Pearson BTEC Nationals in Creative Media

Delivery Guide

Pearson BTEC Level 3 National Extended Certificate in Creative Digital Media Production

Pearson BTEC Level 3 National Extended Certificate in Creative Digital Media Production (Tech Level)

Pearson BTEC Level 3 National Foundation Diploma in Creative Digital Media Production

Pearson BTEC Level 3 National Diploma in Film and Television Production (Tech Level)

Pearson BTEC Level 3 National Diploma in Film and Television Visual Effects (Tech Level)

Pearson BTEC Level 3 National Diploma in Sound Production (Tech Level)

Pearson BTEC Level 3 National Diploma in Digital Publishing (Tech Level)

Pearson BTEC Level 3 National Diploma in Games Design and Development (Tech Level)

Pearson BTEC Level 3 National Extended Diploma in Creative Digital Media Production

First teaching September 2016, 2017

Edexcel, BTEC and LCCI qualifications

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Welcome to your BTEC National delivery guide

This delivery guide is a companion to your BTEC Level 3 National specifications and Sample Assessment Materials (SAMs). It contains a wealth of ideas for teaching and learning, including practical activities, realistic scenarios, ways of involving employers in delivery, managing independent learning and how to approach the assessment. The aim of this guide is to show how the content of the specifications might work in practice and to inspire you to start thinking about different ways to deliver your course.

The guidance has been put together by teachers who have been close to the development of the qualifications, who understand the challenges of finding new and engaging ways to deliver a BTEC programme in the context of the new qualifications from 2016.

Guidance about the new features of the BTEC Level 3 Nationals is included, providing an explanation of how these work and what you will need to consider as you plan the delivery of the qualification(s).

You will also find a list of carefully selected resources for each unit, including suggestions for books, websites and videos that you can either direct your learners to use or that you can use as a way to complement your delivery.

We hope you will find this guidance relevant and useful.

Enjoy your course!

What's new

The BTEC Level 3 Nationals 2016 are the result of more than three years' consultation with employers, higher education institutions, and many thousands of teachers and managers in colleges and schools. Our aim has been to ensure that the BTEC Level 3 Nationals continue to provide a recognised and well-respected route into employment or higher education by meeting the needs of these key stakeholders, and that learners continue to enjoy a stimulating course of study and develop the skills and attributes to enable them to progress.

As a result of this consultation, and on the advice of employers, higher education and, most importantly, of those of you who teach BTEC, some key changes have been made to the BTEC Level 3 Nationals. These are described throughout this delivery guide and include the following.

- **Updated content and a larger proportion of mandatory content** – both employers and universities said that they wanted a greater consistency in the coverage of the subject from BTEC students. Employers wanted to see systematic coverage of core knowledge and skills for their sector, and for the Nationals to reflect up-to-date industry practice.

- **The re-introduction of external assessment** – employers were keen to see an element of rigour and consistency across the country in terms of assessment, while HEIs wanted students to be better prepared for meeting deadlines and preparing for formal exams, where appropriate. Both were keen to see learners applying their knowledge and skills to new contexts through synoptic projects and assessments.

- **A focus on employability skills** – the BTEC approach to learning, through projects, self-directed assignments, group work and work placements, has always supported the development of employability skills, such as self-management. In the new Nationals the balance of cognitive and skills work has been carefully calibrated to ensure that learners get a range of different opportunities across their course.

- **Broader assessment in internal units** – the assessment criteria for each unit are carefully structured to set a clear level of demand. Distinction criteria encourage and require depth of study and include demonstration of the application of knowledge and understanding as well as a synoptic element for the learning aim/unit.

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- **Alignment with DfE criteria for performance measures for 16–19 year olds in England** – all new BTECs are designed as either Applied General qualifications or Tech Levels to fulfil criteria for inclusion in 2018 performance tables and funding for 16–19 and 19+ learners.

To support the transition to the BTEC Level 3 Nationals 2016, we are providing an enhanced support programme with exemplar and practice materials, available from the end of 2015, and training, from April 2016. Please see the *Support and resources* section for details of the support and the link to sign up to training, which will continue from 2016 throughout the lifetime of the qualification.

Notes

- The specification tells you what must be taught and what must be assessed. This delivery guide gives suggestions about how the content could be delivered.

- The suggestions given in this delivery guide link with the Authorised Assignment Briefs provided by Pearson but they are not compulsory; they are designed to get you started and to spark your imagination.

Contents

OVERVIEW

Delivery Guides as support

In the specification, the 'Unit content' tells you what must be taught and the 'Assessment criteria' what must be assessed. The 'Essential information for assessment decisions' explains what the assessment criteria mean.

This delivery guide provides suggestions and ideas on how to plan and deliver the qualification, and includes a summary of recent changes.

Unit-by-unit guidance has been provided, which includes suggestions on how to approach the learning aims and unit content. Teaching, learning and formative assessment activities are also suggested. You will also find delivery plans to help you timetable your course and ensure that your learners are well prepared for internal and external assessments.

Links to carefully selected resources are provided for each unit. The lists include suggestions for books, websites and videos, which will help you plan and deliver your course. Alternatively, you may wish to direct your learners to these resources.

Use the delivery guides as model templates or an interpretation on which you can base your own plan. Every delivery guide presents each unit as an exemplar, highlighting Creative Media links to motivate tutors and learners.

Significant changes for those teaching the new 2016–18 specification

The BTEC Level 3 Nationals (FT 2016–2017) contain significant changes to the previous 2010 version. These changes reflect the views and demands of teaching practitioners, those working in this sector, and government bodies with oversight of the qualifications.

For those familiar with the older 2010 specification, these changes are summarised in the table below:

Change	New 2016, 2017, 2018		Old 2010	
Programme Name	Creative Digital Media Production		Creative Media Production	
Qualification Names/GLH	Extended Certificate	360 GLH	Certificate in Creative Media Production	180 GLH
	Extended Certificate in CDMP Tech Level Extended Certificate (DFVP, DCP, DGP)	360 GLH	Subsidiary Diploma	360 GLH
	Foundation Diploma	510 GLH	90 credit Diploma	540 GLH
	Tech Level Diploma (FTP, FTVE, SP, DP, DGDD)	720 GLH	Diploma	720 GLH
	Extended Diploma (FTR, IPM, DG)	1080 GLH		
	Extended Diploma	1080 GLH	Extended Diploma	1080 GLH
Mandatory Units	Extended Certificate = 3 Tech Level Extended Certificates = 2 Foundation Diploma = 4 Tech Level Diploma = 4–5 (depending on pathway) Extended Diploma = 7		Certificate = 2 Subsidiary Diploma = 3 90 credit Diploma = 4 Diploma = 6–7 (depending on pathway) Extended Diploma = 7–8 (depending on pathway)	
Optional Units	Extended Certificates = choose from 5 Tech Level Extended Certificate = choose 3 Foundation Diploma = 4 Tech Level Diploma = 4 (5 for FTVE) Extended Diploma = 7		Certificate = 8, 6, 10, 11 Subsidiary Diploma = 6, 8, 10, 11, 15 or 18 (depending on pathway) 90 credit Diploma = 7, 9, 10, 14, 17 or 71 (depending on pathway)	

8		Diploma = 11, 12, 15, 21 or 71 (depending on pathway) Extended Diploma = 11, 12, 21 or 71 (depending on pathway)
Assessment	Internal and External assessment	Internal only through assignments

Structure

The table below shows the structure of the qualifications in the Creative Digital Media Production suite of qualifications. By a clear understanding of the different programmes, pathways and units - and careful selection - centres can tailor the qualification to suit the needs of their learners and the resources of the centre. Ensure that you use the full structure (found in the specification) when planning your course:

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)	Foundation Diploma (510 GLH)	Extended Diploma (1080 GLH)	Extended Diploma (1080 GLH)		
					FTR	IPM	DG
1 Media Representations	90	M	M	M	M	M	M
2 Working in the Creative Media Industry	90			M	M	M	M
3 Digital Media Skills	120			M	M	M	M
4 Pre Production Portfolio	90	M	M	M	M	M	M
5 Specialist Subject Investigation	120			M	M	M	M
6 Media Campaigns	90		M	M	M	M	M
7 Media Enterprise*	60						
8 Responding to a Commission	120	M	M	M	M	M	M
9 App Production	60		O	O		O	O
10 Film Production – Fiction	60	O	O	O	O		O
11 Radio Production – Fiction	60	O	O	O	O		O
12 Website Production	60	O	O	O		O	O
13 Digital Games Production	60	O	O	O			O
14 Digital Magazine Production	60	O	O	O		O	
15 Advertising Production	60		O	O	O	O	
16 Factual Production	60		O	O	O		
17 News Production	60		O	O	O		
18 Storyboarding for Digital Media	60			O	O		

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)	Foundation Diploma (510 GLH)	Extended Diploma (1080 GLH)	Extended Diploma (1080 GLH)		
					FTR	IPM	DG
19 Scriptwriting	60			O	O		
20 Single Camera Techniques	60			O	O		
21 Film Editing	60			O	O		
22 Interviewing Techniques	60			O	O	O	
23 Stop Motion Animation*	60						
24 Sound Editing	60			O	O		
25 Sound Recording	60			O	O		
26 Writing Copy	60			O		O	
27 Digital Photography	60			O		O	
28 Image Manipulation Techniques	60			O		O	
29 2D Digital Graphics	60			O		O	
30 Page Layout and Design for Digital Media	60			O		O	
31 Coding for Web Based Media	60			O		O	
32 Concept Art for Computer Games	60			O			O
33 2D Animation	60			O			O
34 Game Engine Scripting	60			O			O
35 Multi Camera Techniques	60						O
36 Lighting Techniques*	60						
37 Visual Effects*	60						
38 Sound Mixing	60			O	O		
39 Live Radio Broadcasting*	60						
40 3D Modelling	60			O			O
41 3D Environments	60			O			O
42 Games Testing	60			O			O
43 3D Digital Animation	60			O			O

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)			Diploma (720 GLH)				
		DFVP	DCP	DGP	FTP	FTVE	SP	DP	DGDD
1 Media Representations*	90								
2 Working in the Creative Media Industry*	90								
3 Digital Media Skills	120	M	M	M	M	M	M	M	M
4 Pre Production Portfolio*	90								
5 Specialist Subject Investigation*	120								
6 Media Campaigns*	90								
7 Media Enterprise	60				M	M	M	M	M
8 Responding to a Commission	120				M	M	M	M	M
9 App Production	60		O	O				O	O
10 Film Production – Fiction	60	M			M	M			
11 Radio Production – Fiction	60						M		
12 Website Production	60		O					M	
13 Digital Games Production	60			M					M
14 Digital Magazine Production	60		M					O	
15 Advertising Production*	60								
16 Factual Production*	60								
17 News Production*	60								

Unit (number and title)	Unit size (GLH)	Extended Certificate (360 GLH)			Diploma (720 GLH)				
		DFVP	DCP	DGP	FTP	FTVE	SP	DP	DGDD
18 Storyboarding for Digital Media	60	o			o	o			
19 Scriptwriting	60	o			o		o		
20 Single Camera Techniques	60	o			o	o			
21 Film Editing	60	o			o	o			
22 Interviewing Techniques	60		o				o	o	
23 Stop Motion Animation	60	o			o				
24 Sound Editing	60	o			o	o	o		
25 Sound Recording	60	o			o		o		
26 Writing Copy	60		o					o	
27 Digital Photography	60		o					o	
28 Image Manipulation Techniques	60		o					o	
29 2D Digital Graphics	60		o					o	
30 Page Layout Design for Digital Media	60		o					o	
31 Coding for Web Based Media	60		o				o	o	
32 Concept Art for Computer Games	60			o					o
33 2D Animation	60			o		o			o
34 Game Engine Scripting	60			o					o
35 Multi Camera Techniques	60	o			o				
36 Lighting Techniques	60	o			o	o			
37 Visual Effects	60					M			
38 Sound Mixing	60						o		
39 Live Radio Broadcasting	60						o		
40 3D Modelling	60			o					o
41 3D Environments	60			o		o			o
42 Games Testing	60			o					o
43 3D Digital Animation	60			o		o			o

In order to maximise the quality of learning, the structure of the suite of BTEC Creative Digital Media Production qualifications has been developed with significant input from employers, higher education institutions and delivery centres. To meet the needs of various learners the qualification suite contains both Applied General and Tech Level qualifications. An Applied General qualification offers a broad area of study of the media sector, whereas a Tech Level qualification is focused on more specific skills and requires meaningful employer engagement. Both of these qualification types will allow learners to progress on to higher education. Learners on the Applied General smaller-sized qualifications, such as the Extended Certificate and the Foundation Diploma, can move on to the Extended Diploma. Learners on the Tech Level Extended Certificates can progress onto Diploma qualifications in the same specialism. This flexibility supports different progression routes and allows learners to keep their options open.

Building on the success of the flexibility of previous Nationals in Creative Media Production, the new BTECs enable the delivery of units to be tailored to different contexts, depending on the centre. The structure of the qualifications was also built with an awareness of the transferable creative skills between media disciplines. Feedback from creative sector employers and higher education institutions drove the development of increased mandatory content to ensure that every learner has a solid foundation of underpinning skills and understanding to build on.

The mandatory content of the Applied General qualifications ensures understanding of key areas such as media representations, working in the creative media industries, media campaigns, specialist subject investigations and how to prepare a pre-production portfolio. The Tech Level qualifications focus more on enabling learners to move into industry through employment or apprenticeship, by ensuring that they can respond to a commission, develop essential digital media skills, including enterprise skills, and can engage in the production process in their chosen specialist field through their mandatory content.

The external assessments within the qualification combine up-to-date industry knowledge with the practical, research-based and behavioural skills necessary to succeed in higher education and industry. The qualifications designed for progression to higher education include assessments that are both practical and theoretical. The external assessments within the Tech Level Extended Certificates and Diplomas ensure realistic and highly vocational learning experiences.

We firmly believe in the relevance of learning through employer engagement and each of the qualifications provides ideas for how this can be achieved. Most of the units highlight where employer involvement would benefit the learning and make useful suggestions for how to initiate this participation.

The Tech Level qualifications require meaningful employer involvement that is relevant to the industry, sector or occupation. This can include:

- structured work experience and placements
- projects and assessments with input from industry practitioners
- co-delivery of units with industry practitioners
- industry practitioners contributing to assessment.

An 'at a glance' summary table of the structure of the qualifications has been provided below, but ensure that you use the full structure found in *Section 2* of the specification when planning your course.

Overview of the Creative Digital Media qualification suite

The Creative Digital Media BTEC qualifications suite offers a combination of mandatory and optional units with external assessment which will drive the quality of learning. It will also help learners take increased responsibility for their own development.

The demands within industry mean learners need to be able to manage deadlines and communicate their ideas in different ways. This assessment methodology closely matches experiences learners will have in employment and thus increases their chances of successful progression.

The units provide valuable ways for learners to develop highly transferable skills and to be assessed in a synoptic way. All of the units can contain opportunities for stakeholder or employer engagement to stimulate learning experiences.

BTEC Level 3 National Extended Certificate in Creative Digital Media Production

Centres may need a general introduction to the media sector and the National Extended Certificate in Creative Digital Media Production is designed to be delivered in combination with other qualifications. By selecting one of the optional units, centres can focus the qualification offer on a particular media sector as learners progress through the qualification.

Extended Certificate in Creative Digital Media Production	
Sector	**Topics**
Film & TV	Digital Film and Video Production (Fiction)
Games	Digital Games Production
Digital Publishing	Digital Content Production

BTEC Level 3 Tech Level Extended Certificates in Digital Film and Video Production, Digital Content Production, and Digital Games Production

The Level 3 Tech Level extended certificates in Digital Film and Video Production, Digital Content Production, and Digital Games Production are designed to provide a technical introduction to the different sectors.

Extended Certificate in Creative Digital Media Production	
Sector	**Topics**
Film & TV	Digital Film Video Production
Digital Content Production	Digital Magazine Production Coding Web- based Media
Games	Digital Games Production

BTEC Level 3 National Foundation Diploma

Centres may need a creative National Foundation Diploma to be delivered in combination with other qualifications or as a standalone one-year program. While there are a significant number of mandatory units, the qualification can easily be flavoured to support some specialisation depending on the centre's facilities and expertise.

Foundation Diploma in Creative Digital Media Production	
Sector	**Topics**
Film & TV	Film Production (Fiction)
	Factual Production
Radio	Radio Production (Fiction)
	News Production
Web	Website Production
	App Production
Games	Digital Games Production
	Advertising Production
Digital Publishing	Digital Magazine Production
	Advertising Production

BTEC Level 3 National Tech Level Diploma

The National Diplomas in Film/TV Production, Film and Visual Effects, Sound Production, Digital Publishing and Digital Games Design and Development have mandatory units, but these can easily be flavoured to produce outcomes covering almost all areas within these sectors. The courses could also be selective of the optional units alongside the mandatory content.

The following are some examples of unit choices that could be made to focus the courses.

Film/TV Production National Diploma	
Sector	**Topics**
Film	Storyboarding for Digital Media
	Scriptwriting
	Film Editing
	Sound Editing
	Multi Camera Techniques
	Lighting Techniques
TV	Storyboarding for Digital Media
	Scriptwriting
	Single Camera Techniques
	Stop Motion Animation
	Sound Recording
	Lighting Techniques

Film & TV Visual Effects National Diploma	
Sector	**Topics**
Film	Storyboarding for Digital Media Film Editing Sound Editing Lighting Techniques 3D Environments
TV	Storyboarding for Digital Media Single Camera Techniques 2D Animation Lighting Techniques 3D Digital Animation

Sound Production National Diploma	
Sector	**Topics**
Radio	Scriptwriting Interviewing Techniques Sound Editing Sound Recording Sound Mixing Live Radio Broadcasting
Interactive Media	Scriptwriting Interviewing Techniques Sound Editing Sound Recording Coding for Web Based Media Sound Mixing

Digital Publishing National Diploma	
Sector	**Topics**
Digital Publishing	Interviewing Techniques Writing Copy Digital Photography Image Manipulation Techniques 2D Digital Graphics Page Layout & Design for Digital Media
Web	App Production Writing Copy Image Manipulation Techniques 2D Digital Graphics Page Layout & Design for Digital Media Coding for Web Based Media

Digital Games Design and Development National Diploma	
Sector	**Topics**
Games Design	App Production
	Concept Art for Computer Games
	2D Animation
	Game Engine Scripting
	3D Modelling
	3D Environments
Games Development	Concept Art for Computer Games
	Game Engine Scripting
	3D Modelling
	3D Environments
	Games Testing
	3D Digital Animation

BTEC Level 3 National Extended Diploma in Creative Media Production

This qualification is designed to be delivered over a two year period and is aimed at post-16 learners who want to study media-related degree courses in Higher Education. Learners gain knowledge and understanding of creative digital media production and develop an understanding of how to work within the media industries.

Learners can choose to follow a general programme of study, learning digital production skills in a variety of different media, or they can chose to follow an endorsed route in Film, Television and Radio or Interactive Publishing and Media or Digital Games.

While there are a significant number of mandatory units, the qualification can easily be flavoured to support some specialisation by choosing one of the three specific pathways to follow.

Making the right choices for your learners

The suite of qualifications is meant to be inclusive and support learners in their progression. The prior achievement and aspirations of learners is key to advising the most appropriate study programme.

For learners who wish to progress directly to higher education, there are a range of qualifications in the suite that ensure that they will have the skills to cope with the academic and independent learning. In recognition of some of the highly specialised areas within the creative digital media industry, the smaller qualifications provide opportunities for learners to have the vocational experience in parallel with other specialist qualifications. The Tech Level qualifications support progression into industry at entry or apprenticeship levels with the understanding required to progress in their careers.

Below are some examples of the potential progression routes for learners.

16 year old student choice		
Progression intention	**Prior achievement**	**Potential BTEC National route**
Creative Media subject in HE e.g. BA (Hons) in Computer Animation	5 GCSEs C or above with Maths and English	BTEC National Extended Diploma in Creative Digital Media Production.
Creative Media related subject in HE e.g. BA (Hons) in Marketing and Communication	5 GCSEs C or above with Maths and English	BTEC National Extended Certificate in Creative Digital Media Production with A Levels in English Language and Business.
HE, but uncertain of course	5 GCSEs C or above with Maths and English	Year 1: BTEC National Foundation Diploma in Creative Digital Media Production
Year 2: If firming up for creative sector, then continue into BTEC National Extended Diploma in Creative Digital Media Production. If moving away from sector, a second Foundation Diploma in a complementary sector.
Apprenticeship in Production Lighting or Studio Operations	5 GCSEs C or above with Maths and English	Tech Level BTEC National Diploma in Film and Television Production.
Creative Media subject in HE e.g. BA (Hons) in Broadcast Audio Technology	5 GCSEs C or above, but not including maths and / or English	Year 1: BTEC National Foundation Diploma in Creative Digital Media Production with English and/ or Maths.
Year 2: BTEC National Extended Diploma in Creative Digital Media Production.

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BTEC Higher National course e.g. HND in Creative Media Production	BTEC Level 2 First Diploma in Creative Digital Media Production	BTEC National Foundation Diploma in Creative Digital Media Production with English and/or Maths

19+ Student choice		
Progression	**Prior achievement**	**Potential BTEC National route**
Traineeship e.g. Trainee Games Designer	No experience in media production, but with 5 GCSEs C or above including Maths and English	Tech Level National Diploma in Digital Games Design and Development.
Foundation degree e.g. FdA Interactive Media Development	Some experience in media production with 5 GCSEs C or above including Maths and English	BTEC National Foundation Diploma in Creative Digital Media Production.

Making contact with employers

Employer contact is one of the most cherished experiences that BTEC National learners can have, by ensuring realistic and valuable learning. The commitment of teaching teams and time costs can be offset by the increase in responsibility taken by students due to employer engagement.

Partnerships between companies and freelance practitioners can often build an annual collaboration that allows an understanding about what all the people involved can gain from the partnership. The workbook that accompanies the work experience in the qualification is a useful tool to use with both employers and learners to ensure that they both get the most worthwhile experience, and the learner produces the best evidence towards their assessment. Here are some ideas that may support centres expanding their employer engagement.

Freelance practitioners	• For live briefs, guest speakers and employer feedback, contact a local freelance or retired practitioner. • For ensuring projects are realistic, submit them to a local practitioner for discussion and revision. • Small companies, such as digital agencies, can often spare short amounts of time to help design or give feedback on projects. • Contact small local media companies directly and suggest how they may be able to support your learners through experiences that may include mock interviews, pitches, portfolio reviews, case studies and product feedback.
Bigger business	• For work experience and placements, contact the local education business partnership. • For live projects, real projects and competitions, approach a large local employer through their human resource department. • For sponsorship of facilities and equipment along with collaboration, approach medium size companies.
Local stakeholders	• Contact local charities who are often keen for the publicity that students can generate about their cause, and who could work with students to develop specific viral advertising campaigns. • Work with local organisations who need to attract attention to particular activities and events through live projects such as websites, apps, audio and video production.
Prior students	• For support in teaching and workshops or in case study seminar and question and answer sessions, contact previous students who have moved into industry and started their careers and who can provide meaningful experiences and give feedback on professional workflow.

Employability skills

Employers not only look for technical skills, but also employability skills. These include:

1 **Self-management**: readiness to accept responsibility, flexibility, time management, readiness to improve own performance.

2 **Team working**: respecting others, co-operating, negotiating/persuading, contributing to discussions.

3 **Sector and customer awareness**: basic understanding of the key drivers for success and the need to provide customer satisfaction.

4 **Problem solving**: analysing facts and circumstances and applying creative thinking to develop appropriate solutions.

5 **Communication and literacy**: application of literacy, ability to produce clear, structured written work, and oral literacy (including listening and questioning).

6 **Application of numeracy**: manipulation of numbers, general mathematical awareness and its application in practical contexts.

7 **Application of information technology**: basic IT skills including familiarity with word-processing, spreadsheets, file management and use of internet search engines.

In the annual CBI/Pearson education and skills survey, *Inspiring Growth 2015*, it was noted that employers (+65 per cent) expect to need more employees with higher skills. They also report that there needs to be more done around skills in basic literacy (50 per cent), numeracy (50 per cent) and IT skills (46 per cent).

The development of employability skills has been considered during the creation of this BTEC Creative Digital Media Production suite of qualifications – further details of these can be found in the qualification specifications.
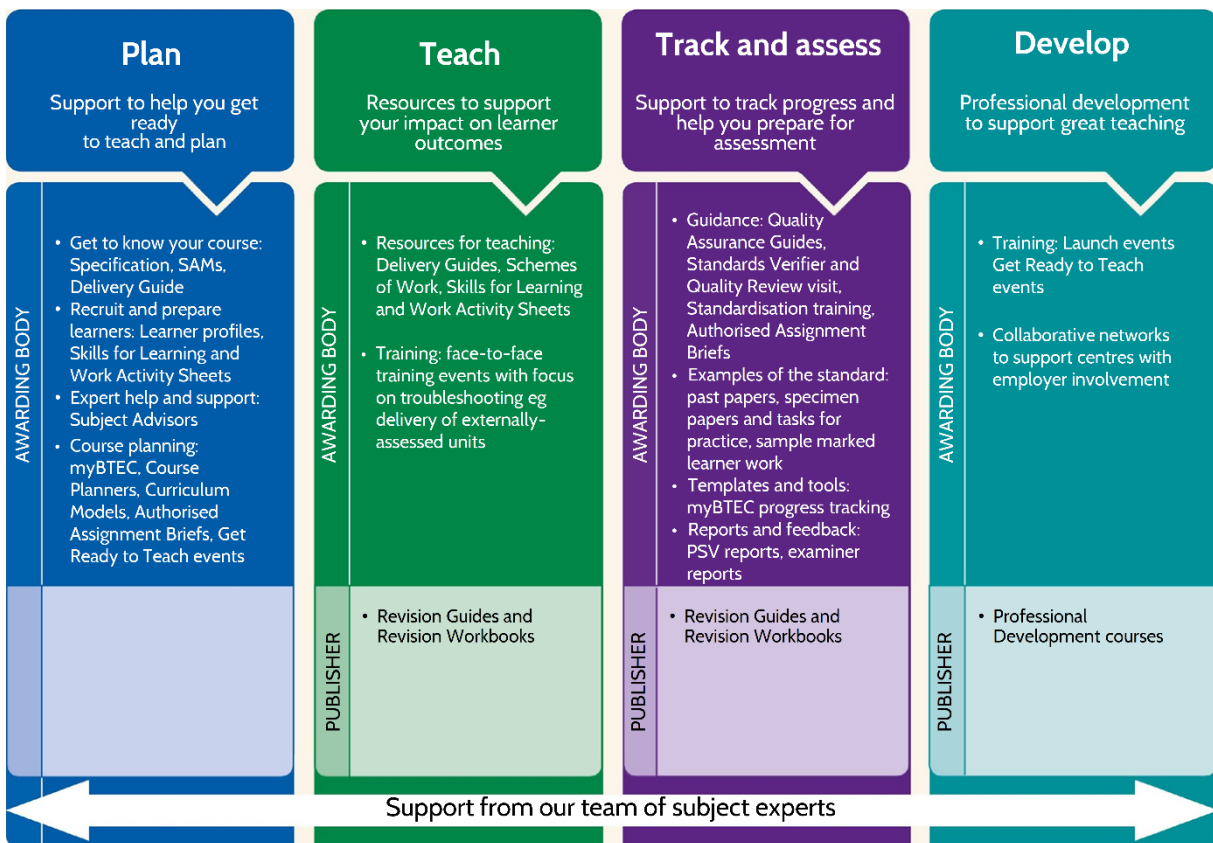
SUPPORT AND RESOURCES

There is a wealth of resources available to ensure that you feel confident delivering your BTEC National qualification throughout your entire course. Refer to the Pearson website for a full list of resources available

https://qualifications.pearson.com/en/qualifications/btec-nationals/creative-digital-media-production-2016.html#tab-3

As well as the free resources supporting the qualification, provided by Pearson as an Awarding Organisation, Pearson Learning Services ('Publisher' in the tables below) provides a range of engaging resources to support BTEC Level 3 Nationals, including:

- textbooks in e-book and print formats
- revision guides and revision workbooks in e-book and print formats
- teaching and assessment packs, including e-learning materials via the Active Learn Digital Service.

Plan	Teach	Track and assess	Develop
Support to help you get ready to teach and plan	Resources to support your impact on learner outcomes	Support to track progress and help you prepare for assessment	Professional development to support great teaching
AWARDING BODY • Get to know your course: Specification, SAMs, Delivery Guide • Recruit and prepare learners: Learner profiles, Skills for Learning and Work Activity Sheets • Expert help and support: Subject Advisors • Course planning: myBTEC, Course Planners, Curriculum Models, Authorised Assignment Briefs, Get Ready to Teach events	**AWARDING BODY** • Resources for teaching: Delivery Guides, Schemes of Work, Skills for Learning and Work Activity Sheets • Training: face-to-face training events with focus on troubleshooting eg delivery of externally-assessed units	**AWARDING BODY** • Guidance: Quality Assurance Guides, Standards Verifier and Quality Review visit, Standardisation training, Authorised Assignment Briefs • Examples of the standard: past papers, specimen papers and tasks for practice, sample marked learner work • Templates and tools: myBTEC progress tracking • Reports and feedback: PSV reports, examiner reports	**AWARDING BODY** • Training: Launch events Get Ready to Teach events • Collaborative networks to support centres with employer involvement
PUBLISHER	**PUBLISHER** • Revision Guides and Revision Workbooks	**PUBLISHER** • Revision Guides and Revision Workbooks	**PUBLISHER** • Professional Development courses
Support from our team of subject experts			

Further to the 'publisher' resources listed above, other publishers, in addition to Pearson, may produce textbooks that are endorsed for BTEC. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

There are also a number of people who are available for you to speak to:

Subject Advisor
Susan Young
UK: 020 7010 2181 Intl: +44 (0)20 7010 2181 TeachingMedia@pearson.com

Standards Verifiers – they are subject specialists who can support you with ensuring that your assessment plan is fit for purpose and whose role is to confirm that you are assessing your learners to national standards as outlined in the specification by providing quality assurance through sampling.

Curriculum Development Managers (CDMs) – they are regionally based and have a full overview of the BTEC qualifications and of the support and resources that Pearson provides. CDMs often run network events.

Customer Services – the 'Support for You' section of our website gives the different ways in which you can contact us for general queries. For specific queries, our service operators can direct you to the relevant person or department.

Training for the new BTEC Level 3 Nationals can be found on the Pearson website here:

http://qualifications.pearson.com/en/support/training-from-pearson-uk.html

Unit 1: Media Representations

Delivery guidance

Approaching the unit

This unit is assessed externally through an on-screen examination. During the examination, learners will respond to either an entire media product or extracts from two or more media products. The media products could be drawn from any sector, which includes moving image, games, print and interactive media. Learners need to be prepared to compare two different media texts or different aspects of the same clip.

This is a synoptic unit, drawing on learners' understanding of media production and consumption from across the qualification as the basis for an analysis of media products and their messages, meanings and values. Although learners may be more familiar with one particular sector, they will need to be conversant with the stylistic codes operating across moving image, games and print media.

To succeed in the examination, learners need to understand how representations are constructed, how they carry meaning and how they are interpreted by audiences. They also need to understand the effects of those representations on the audience and society in general. It is key for learners to be well practised at applying their understanding to different media texts.

Delivering the topics

Analysis of as wide a range of texts as possible should be encouraged, to extend and deepen learners' understanding of the process and effects of constructing representations.

Opportunities for learners to apply their understanding of media representations developed through this unit should be maximised within the optional units, such as when planning and pitching an idea for a new digital media product. Learners will be engaging with the process of constructing representations through their work in the optional units and learners' understanding of the concept of representation will be strengthened through opportunities to analyse their own digital media products.

For topic A, learners must engage with theories of media representation. Learners will need to know the work of Hall, Dyer and Mulvey and questions could be asked about the theories themselves or the application of the theories to specific texts.

Analysing adverts is a good way to introduce important concepts surrounding the construction of representation, which will allow learners to contextualise Hall's work on the role of the audience in constructing meaning. Analysing the learners' own production work, such as planning and producing music videos, short films or games, and focusing on the use of stereotypes will help to foster a deeper understanding of Dyer's work on stereotyping. Exploring the representation of characters in computer games is a good starting point to develop an understanding of Mulvey's work on audience positioning.

For topic B, learners will be introduced to different theoretical approaches to constructing media messages. The notion of 'encoding' can be introduced

through practical activities in which learners construct their own representations, which could be simple photographs of other learners or complex practical productions developed in the optional practical units. Learners can be offered a way into 'decoding' media texts through analysis of the same text, for example the front cover and contents page of a magazine, from different perspectives.

When focusing on 'semiotics', 'hypodermic', 'uses and gratifications' and 'encoding/decoding' theoretical approaches to representation, learners should be encouraged to apply each theory to specific texts before considering the strengths and weaknesses of each approach.

Learners could approach the notion of genre expectation practically by contributing to group presentations on different genres. Each group could select a different genre and explain the established generic conventions, and the resultant audience expectations, through the selection of suitable textual examples. Learners could continue to add examples, explanations and improvements to different presentations by considering subgenres, hybrids and subversions of each genre. They could then explain the impact on the audience of such subversions of audience expectations.

For topic C, learners could draw on their existing knowledge of stylistic codes in moving image, print media and games through different practical activities to clarify their knowledge of different techniques. Workshops on camerawork, lighting effects, editing techniques, audio editing and design mock-ups are all ways to introduce learners to different stylistic codes and their effects.

Learners will need opportunities to analyse how stylistic codes create meaning in specific media texts. Learners could be given short- and long-answer questions that focus on just one area (e.g. the use of sound), and on the effect of combining stylistic codes, (e.g. how camerawork, lighting and editing combine to create meaning in a specific sequence).

For topic D, learners should be given opportunities to consider the effects of representation through analysis of different media texts. For example, they could analyse music videos and magazines to consolidate and extend their existing knowledge and understanding of the effects of media messages, and how media texts can reinforce or challenge a dominant ideology.

Assessment guidance

Learners should be prepared to answer short- and long-answer questions on an unseen media product or extracts from different unseen media products. As these products could be drawn from film, television, video, games, print and interactive media, learners will need to be well practised in analysing and comparing a wide variety of media texts. Reviewing appropriate examples of written analyses of media texts would enable learners to see the language, use of terminology and structure of a distinction level response.

Learners will have control over the media texts throughout the two-hour examination. For example, they will be able to play and pause moving image clips whenever they choose. It would be beneficial to learners if this was replicated for mock examination questions.

Each examination will have a particular focus, and possible topics include gender, ethnicity, age, social groups and places. Consequently, the media texts chosen for the examinations will always feature representations of one of these topics. It should be noted that ddistinction level responses will need to be supported by detailed textual references and sophisticated analyses of the effects and consequences of the representations identified within the texts.

Getting started

This gives you a starting place for one way of delivering the unit.
Activities are provided in preparation for the external assessment.

Unit 1: Media Representations

Introduction

To introduce learners to the concept of representation, you could show them different representations of the same person, event or place drawn from different media texts. A practical exercise to identify the similarities and differences between the different depictions will introduce learners to the idea that everything they see in the media is a representation of something, and that all media representations are constructions.

A review of the sample assessment material will enable learners to understand the format of the examination. The context for study should be established at the beginning of the unit. Make it clear that the examination could cover gender, ethnicity, age, social groups and places, and that the products for study could include film and TV clips, advertisements, computer games, music videos, magazines or websites.

Following review of the sample assessment material, ask learners to produce an aide memoire that defines the command words that could be used in the examination. This will establish what each command word requires the learners to do. N.B. The command words are also defined in the specification.

Topic A – Media messages

Introduction to theories and the framework.

● Stuart Hall's work on representation and the media could provide an introduction to the concept of media representations.

  o Introduce learners to the notion that media products represent 'reality' from a particular point of view through any news story on television, the web or in print.

  o Ask learners to consider representations as a reflection/distortion of reality and to debate notions of a 'true meaning'.

  o Then put the concept of representation in a more contemporary context by considering to what extent meanings are constructed by the audience.

● Hall's work on the 'effects and consequences' of representation can be used as a framework to consider that meaning is never fixed but is a process of negotiation.

  o Ask learners to consider the idea that meaning does not exist outside of representation. They can do this by analysing advertisements from TV or print.

  o Ask learners to suggest how different meanings can be constructed, depending on how you identify with the representations being depicted.

  o Key questions for learners could include: to what extent can meaning be fixed or naturalised?

● Introduce learners to Richard Dyer's idea that stereotyping involves a number of processes. You could do this by asking learners to consider television soap operas. Ask them to explore how common, shared characteristics are exaggerated within a stereotypical character. Use this to lead into learners analysing:

  o the values and assumptions conveyed through stereotyping

  o the power relationships that Dyer recognised.

- Learners need an opportunity to engage with other theoretical perspectives on stereotyping.
    - Use stereotypical characters from TV sitcoms to explore with learners how stereotyping can be used as a media shorthand to communicate quickly with the audience.
    - They should also consider how stereotypical characters can develop over time and what effect this may have upon the audience.
- Use comics to provide learners with the opportunity to explain how a positive stereotype can be constructed. From here they can explore:
    - how it can challenge existing stereotypes
    - the extent to which stereotypical representations contain elements of truth
    - how stereotypical representations can develop over time.
- A further development/ challenge activity could be to get learners to storyboard their own comic and then examine their own reliance on, reinforcement of or challenge to stereotypes.
- Music videos are one way to introduce learners to the representation of sub-cultures. Through analysis of music videos, learners can explore:
    - how the representation of a particular sub-culture is constructed
    - the extent to which this representation creates an 'identity' that enables the members of the sub-culture to differentiate themselves from others
    - the extent to which audiences negotiate meaning through their own relationship with the representations of collective identities.
- Stereotyping is a significant concept in the study of media representation and, to consolidate their learning, ask learners to produce a presentation to explain how stereotypes are constructed in different media texts. The presentation should also show:
    - how stereotypical representations can evolve and be challenged
    - the effects of positive and negative stereotyping
    - how identities are constructed and negotiated.
- Learners could be introduced to Laura Mulvey's concept of the gaze through analysis of selected film clips to identify different types of gaze (e.g. spectator's gaze, intra-diegetic gaze, direct gaze and the look of the camera). They can then describe the effects of these upon different viewers.
    - Extend this area of study through analysis of advertisements, where learners explain how the male and female gaze operates.
    - Ask them to consider the effect upon viewers and society in general. Criticisms of, or challenges to, the concept of the gaze should also be considered.
- Learners will need the opportunity to explore the effects of audience positioning.
    - Starting with the analysis of a selection of film clips, ask learners to explain how the viewer is encouraged to identify with a particular character or how the viewer is deliberately alienated.
- The concepts of audience positioning, objectification, voyeurism, scopophilia and exhibitionism, and their effects upon the viewer, could all be clarified by asking learners to analyse screen recordings from computer games.

Topic B – Understand media messages

Constructing messages.

- To introduce the idea of encoding, you could have learners take photographs of each other, thinking carefully about mise-en-scene, angle and lighting.

  o Learners could be encouraged to consider how the image was constructed through a process of selection, presence and absence.

  o Notions of what is present and what is absent in a representation could be explored further through a series of advertisements.

  o Studying advertisements will also provide the opportunity to introduce the concepts of open/closed texts, polysemy and anchorage.

- To provide learners with a way into decoding media texts, learners could take the same magazine cover and contents page and separate into groups. Each group should provide an analysis of the magazine from either the preferred, negotiated, oppositional or aberrant perspective. Groups should then share and discuss their findings.

- To engage with the concept of intertextuality, you could ask learners to record a director's commentary over a short TV sequence to highlight allusions or references to other texts, genres and discourses. This exercise will require consolidation, perhaps through an individual analysis of how intertextuality contributes to creating meaning.

  o Use this opportunity to introduce notions of cultural competence, situated culture and cultural experience, and the significance of the background experiences of the audience to the way different people interpret a text.

- Divide each group of learners into two smaller groups and, using screen recordings from controversial computer games, ask each half to provide a reading of those games using either the 'hypodermic' or the 'uses and gratifications' model.

  o Following feedback and a discussion of the strengths and weaknesses of the different models, ask learners to produce a poster to summarise the hypodermic, uses and gratifications and encoding/decoding models. They should include the strengths and weaknesses of each theory.

- Both film posters and magazine covers provide a good opportunity to engage with the concept of semiotics through a description of the technical and stylistic codes evident in the texts (denotation), an analysis of the effect upon the audience and a consideration of the alternative meanings (connotations).

- To introduce the notion of genre expectations, learners could select different film genres. They could use extracts from specific films to produce a short presentation to explain the established generic codes (i.e. content, theme, setting and characterisation) and audience expectations of the genre.

  o The presentations could be rotated around each group to enable further additions, explanations or improvements.

  o Each group could then add a section to the presentations on subgenres, hybrids and subversions of the genre and explain the impact that the subversion has on the audience's expectations.

Topic C – Stylistic codes

Wherever possible, the stylistic codes should be explained through practical exercises, which will provide the knowledge and understanding to enable learners to analyse how these techniques are used to create meaning in specific texts.

  o You could ask learners to take photographs or shoot footage to represent people in the group, experimenting with mise-en-scene, shot types, composition, angles, camera movement, point of view and visual effects.

- o You could hold lighting workshops to explore the effects of different lighting set ups and effects.

- o You could hold editing workshops to edit a series of film clips together, using different editing techniques and adding a director's commentary to explain the effect of each edit.

- o You could ask learners to add sound to a TV drama (with the original soundtrack removed) to experiment with the effect/meaning created by different music, sound effects, dialogue, transitions and effects.

- o You could ask learners to mock up a website homepage or magazine cover to experiment with mode of address, design elements and principles.

- o Learners could storyboard a level from a game and experiment with perspectives.

- Learners will need the opportunity to evaluate the outcomes of their own practical exercises. They should follow this with an analysis of how stylistic codes combine to create meaning in a range of media texts. This is an opportunity for learners to receive feedback on examination style short- and long-answer questions and practise their exam technique.

Topic D – Effects of media messages

Effects of representation

- Studying music videos could provide the opportunity for learners to engage with the effects of representation. Many of these ideas will have been covered already throughout the delivery of the unit. Studying music videos is a chance for learners to consolidate and extend their existing knowledge and understanding. They need to analyse the positive and negative effects of the media representations constructed in the music videos. They should consider objectification, stereotypes and archetypes and the impact of these representations upon individuals, groups and society.

- Use newspaper articles to help explain the concepts of a dominant and counter ideology, before asking learners to analyse a series of magazine pages to analyse the extent to which the magazine reinforces or challenges a dominant ideology.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 9 App Production*
- *Unit 10 Film Production (Fiction)*
- *Unit 11 Radio Production (Fiction)*
- *Unit 12 Website Production*
- *Unit 13 Digital Games Production*
- *Unit 12 Digital Magazine Production*
- *Unit 15 Advertising Production.*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Kidd J – *Representation* (Routledge, 2015)
  ISBN 9781138020719
  This book covers theories of representation, reality TV and alternative media messages.

- Mack R and Ott B – *Critical Media Studies: An Introduction, 2nd Edition* (Wiley-Blackwell, 2014) ISBN 9781118553978
  This book presents an introduction to a broad range of critical approaches in the field of media studies.

- Long P and Wall T – *Media Studies: Texts, Production, Context. 2nd Edition* (Routledge, 2012) ISBN 9781408269510
  This book contains chapters designed to introduce the reader to various analytical approaches to media texts.

- Laughey D – *Media Studies* (Kamera Books, 2009)
  ISBN 9781842433249
  This book contains chapters on media effects, representation, narrative and genre, and new media.

Websites

- http://www.theory.org.uk - David Gauntlett's site about media and creativity in everyday life has resources on media effects and gender and identity.

- http://therepresentationproject.org/
  This site encourages individuals to challenge and overcome stereotyping.

- https://www.youtube.com - offers access to a wide variety of media texts.

Unit 2: Working in the Creative Media Industry

Delivery guidance

Approaching the unit

This unit provides the learner with an opportunity to understand the career and employment opportunities in the media industry. Your learners will be able to demonstrate their understanding of the wide range of job roles available in the media sector, from production to administration. Your learners will be able to produce a profile of themselves in preparation for a career in the media industry. They will be preparing a curriculum vitae (CV) as well as developing a portfolio of work both in hard copy and online. It is essential that your learners understand the networking opportunities that are available to them. They will need to demonstrate that they are able to use networking techniques to explore employment opportunities. At the end of the unit, learners will have a range of materials that they will find useful when considering a career in in a particular sector of the media industry. This would be a good unit to combine with *Unit 3: Digital Media Skills.*

Delivering the learning aims

Learning aim A introduces your learners to the range of job roles in the media industry. These range from creative roles to managerial and administration roles. Your learners may be conversant with production-based roles, such as producer or director, but less familiar with roles such as logistics or financial management. Learners need to understand that all of these roles in the media industry interrelate as they all play a part in the production of successful media products. Your learners may have read the credits at the end of a film or television programme – these provide valuable information on the range of job roles available in these areas. Your learners will need to understand the process by which staff are recruited in the media industry in order to inform their own potential career development. They will also need to understand the range of contracts of employment available in the media industry. This will be vital when they consider their own career in the industry.

Learners will explore the range of ways in which they might find employment opportunities and the skills that they will need to demonstrate when applying for a job role. They must understand the ways in which they might increase their job opportunities through further education, work experience and work shadowing. They also need to know how to update their records of employment to reflect their updated skills.

Your learners will need to understand the standards of behaviour required from them as media professionals. This underpins their work across a range of production units.

Learning aim B requires learners to focus on one particular media sector. This may be a sector that a learner has identified as one in which they feel they have the skills to work effectively. Each learner should be encouraged to choose a relevant sector from the range identified in B1. Learners will demonstrate their understanding of the structure of their chosen media sector and the career opportunities available in that sector. It is essential that each learner is able to explain the legal and ethical issues facing an employee when working in their

chosen sector. This will be invaluable when your learners are working on the production of their own media products.

Learning aim C provides your learners with an opportunity to produce their own profiles that they will be able to use if seeking employment in the media industry. They must be able to produce an appropriate CV as well as a portfolio of their own work. They will need to consider how this information can be supplied to a potential employer or client. Encourage learners to develop appropriate skills across a wide range of materials that will demonstrate a sophisticated approach to their profiles.

Learning aim D provides learners with an opportunity to use networking techniques to explore employment opportunities in the media industry. They need to understand the importance of making and maintaining contacts and using social media as an effective tool for employment.

Learning aim	Key content areas	Recommended assessment approach
A Understand employment and career opportunities in the media industry	**A1** Job roles in the media industry **A2** Recruitment in the media industry **A3** Contracts of employment **A4** Finding employment opportunities **A5** Interview techniques **A6** Increasing job opportunities **A7** Professional behaviour	A report in an appropriate format on the range of job roles available in the media industry. To include: practical job roles as well as management and logistics roles, recruitment activities in the media industry, the nature of contracts of employment. Explanation of relevant activities to find employment in the media industry. Evidence of understanding of the professional behaviour required for working in the media industry.
B Understand the structure and job roles in a media sector	**B1** Structure of a media sector **B2** Career opportunities in a media sector **B3** Ethical issues for employees in a media sector **B4** Legal issues for employees in a media sector	A report in an appropriate format, to demonstrate: understanding of the structure of a media sector in which learners may work, information on the ways in which the sector is structured, the potential career opportunities in that sector. Consideration of the ethical and legal issues inherent in a career in the chosen media sector.
C Produce profiles to gain employment in the media industry	**C1** Curriculum vitae (CV) preparation **C2** Portfolio development **C3** Electronic portfolio **C4** Networking opportunities	Use understanding and knowledge of employment structures and opportunities to produce material to demonstrate skills. Learners will produce a range of profiles that match their career intention in the media industry.
D Use networking techniques to explore employment opportunities in the media industry	**D1** Making contacts **D2** Using social media	Evidence of ability to network in order to explore employment opportunities. Record of networking activities in the form of a report or blog.

Assessment guidance

This unit should be delivered using a range of resources to support learners' understanding of employment and career opportunities. The use of case studies is recommended, as these will provide learners with examples of job roles and career opportunities across the media industry. Encourage your learners to undertake effective research into job roles both across the media industry and in a particular media sector. You should encourage your learners to investigate the ways in which professional media practitioners produce profiles and use social media to make and maintain contacts.

You should encourage learners to produce reports in an appropriate way. Reports could take the form of an illustrated report, or a presentation, or involve use of audio/visual techniques, for example in the form of a documentary. Learners will need to produce a range of reports that they should compile to produce a final report that meets the requirements for assessment. Your learners must be able to produce profiles in an appropriate manner that demonstrates their skills in using appropriate techniques.

In order to achieve higher grades, your learners must be able to demonstrate analytical skills and comprehensive understanding. They must be able to demonstrate their understanding of the issues in learning aim A and learning aim B using appropriate language and specialist terminology. They must also be able to analyse issues and then provide comprehensive evidence of their understanding of these issues. The profiles that they produce must be appropriate or sophisticated in order to achieve the higher grades. Your learners will need to be provided with the necessary tools to ensure that their profiles can be produced to the highest possible standard. Similarly, your learners must have access to networking opportunities in order to use relevant or comprehensive networking techniques.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 2: Working in the Creative Media Industry

Introduction

Begin by introducing the key concepts of the unit: that is, an understanding of the media industry, and the range of career opportunities available. You should then begin to unpick the range of job roles both across the entire media industry and then in a particular sector. It is important that learners have a clear idea of a sector in which they would like to work, as this will encourage them to produce suitable assessment materials for learning aim B. Once your learners have a clear understanding of the job roles and career potential in a chosen sector, they must be engaged with the production of their own profile material, for example a CV and portfolio for learning aim C. This will showcase their talents as media practitioners and will be invaluable when applying for jobs or progression to higher education.

Learning aim A – Understand employment and career opportunities in the media industry

You should begin by introducing your learners to the context of this learning aim. This will include an overview of the content as well as how they will be assessed. You should provide your learners with the context of employment and career opportunities in the media industry. This should be reinforced by case studies and visits from media professionals.

- It is essential that your learners understand the range of roles in the media industry. They may well be aware of production-based roles such as a producer or director, but have little knowledge of technical, managerial or administration roles.
- It would be good practice for your learners to investigate the range of roles by reviewing film and television credits, websites such as www.creativeskillset.org.uk and trade publications.
- Ask learners to produce a report or presentation on the range of job roles in one sector and present this to the rest of the group, ensuring that everyone has a copy of these investigations. In this way, all your learners will engage with the whole range of job roles in the media industry. It is essential that each learner is able to provide evidence of their own investigations and conclusions on job roles.
- Once your learners have a clear picture of the job roles across the media industry they must engage in activities in which they investigate the recruitment process..
  - You must provide learners with current information on the recruitment process, but you should also give them the resources to investigate the range of recruitment processes for the media industry for themselves.
  - Ask learners to produce an illustrated report in an appropriate manner on the recruitment process.
- Your learners must understand contracts of employment in the media industry.
  - Provide them with the resources to investigate the range of contracts available to media professionals.
  - Ask learners to investigate contracts by reviewing websites such as www.creativeskillset.org or www.BECTU.org. They should consider approaching media organisations to gather information about the range of contracts that they offer to their employees.
- Your learners need to demonstrate their understanding of how they will find employment opportunities in the media industry. They should investigate how they

would find employment opportunities using a wide range of resources, such as show reels, portfolios, websites and social media.

- It is essential that your learners understand how to present themselves at interview. These are skills that will be useful when applying for any job or applying to higher education.
  - o If appropriate, provide mock interview situations for your learners after they have been able to practise their skills.
  - o It is also useful to record their interviews so that they can improve their interview techniques.
- Your learners must develop an understanding of the ways in which they can increase their job opportunities. They should investigate how they can update their skills on a regular basis, and how they might engage in work experience.
  - o Provide your learners with an opportunity to engage in valid work experience or work-shadowing activities.
  - o Engage your learners with media professionals who can provide them with insights into professional practice, as well as tips on how to gain new skills.
- Your learners must be aware of the standards behaviour required of media professionals. Encourage them to work professionally at all times. This can be embedded into the production-based units in this qualification.
- Learners should consider the ways in which their research will inform their own choice of media in the next learning aim.

Learning aim B – Understand the structure and job roles in a media sector

For this learning aim, learners need to identify the structure and job roles in one media sector. Each learner should choose a media sector that they would consider working in and use this sector as the basis for their work. Your learners should review their work in learning aim A on the range of media types and choose an appropriate media sector. Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of the media industry that they carried out in the first learning aim in order to inform their choice of media sector to investigate. As such, you should take a holistic approach to the delivery of these learning aims.

- Your learners should investigate a chosen media sector and report on its structure.
- Learners should investigate the career opportunities in their chosen media sectors in terms of:
  - o the nature and size of the industry sector
  - o the ownership of this sector
    the regulation and finance
  - o the organisational structures.
- Ensure that learners have access to resources that allow them to investigate a chosen sector. Make available a range of case studies for them to review.
- Your learners must be able to demonstrate their understanding of the ethical and legal issues for employees in their chosen media sector. In order to do this, they will need access to resources on ethical and legal issues.

Learning aim C – Produce profiles to gain employment in the media industry

This learning aim requires learners to produce their own profile that will allow them to gain employment in the media industry. They need to look at case studies and examples of professional profiles in order to develop their own profiles. They will also need access to resources for producing their own profiles.

- Learners need to produce a CV in an appropriate manner. This may be hard copy (paper based) or web based. The CV should be structured to provide contact details, employment history, work skills and personal skills. They must be able to present their CV in an appropriate manner using the skills that they have developed in media production. There could be an opportunity for them to add audio/visual materials to their CV, or use skills that they have developed in web design. Make sure that learners have access to examples of professional CVs.

- It is essential that your learners produce a portfolio of their work, including on-going experimental work or trial layouts, as well as finished work. This can be presented in hard copy and/or online.
  - o Give learners opportunities to develop electronic portfolios that can be sent to potential employers, clients or higher education establishments.
  - o Learners must to consider how they will present their portfolios, and how they will be used. Give them examples of different types of portfolio to review.

- It is vital that your learners understand the networking opportunities that exist in their chosen media sector. They need to consider how they will undertake networking opportunities for gaining employment, for example .by word of mouth, by attending conferences, by giving out business cards or leaflets and by means of advertising campaigns. Once again, it is vital for your learners to have access to a range of examples.

Learning aim D – Use networking techniques to explore employment opportunities in the media industry

Your learners should now understand the need for networking in the media industry. They must now use networking techniques to explore employment opportunities. This will involve them making contacts and using social media. Ensure that learners have access to a range of networking resources and that they can use these techniques in an appropriate way.

- Show your learners how to use networking techniques to make contacts for employment in the media industry.

- Ask them to produce contact lists using thorough research.

- Check that they understand the range of techniques that are used to make contacts. For example:
  - o attending business development meetings and exhibitions
  - o talking to potential employers
  - o creating their own blog
  - o using email or telephone
  - o using the correct questions when meeting people.

- Learners must understand how to use social media to explore employment opportunities.

- Encourage them to investigate and use a range of social media techniques (such as producing their own website, Facebook page, Twitter feed and Linkedin profile) in order to network with potential employers and clients.

- Learners must be able to demonstrate that they are able to maintain their social media contacts, remove unwanted contacts, grade contacts for quality and can confirm the authenticity of contacts. It is essential that your learners are able to decide which contacts are appropriate and which are not. They must ensure that any contacts that are not appropriate or are no longer relevant are removed from their contacts list.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 6 Media Campaign*
- *Unit 7 Media Enterprise*
- *Unit 19 Scriptwriting*
- *Unit 22 Interviewing Techniques*

This unit also links to any units related to the production of audio/visual or web elements.

Resources

Websites

- http://icould.com/article/getting-a-job-in-the-media-industry/
  This has career guidance and articles on working in the media industry.

- http://creativeskillset.org/
  This has careers advise from the Industry Skills Body for creative skills.

Unit 3: Digital Media Skills

Delivery guidance

Approaching the unit

This unit provides your learners with an opportunity to put into practice the skills that they have developed in media production. They will have developed a range of skills in different media practices and now they can choose a medium to demonstrate their ability to produce assets, edit/manipulate assets and produce a final media product. It is essential that your learners choose an appropriate medium in which to work. They need to carefully consider their work on production units and which have been successful or which have provided them with the best opportunity to achieve at the highest level. Equally, you need to consider the resource requirements for this unit: will you have sufficient resources to allow your learners to choose any medium in which to work?

Your learners will be provided with a vocational brief and they must interpret this brief in order to produce assets to make their media product.

It is essential that your learners are able to undertake the assessment of this unit in the timescale set by Pearson. Learners will be provided with their examination paper on an agreed date and they will have a preparatory period to undertake the creation or sourcing of assets that they will then edit/manipulate to produce a media product.

Initial teaching and learning should be centred around the learners developing skills in reading and deconstructing a brief and then producing appropriate ideas to fulfil the brief. The brief will change every year as will some of the essential elements that your learners will need to include in their finished media product.

Assessment guidance

Your learners must have the understanding and skills to produce their assets, to manipulate them and to edit them. This can only come from practical activities in production-based units. It is important, therefore, to look at ways of incorporating or linking to other units that teach specific techniques, for example *Unit 16: Factual Programming*. The assessment of this externally examined unit requires your learners to produce a range of background material that supports their production, manipulation and editing of assets in producing a media product. They will need access to a wide range of resources and support in the production of assets as well as the resources to produce a final product under controlled conditions.

Your learners should choose their media product by taking into account their previous work on production-based units and the skills that they have developed. They should also consider the resources available to them and take into account the time required to prepare assets and edit them.

Your learners must ensure that they keep careful records of their asset preparation in order to produce a digital, annotated index of created and sourced materials. They must also produce a digital, annotated e-portfolio of prepared, edited and/or manipulated materials from the index.

All of this requires your learners to record and manage their assets in an appropriate manner. It is essential that they are able to produce this evidence for assessment.

Once your learners have prepared their assets, they must produce a completed media product corresponding to a chosen brief. Each learner must also provide a fully completed authentication sheet.

It is essential that your learners have access to appropriate resources to prepare their assets and to produce their final media product.

Your learners **must** be supervised appropriately during these activities. You must ensure that**:**

- supervised environments must only be accessible to the individual learner and to named members of staff

- the learners' work is backed up

- any work that learners produce during the supervised assessment period is kept secure

- any materials being used by learners must be saved and stored securely at the end of each session and made accessible at the beginning of the next session. Learners are permitted to have access to their created, sourced and prepared materials during the supervised conditions.

You must ensure that your learners can provide the following Outcomes for Submission.

Outcomes for Submission

The following materials will need to be submitted by each learner.

1 A digital, annotated index of created and sourced materials.

2 A digital, annotated e-portfolio of prepared, edited and/or manipulated materials from the index.

3 A completed media product corresponding to a chosen brief.

4 A fully completed authentication sheet.

Also note that all digital outcomes for individual briefs should be saved in file types specified by Pearson in the Set Task Brief. The method of submission will be specified for each session by Pearson**.**

Getting started

This gives you a starting place for one way of delivering the unit.
Activities are provided in preparation for the external assessment.

Unit 3: Digital Media Skills

Introduction

Your learners will demonstrate, through constructing a digital media product, the skills that they have developed in media production. Learners must cover all the specified content before undertaking the assessment. Learners should start by understanding the brief being used for the assessment. This will be provided by Pearson and should be given to your learners 12 weeks prior to the submission date. You will not be able to give your learners any support during their research and preparation work. Your learners will need to use their prepared assets to create/build a media product. This media product must meet the brief provided for the examination series.

Topic A – Source and create assets

Your learners must follow the brief provided for the relevant examination series. They will be marked on the quality of their work for this brief.

- Your learners must be able to read and understand the brief. It would be prudent to provide with sample briefs and assist learners to deconstruct them.
  - Learners need to understand the purpose of the brief, the client's requirements, the length of the finished product and the time constraints.
  - They must be able to deconstruct the brief in order to identify an appropriate format for their digital media product. It would be good practice to provide learners with mind-mapping documents to help them to choose the format for their digital media products by considering the skills that they have developed in production units.
  - It is essential for your learners to identify their target audience in terms of age and demographics. They need to understand how their digital media product will meet the needs of the audience.
  - Provide your learners with a range of documentation to facilitate ideas generation. It would be useful for the learners to work in groups where they could discuss ideas in a supportive environment.
- Your learners need to identify the assets required to produce a digital media product that meets the brief.
  - They need to identify how they will create assets and how and where they can be sourced.
  - For each asset, learners should consider copyright, permission and royalties.
  - It will be useful for learners to record all of their work in a log or blog as they will need to produce a digital, annotated index of created and sourced materials. Provide your learners with the tools to create and store these indexes. The quality of their indexes will determine the learners' marks in the assessment so they need to be as inventive as possible when creating them to achieve at the highest level.
- Each learner will determine the medium they will use for their digital media product and produce assets to use in this product. Once your learners have identified the assets that they require, they must move on to creating them.
- It is essential that your learners understand all the unit content requirements for creating assets as each examination series has different requirements. For example:
  - The learners may be required to use a particular camera movement, lighting set-up, music, editing technique or sound effects.

The following example is taken from the sample assessment materials.

You will need to include in your video advertisement:

- o *own camerawork to include tracking and panning techniques*
- o *a minimum of two scenes containing three camera 'set-ups' per scene*
- o *background music*
- o *continuity editing techniques: shot reverse shot, 180 degree rule, one transition other than a cut*
- o *sound effects.*

The requirements for the elements in the example above will vary for each examination series. The requirements for each of the five different media will also vary for each examination series. Your learners will need to ensure that they have read the requirements of the examination paper when planning for the production of assets.

Each of your learners will need to produce an index of sources of their assets that identifies their location, the appropriateness of the materials for the intended product and where in the product the assets will be used. This will be a digital index and your learners will need to choose an appropriate format for this digital index. This could take the form of an e-folder with links or a blog with links/embedded assets. This activity will generate marks as shown in the following sample assessment activity.

Activity 1

Create an annotated and fully referenced index of all created and sourced materials you intend to use in your product.

(Total for Activity 1 = 20 MARKS)

- It is essential that your learners are able to store assets securely and in a manner that makes then easily accessible. Your learners should be able to prepare a folder in which to store their evidence and in which to create their index. The index could take the form of a series of folders each carefully named. This will allow your learners to reference fully each of the assets that they have created and sourced for use in their products.
- Initial teaching and learning should focus on the ways in which your learners can create their own annotated and fully referenced index.

Topic B – Preparing, editing and/or manipulating assets

Your learners must be able to demonstrate skills in preparing, editing and/or manipulating assets. They must be able to create e-portfolios of evidence:

- o to demonstrate how original indexed material has been edited,
- o to make a comparison between original and fully prepared material (before and after)
- o to show the process of preparing, editing and/or manipulating their assets.
- The following activity shows the marks that will be awarded for learners' e-portfolios.

Activity 2

Create an annotated, digital, e-portfolio of your preparation, editing and/or manipulation processes.

(Total for Activity 2 = 20 MARKS)

- It is essential that you provide your learners with the tools to produce their own e-portfolios and allow them time to add to these on an on-going basis. It would not be good practice to leave the production of the e-portfolio to the end of the unit as your learners may lose evidence or forget what they did and how they did it.

- Your learners must be able to use a range of editing and/or manipulation techniques to ensure that their assets are in the correct format, of a suitable size and length and are fit for purpose. The editing and/or manipulation process will vary according to the medium each that learner has chosen for their digital media product. Therefore, your learners must cover the unit content relevant to their medium.

- Your learners must produce evidence of how the asset has changed in the editing and/or manipulation process and explain how this has affected the asset. This evidence will be stored in their e-portfolios and your learners must choose an appropriate approach to the production of their own e-portfolios. They must consider the e-portfolio format in terms of a contents page, folders that are labelled and organised, files, accessibility and how it will be stored. As identified earlier, marks are awarded for these e-portfolios. Therefore it is essential that your learners produce effective e-portfolios.

It is important that you provide your learners with the skills to create annotated, digital e-portfolios. This should be built into your initial teaching and learning in this unit. Once the assessment period has started, you will not be able to teach your learners, as they must work independently on the creation of their e-portfolios.

Topic C – Create/build a media product

Once your learners have created their assets it is time for them to create/build their digital media product. Remind them that their digital media product must meet the brief in terms of length, standards, fitness for purpose, and aesthetic qualities. Your learners will gain marks for this learning topic as follows.

Activity 3

Construct/ build a completed media product that meets the requirements of your chosen brief.

(Total for Activity 3 = 30 MARKS)

- Learners must use their digital skills to create/ build their chosen digital media product. They must demonstrate independent use of software and hardware, have an organised system to build/construct it, have an understanding of technical requirements, be creative in meeting the brief and communicate a message through technical skills.

- They must produce a functioning digital media product that meets the brief and this product must be accessible.

- Your learners will be working to the examination paper provided on a given date. Once they start their work on the examination assessment, they must work independently in order to plan, create assets, edit/manipulate assets and create/build a media product.

- It is essential that your initial teaching and learning focuses on the skills that your learners have developed in their production unit work in this qualification. This externally examined unit should focus your learners' skills in a particular media sector. They should use the skills developed in production units to decide on the media product that they intend to produce.

- It is essential that your learners understand the nature of the materials they need to produce in order to meet the requirements for assessment. Initial teaching and learning should include showing learners examples of good practice. It would be beneficial to provide your learners with examples of past papers and good examples of media products alongside appropriate indexes and e-portfolios, to help prepare them for the assessment.

- Your learners must understand the nature of the requirements for assessment as indicated in the examination paper.

The Outcomes for Submission states that each learner will need to submit the following materials:

1 a digital, annotated index of created and sourced materials

2 a digital, annotated e-portfolio of prepared, edited and/or manipulated materials from the index

3 a completed media product corresponding to a chosen brief

4 a fully completed authentication sheet completed by each learner.

All digital outcomes for individual briefs should be saved in file types specified by Pearson in the assessment brief.

It is essential for your learners to provide all the required evidence and for their digital outcomes to be saved in a specified file type. Once again, you will not be able to advise your learners during these controlled conditions. Learners must have the skills to create/build a media product independently and save it in the correct type of file.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit builds on the understanding, knowledge and skills developed in production based units across the qualification.

Resources

Textbooks

- Holmes T – *Subediting and Production for Journalists: Print, Digital & Social (Media Skills)* (Routledge, 2015) ISBN 970415492010
  This gives a clear introduction to the skills required in media editing roles.

Journals

- http://www.henrystewartpublications.com/jdmm– *Journal of Digital Media Management*
  This is a professional journal for those who work in storage and application of digital assets. It provides useful insight for learners.

Websites

- Digmedia.org – Digital Media Association
  This is a key organisation for the digital media industry. It is a good point of reference for learners looking to get real-live reference points and up to date trends and news.

Unit 4: Pre-production Portfolio

Delivery guidance

Approaching the unit

This unit is a mandatory unit which is internally assessed. As such, the unit seeks to assess the knowledge and understanding of the essential pre-production stage of media production underpinning all other optional units in the qualification. It is recommended that you approach the unit as a way to introduce learners to the documents, templates, procedures and processes common to pre-production across all media sectors. Although learners will only be required to produce pre-production documents specific to their chosen sector, they should understand that pre-production is an essential part of media production across all media sectors. As with all the units in this qualification, this unit is designed to enable learners to 'link' their learning in one area to their understanding in another. As such, you should approach the teaching of the unit with this in mind, encouraging learners to draw upon the knowledge acquired within it when developing their digital media productions in other units.

This unit deals with the tasks and procedures that ensure the successful planning of a media production and, in your teaching, you should ensure that you communicate to learners that what they learn in this unit will be applied in another, e.g. pre-production documentation is common across film, TV, radio, web design, games design and publishing. In this respect, the learners should be able to understand and apply their learning to whichever sector they are working in. The unit can be taught in total at the beginning of the course or may be 'dipped into' throughout the year as and when the specific pre-production topics arise in conjunction with the optional specialist units.

You have flexibility regarding how you deliver and assess your learners' programmes of study. You are encouraged to adopt a holistic approach, whereby you link teaching and learning to the production units and make full use of any assets that learners are producing and skills they are acquiring in these units.

Delivering the learning aims

For learning aim A, your learners will need to know what the requirements are for the pre-production of a digital media product. Straight away, you should make explicit the links between the production tasks that learners will be undertaking for other units, and the pre-production content here. Learners may be put off by pre-production tasks, as they may initially view them as the boring, form filling part that you have to do! Help them to see the purpose and benefit of learning about pre-production by demonstrating how it will help them to produce a better end product. As a starting point, assess your learners' existing knowledge of what is meant by 'pre-production'. Present learners with a range of finished media products and discuss how these products were produced. Ask them questions by working backwards from the end product. That way, learners will be able to now see/touch/hear the tasks that had to be performed **prior** to the production. This can be used as a means of getting them to think about pre-production as a distinct part of the whole process.

From here, the A1 content can be introduced. It is essential that key terms like 'logistics', 'personnel', 'finances', 'facilities' etc. are understood and this could be done through quizzes or activities that require learners to annotate or label a finished media product with all the pre-production requirements and categorise them under the correct headings. There are a range of creative and visually

appealing apps (e.g. Thinglink, Popplet) and computer programmes (e.g. Prezi) that could be used for such activities. Ideally, a guest speaker from a media company should visit to discuss and show the pre-production process for producing their media product(s), or you could visit a local media company to see real examples of pre-production work. Initiating work experience at a local media company would also be an ideal opportunity to learn about the pre-production process. Provide a comprehensive, modelled example of all the requirements of pre-production for a media product for your learners. This could take the form of a case study example, or a visually presented infographic. Once learners are confident with the terminology and know what the requirements of pre-production are, they can then start to make links across all sectors: the focus here is on understanding that pre-production requirements are common to all sectors/products and it is therefore recommended that learners are steered away from concentrating on just one sector at this stage. To understand the requirements of pre-production, ask learners to create interactive presentations (using apps or computers) to identify and discuss the pre-production requirements for a range of different media products. This could be done individually or as a whole class activity, with conclusions drawn and the pre-production requirements formally identified as a concluding activity.

The content for topics A.2, A.3 and A.4 can be delivered together to emphasise their natural correlation. Using the previous learning about pre-production requirements to build on, you can now look at specific pre-production templates, documents etc. to deliver the content relating to their format, function and purpose. You will need to have a bank of resources available to show your learners real examples of pre-production documents such as storyboards, page mock-ups, equipment booking forms etc. Where possible, use real working documents. Display these prominently as a reference point and create a 'Format, Function, Purpose' display to clearly define these aspects of the pre-production documents and processes. The cause and effect of good and bad pre-production planning needs to be taught. Flow charts and other visual stimuli can be a useful way to illustrate the knock-on effect of poor pre-production on the whole process. Help learners to understand the impact of good and bad pre-production by allowing them to talk to real media practitioners about the process. Inviting past media students in to talk to your learners about their own pre-production work is a valuable way to help them understand its significance, and to learn from any mistakes they made!

For learning aim B, you could start by guiding your learners through the pre-production procedures they would need to follow for a real media production. An effective way of doing this would be through modelling and illustrating the actual process of following the pre-production procedures for a media product, e.g. for the creation of a web-based advertisement. Again, it is key that you are helping your learners to see the direct links between what they are learning to do in this unit, and the production of their own media products in other units (e.g. completing a health and safety form for their video shoot or planning the logistics of an outdoor audio recording). Many learners will be unfamiliar with the documents and inexperienced at filling in the necessary forms and following procedures, so the focus here should be on explicitly showing them *how* to carry out the procedures listed in B1 and the importance of doing so thoroughly. You should prepare them for independently carrying out their own pre-production tasks and following procedures by first showing them in detail how to perform such tasks. So, you will need to demonstrate such things as how to prepare a budget, how to draw a storyboard, how to fill in a health and safety form etc. Make sure that these examples relate specifically to the types of products and productions that the learners will be working on in their other units. Arranging for real media producers to attend lessons to show the learners how to do this part of pre-production would help them to see its purpose and benefit. Provide opportunities for learners to discuss with media professionals how their own pre-

production will help them with production work. Past students are often a good source for tips and advice at this stage, to help your current learners learn from their experiences at pre-production. Make use of YouTube videos to illustrate how to perform some of the creative pre-production tasks. You could then create a flow chart or interactive presentation with hyperlinks of your modelled example of following the pre-production procedures. Some learners may be turned off by this 'administrative' aspect of pre-production work so stress to them that these are valued employability skills and highly transferrable. Use your modelled example as a reference template for the learners to use to when they then move on to work independently on their own pre-production preparations. Allow learners to also experiment with the more creative aspects of pre-production, such as storyboarding for their own video shoot sequence or page layouts for an online magazine feature. Set up 'hands-on' pre-production creativity workshops to demonstrate how to perform these tasks and to allow learners to experiment, discuss and review their ideas. Set tasks whereby learners work in small groups to create their own flow charts or infographics of the pre-production procedures for each of the media sectors covered in B2. Display these in the class or on shared online learning platforms to enable learners to reference them when they move on to work independently.

For learning aim C, learners should understand how to set up and maintain a pre-production portfolio for use on their own media production. Their pre-production portfolio can be linked to their optional production units, so ensure that they make these links and see the value of the preparation work they are doing in this unit. The pre-production portfolio will be an interactive document that will be amended and developed over the course of the pre-production, so ensure that your learners understand this and do not view it as something that can be created and finished in one go. It will be an ongoing process, changing and being amended as the production develops. There are many free blog sites to choose from, but it is worth selecting one which allows for easy connectivity to other social media sites such as Twitter and Facebook. This would enable learners to make links between their pre-production portfolio and content from other production units in the qualification. Google's Blogger would be a good platform to use for this unit as it also links with Google+ and Google Drive.

 Your role is to help your learners set up the electronic portfolio and to show them how to perform the necessary tasks such as uploading/downloading documents, file sharing, deleting/amending documents etc. Again, as with the delivery across this unit, it is essential that you make explicit the links between what they are creating here and their other units. Their electronic portfolio will be a working document that will be used by them when they produce their media product in another unit. It may be useful to set up a class 'demonstration blog' as a tool for demonstrating to your learners how to set up and maintain an electronic portfolio. You could use this to demonstrate to the class specific tasks such as inserting hyperlinks, uploading and downloading and how to lay out the blog so that it is easy to navigate. Make use of tools such as Dropbox or Google Drive to show how to file share. Once learners have been shown how to perform tasks, e.g. creating hyperlinks, you could develop their skills by setting additional tasks to perform on the class 'demonstration blog'. Again, this is an opportunity for you to deliver valued employability skills to your learners, and this aspect of the unit should be emphasised to your learners to help them value the skills they are developing here. The electronic portfolio will need to be accessible online externally as well as internally from your learning environment. For documents or items that cannot be stored electronically, it may be necessary to provide learners with a secure storage area and a means of filing documents. For this unit to be of benefit to learners, there should be a clear link between the work they will be doing here and the practical work that they will be undertaking in other units. Therefore, assets will need to be saved and reused.

For learning aim D, in preparation for your learners evaluating their own pre-production, you could model to them how to write an evaluation, ensuring that you address all the content listed in D1 and D2. Flow charts or annotated visuals are a good way to start this process, with all the aspects of the pre-production addressed. This could then be developed into a more structured, analytical evaluation to model for your learners. You should re-cap all the associated terms, e.g. 'logistics' and 'resource management' to ensure that learners are correctly identifying and addressing each aspect of their own pre-production. In preparation for their final evaluation you could provide learners with guided questions to help them focus their review: e.g. 'What logistical problems did you encounter and how successfully did you resolve these?' 'How did your pre-production resource planning help with specific production tasks?' As the success of the pre-production planning can really only be determined by the quality of the actual production that each learner has created, you should ask learners to review how useful the pre-production planning was by considering the success of a production unit that they are undertaking. You should think holistically when delivering and assessing this unit.

To avoid the review becoming a list of what they did well/badly, you could provide learners with a writing framework that guides them on how to make explicit links between what they did/did not do and the *impact* of their actions on the pre-production: e.g. 'Did you forget any props or equipment on the shoot and what impact did this have?' Again, visual tools are useful to help learners see the impact of their decisions. They could draw cartoons, create flow charts or infographics to plot the trajectory of their own pre-production. These can then be used to help the learners create their reviews.

Learning aim	Key content areas	Recommended assessment approach
A Understand the requirements of pre-production of a digital media product	**A1** Requirements for a specific media production **A2** The formats for pre-production processes **A3** The functions of pre-production processes **A4** The purposes of pre-production documentation	A report on the format, function and purpose of the processes and documentation essential for pre-production.
B Carry out pre-production for a digital media product	**B1** Procedures to follow **B2** Pre-production tasks relevant for a chosen sector	Complete pre-production tasks with appropriate annotations to indicate the tasks undertaken by the learner.
C Produce a pre-production portfolio for a creative media production	**C1** Formats for documenting pre-production **C2** Contents of pre-production portfolio **C3** Maintaining a pre-production portfolio	Presentation of a pre-production portfolio containing relevant documentation and annotations.
D Review pre-production of a digital media product	**D1** Elements of pre-production **D2** Project management	A written/audio/video summary to document how pre-production was managed.

Assessment guidance

This unit is assessed internally. The pre-production portfolio will need to be electronic to enable files to be uploaded/downloaded and shared. This could take the format of a blog, or any other suitable electronic format that is accessible internally and externally from the centre. Where evidence of pre-production planning cannot be stored electronically, hard copies should be filed and stored securely for assessment. Photographic evidence of artefacts/models etc. relating to the learners' pre-production can be photographed and uploaded to their pre-production portfolio. For learning aims A and D, learners may submit their evidence in written, audio or video formats, ensuring that all appropriate learning aim content is addressed. Learners may make use of any appropriate audio/visual aids or recording tools e.g. apps or computer software to record evidence for assessment.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 4: Pre-production portfolio

Introduction

Pre-production forms an essential part of all media productions. The pre-production work that the learners will produce for this unit has direct links with the production tasks they will be undertaking in other practical units. The pre-production portfolio will be a working document that learners will need to access and use in a production unit. The aim of this unit of work is to teach learners the essential knowledge and skills to enable them to undertake their own pre-production tasks. Learners will need to understand the purpose and format of pre-production documentation and will use this knowledge to create a working pre-production portfolio to inform their own media production. The unit ends with the learners evaluating their pre-production work and assessing its impact on their production.

Learning aim A – Understand the requirements of pre-production of a digital media product

Learning for this part of the unit must focus on knowledge and understanding of the requirements of pre-production planning.

- You could introduce the delivery of the learning aim with a class discussion of what is meant by pre-production planning. How is it different to the production and post-production stages of a media project? Have a range of media products in the classroom (either physically or images) and question learners about how they think that product was made. Then narrow that questioning to focus specifically on the pre-production stage. Pose questions that get the learners thinking about the logistics, drafting, personnel, planning etc. that went into this pre-production stage. From here, you could then introduce the correct terminology associated with pre-production planning and categorise all the points under the following headings:
  - o logistics
  - o finance
  - o adherence to codes of practice and regulations.

- Set further class tasks to consolidate learners understanding of the pre-production requirements. In small groups, ask learners to find more examples of media products and think about, research and annotate the associated pre-production planning.

- Create class displays of pre-production planning requirements for a range of media products. Invite a representative from a local media company to talk to your class about pre-production and ask learners to write up any notes they make during this.

- Prepare your learners for any talks by ensuring that they asked focused questions relating specifically to the purpose, function and format of the pre-production documentation that they will be shown by the speaker(s). Alternatively, if it is not possible to find a local representative to come in, try to find a media company who would be willing to take part in a Skype call with your learners to discuss and show their pre-production work. Ask your previous year's learners to come in and show their own pre-production portfolios to your current learners and to discuss the importance of this stage. Such talks and demonstrations would provide opportunities to deliver content relating to all of this learning aim, and you could then make explicit links to the formats and purpose of pre-production documentation. This form of delivery is often invaluable in helping learners to appreciate the relevance of the 'paperwork' side of pre-production. If they can hear first-hand from real media practitioners that this documentation is essential, they are more likely to value the acquisition of pre-production skills.

Learning aim B – Carry out pre-production for a digital media product

By the end of this learning aim, learners should know what procedures to following for the pre-production of a media product. They should also know the pre-production requirements relevant to a specific media sector.

- The following of procedures during the pre-production stage is essential and has a direct impact on how the production will develop. Learners need to understand that a methodical, structured approach has to be followed. This is usually a difficult concept for learners to appreciate as they are often eager to just get going with a project and often express frustration with the need to follow procedures that they perceive to be unimportant. Refer them back to knowledge acquired from learning aim A and the information they gathered from real media practitioners to help them value the importance of the following of procedures.

- Set class tasks of creating visual representations of the procedures to follow during pre-production.

- Ask learners to research the templates, formats, industry requirements/expectations for pre-production planning associated with their chosen sector. Create visual displays of these and model to learners how to complete them.

- Provide learners with opportunities to practise completing pre-production documentation and tasks by setting activities that require them to correctly fill in the associated forms, templates etc.

Learning aim C – Produce a pre-production portfolio for a creative media production

Learners will need to produce a pre-production portfolio. They will need to know how to set this up and how to amend its content to reflect the pre-production in progress. This planning should be for a production in another unit that each learner is undertaking.

- The key to a successful pre-production portfolio is organisation. Help your learners to be systematic in their approach by frequently referencing the previously learnt procedures, and checking that they are following them!

- Set up a class demonstration blog and use this to show learners how to perform the technical tasks associated with maintaining an electronic pre-production portfolio. You could then use this class demonstration blog to allow learners to practise the tasks for themselves. You could set the following tasks for your learners, linked to the class demonstration blog.
  - o Create a template contact sheet to record all the names and contact details for those working on the production. Save this document to Dropbox or Google Drive and then insert a link to it on the class blog.
  - o Storyboard a proposed scene for a TV commercial following industry formats. Decide on an appropriate place on the blog to store the storyboards. Upload your storyboard and label it appropriately on the blog for others to locate. Then locate and download another class member's storyboard from the class blog.
  - o Create and insert a hyperlink to a prop house website.
  - o Identify the potential risks of filming in a location. Fill in a health & safety form to record these. Scan this form and send it as an email attachment to all those working on the production.

Learning aim D – Review pre-production of a digital media product

- Learners need to know how to evaluate the effectiveness of their project management, by referring to its impact on an actual production.

- You could prepare learners for evaluating their own pre-production by first setting them class tasks requiring them identify poor pre-production planning in a case study scenario you create for them. Ask them to identify the specific aspects of logistical and financial planning that led to the problems. Hold class discussions in

which you go through the case study and discuss what went wrong and why. Brainstorm these sessions and task the learners to create mind-maps to illustrate this. Ask them to consider if the correct procedures were followed and then to create an improvement plan for future pre-production work.

- Model to your learners how to write a comprehensive evaluation and give them opportunities to practise writing or recording their own.
- Set class activities in which learners create flow charts/infographics or other visual representations of the procedures that should have been followed in the case study scenario.
- Learners need to look at the success of their actual productions and consider what could be improved and, in particular, relate that to their pre-production work.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 8: Responding to a Commission*
- *Unit 9: App Production*
- *Unit 10: Film Production (Fiction)*
- *Unit 11: Radio Production (Fiction)*
- *Unit 12: Website Production*
- *Unit 13: Digital Games Production*
- *Unit 14: Digital Magazine Production*
- *Unit 15: Advertising Production*
- *Unit 16: Factual Production*
- *Unit 17: News Production*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Cohen DS and Bustamante S – *Producing Games: From Business and Budgets to Creativity and Design*, *First Edition* (Focal Press, 2009) ISBN 0240810708
  This is a useful book to guide learners through the essential pre-production associated with digital game production. This book could also be used for other digital game production units.

Rea P and Irving DK – *Producing and Directing the Short Film and Video*, *Fifth Edition* (Focal Press, 2015) ISBN 0415732557
This book provides a comprehensive breakdown of the pre-production processes for producing short film and video. The content will also be relevant for other moving image productions and, as it covers all the stages of production, it would also be relevant for other units within this qualification.**Videos**

- https://www.youtube.com/watch?v=tu9DdunqMYM
  A filmed tutorial on pre-production procedures for film by The Quinnipiac Film Society. It provides excellent tips and the style of delivery is informal.

- https://www.youtube.com/watch?v=ux_Em1lVsjI
  A tutorial for how to create a storyboard, even if you are bad at drawing!

- https://www.youtube.com/watch?v=tuP3aBmSdU8
  This provides a useful breakdown of the pre-production planning for a low-budget production. It is useful for showing pre-production planning for the types of productions that learners, at this level, will realistically be creating.

Websites

- http://www.4rfv.co.uk/
  This is a broadcast, film, television and production directory and news service. It is a useful site for understanding the logistics and hire costs associated with pre-production planning.

- http://www.bbc.co.uk/filmnetwork/filmmaking/guide/production/budget-and-schedule
  This is a BBC website that provides a breakdown of pre-production for film making. It also provides useful links to other relevant content for this unit.

- https://lukejames7.wordpress.com/who-is-luke-james/
  This is a blog by a BTEC media student that records and presents his work. It would provide a useful exemplar to show learners how to present their pre-production portfolios.

- http://singlegrain.com/video-marketing/20-pre-production-steps-to-video-content/
  Single Grain is a digital marketing agency. This blog section of their website provides a useful guide to pre-production steps for successful video content. There is plenty of other relevant content on their website too.

- https://wordPress.com/
  WordPress is a free and easy-to-use website for learners to create their own blogs or websites for their pre-production portfolios.

- https://www.youtube.com/
  This is a valuable source of content for learners to research and watch 'how to' tutorials relating to pre-production from all media sectors.

Unit 5: Specialist Subject Investigation

Delivery guidance

Approaching the unit

This is an externally assessed unit that is designed to provide learners with an insight into a range of contemporary issues and debates affecting their specialist subject area. The creative media sector is constantly changing and evolving; changes affect the ways in which media products are produced and consumed, often through a range of technological advancements. Learners will need to gain an understanding of how these changes affect current media issues and debates around genre, audience and technology.

Learners will be required to engage in extended research into contemporary theories and debates and explore their impact. Learners should be using a range of primary and secondary research methods and techniques which will allow them to gather appropriate and targeted information with which to contextualise their findings. All investigations should be relevant to the chosen media sector in which the learner is working. This unit should therefore be linked with each learner's specialist subject area.

There is a range of essential skills that learners must be able to utilise throughout the course of their research, such as collection and collation of valid and reliable data. Learners will be required to clearly and thoughtfully interpret this data in order to produce a desired outcome. Learners should be taught how to utilise and apply these methods and techniques over the course of their studies and should be allowed opportunities to engage in data production and analysis before they undertake any external assessment activities.

Delivering the topics

The areas on which research should be focused will always be technology, audience and genre; the exact focus of the externally-assessed topic will be released by Pearson on an annual basis. However, learners must be able to engage in a varied range of research methods and techniques and should be taught how to gather and interpret research data.

Topic A outlines the topics that learners will be required to study and indicates the research foci. These foci cover a range of issues and debates that have affected the topics in question and will allow learners to target their research activities accordingly.

It will be necessary for learners to cover all aspects outlined within the research focus as these will be covered by the external assessment and any aspect of these could be touched upon within the stimulus materials and question paper.

Learners should be taught about and allowed to engage with a range of research methods and techniques, such as primary, secondary, quantitative and qualitative. They should understand the range of techniques available to them and the differences between them (i.e. their strengths and weaknesses and how and when these methods and techniques can be effectively and reliably applied).

For topic B, prior to applying research methodologies, you should teach learners how to plan their research effectively by thinking about what it is they want to achieve as a result. Learners should understand how to produce questions for their research subjects that will provide them with the information they need. They should understand and be able to pose questions and record responses in such a way as to allow for effective analysis. Similarly, they should be able to select their samples appropriately with consideration of size, reliability and the need for fairness and balanced judgements within their findings.

You should also place emphasis on the importance of sifting and collating research data to ensure that all evidence provided is relevant and useful. It is important for learners to know that not all the information they collect will be appropriate to their proposed outcomes and that they will need to sort and utilise it accordingly. When presenting their findings, learners should be able to clearly and adequately reference all their sources and research trails. Any sources that learners quote from or cite should be given by means of a relevant referencing systems. It should be clear from a learner's work which evidence has been gathered from primary methods and which from secondary sources.

Cataloguing is an essential research skill and you should introduce it to learners so that they are able to present the results of their research in a suitable manner. It will also help them to prepare for the external assessment, where they will be required to condense their findings as much as possible.

For topic C, learners will be expected to assess the usefulness and relevance of their research data in relation to their original hypothesis or proposed outcomes. You should teach them to work methodically through their research proposals and what it is they hope to find out/achieve as a result of their activities.

The main focus of this topic is to evaluate the validity and reliability of their original ideas, their processes, methods and techniques, and their eventual findings. Learners should be able to be critical and analytical in relation to all of these factors and should be able to make adequate judgements about them.

Topic D is geared towards the final external assessment and the stimulus materials issued by Pearson. It should enable learners to apply their skills and knowledge to undertake research into the issues and debates raised by the stimulus materials. These will vary from year to year and will be based on the topics of genre, audience or technology. The external assessment gives learners parameters within which to work and requires them to apply all of their skills and knowledge to the proposed research topic.

All the work undertaken should focus on and be applied to the issues and debates outlined in the stimulus materials. Research should be fully and clearly collated, sifted and referenced. Learners should ensure that they pay adequate attention to all aspects of their research activities and record these accordingly, so as to assist in the completion of the final assessment task.

Assessment guidance

This unit is assessed externally, being set and marked by Pearson through a task which will be released in two parts. There is one opportunity a year to sit the exam.

Part A consists of pre-release materials that are based on the topic of genre, audience or technology and are designed to encourage research into contemporary creative media topics and debates. Learners should read through and carefully annotate these materials to identify the key issues and discussion points before undertaking their own independent research in preparation for the timed assessment.

Part B contains a range of questions that are based around the issues and debates outlined within the stimulus materials, the research methods and techniques used by learners and their research findings. The time allowed for the external assessment is two hours. In order to respond appropriately to the questions, learners will be allowed to take in four sides of A4 paper which contain their key research processes and findings.

Getting started

This gives you a starting place for one way of delivering the unit.
Activities are provided in preparation for the external assessment.

Unit 5: Specialist Subject Investigation

Introduction

Being able to conduct research within the creative media sector is an essential skill that will allow learners to gain a greater understanding of their specialist subject area. It will enable them to take a focused and disciplined approach to their practical activities, as well as inform their understanding of media issues and debates that affect all aspects of their work.

Topic A – Understand research methods and techniques

Learners should have undertaken some form of research during their studies at Key Stages 3 and 4 and possibly from completing their LV2 BTEC qualification. As such, they should have some underlying knowledge of some research methods and techniques. You will need to develop learners' skills and understanding of a range of methods and techniques. You will also need to introduce them to their specialist subject research foci.

- Introduction to current and past media issues and debates around genre, audience and technology is essential. Learners should be provided with an appropriate yet focused range of materials to study, which are relevant to the specialist subject area being studied. You could provide learners with links to current issues and debates which they will be asked to research or hold class/group discussions into specific topics that you feel are contemporary and have affected the specialist media sector being studied (for example, social media, file sharing or online gaming).

- You could ask learners to investigate a range of research methods and techniques. For example, begin with tutor-led presentations and discussions which cover a full range of methods and techniques and which outline their uses and purposes. This should be followed with practical activities and investigations being carried out by learners to allow them to utilise the skills and techniques they have learnt (for example, practising creating questionnaires, carrying out surveys and interviews or making library and internet searches).

- Ask learners to evaluate the strengths and weaknesses of each research method or technique, and allow them to decide which would be most appropriate for their purposes. Provide practical activities in which learners undertake basic research, such as web searches or annotation of extracts from books or journals, and analyse and evaluate the usefulness of each, and their fitness for purpose. You could ask learners to do a SWOT analysis on each method and technique. This will help them to gain a greater understanding of how and when each might be applied.

Topic B – Apply research methodologies to a specialist area of study

In this topic, learners will apply research methods and techniques. This is an essential skill that they will need to practise and perfect in preparation for completing the external assessment tasks. Learners will need to be able to conduct valid and reliable research, collate it and present it appropriately.

- Exploration of these methods and techniques is essential. You could provide learners with an initial idea/hypothesis to research such as how genre has changed over time within their specialist subject area or the notion of active audiences within a social media context. Then allow learners to undertake research activities into these topics, in order to practice their skills and obtain relevant information to be sifted and collated.

- Introduce learners to the discipline of collating, sifting and editing data through a series of practical activities that allow them to work through existing data and identify relevant materials and information. Learners could initially be provided with a range of material, that you have sourced, and asked to find relevant information within them on a topic relating to their specialist area. As learners' skills develop, encourage them to provide their own focus for their research activities and to make judgements about what they may potentially discover as a result of their research.

- Give out examples of correct referencing systems so that learners gain an understanding of how this is achieved. Learners should practice referencing from a range of sources, with particular emphasis on the disciplines of correct annotation, quoting and citing of sources, and use of the Harvard referencing system.

- Throughout the research process, learners should compile a catalogue of primary and secondary sources. By sifting and sorting through their materials, they will be able to scale down their findings into a manageable portfolio of evidence which they will require for topic D. Provide a range of activities that allow learners to gain experience of the cataloguing process and to work with existing examples in order to inform their own activities. By now learners should have gathered a range of research materials which they can sort through and put into order. They should be encouraged to section and label their work. It may also be beneficial for learners to work in pairs and discuss the suitability of the material that they have gathered, offering each other feedback and a fresh perspective.

Topic C – Assessment and evaluation of research in relation to a specialist area of study

Analysis is an essential skill for all learners conducting research. Analysis allows them to ensure the validity and reliability of their findings in relation to their original intentions. Learners can often struggle with this skill as it requires an element of critical evaluation of their own work and working processes.

- Provide learners with stimulus materials to assess the reliability and validity of others' work. As learners have undertaken a cataloguing process with their research findings they could carry out peer assessments of these, as this process often provides learners with an insight into the thoughts and opinions of others. Encourage learners to discuss their feedback as a class.

- Give learners time to conduct an analysis of their own research findings, especially in relation to any feedback they may have obtained. Learners should be encouraged to take a step back from their work, and appreciate that the thoughts and opinions of others are valid and worthwhile. You could ask learners to produce a report on their findings that identifies the best methodologies to apply to their work. They should then review their own work in the light of their findings and be encouraged to analyse whether they have utilised the most appropriate methods. As learners are often more able to be critical of the work of others than of their own work, they could also be encouraged to apply their findings to the work of their peers.

Topic D – Interpret and draw conclusions from research data on contemporary media issues or debates

Topic D should ideally allow learners to apply their skills and knowledge to the pre-release stimulus materials. The time allowed for this is limited and therefore learners should take a systematic approach to their activities in order to ensure that they produce materials relevant to their assessment activities in the given time.

- Issue learners with the pre-release materials on which to work. They need to be able to identify the key issues/debates raised. It is essential that the research activities are contextualised to the appropriate media sector in which they are working. Learners will be required to conduct primary and secondary research on an individual basis.

- Make sure that learners use a range of methods and techniques to conduct their research. Ensure also that learners understand that they need to apply the skills that they have learnt to create informed opinions on the impact of the chosen issue/debate. Stress to learners that they need to make suggestions for future research and identify developments and changes in audience, genre or technology, as specified in the stimulus materials. Learners could be encouraged to start by making a research plan based on the main issues and debates. This will give structure to their activities.

- A research catalogue, similar to that produced for topic C, should be put together to outline key evidence and findings and show learners' processes. Although learners will be applying the same skills that they have learnt and they should be familiar with the processes involved, support and guidance may be required and can be offered. Help learners to sift and collate their research findings so that they have only relevant information. They should further condense this into a document, which should be no longer than four sides of A4 paper. They will be able to take this document with them into the final controlled assessment.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

● *Unit 6: Media Campaigns*

● *Unit 7: Media Enterprise*.

Research is an essential part of all media activities and should be included in the planning phase of production units and should be seen in a wider context of supporting the qualification as a whole.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

• Anderson J A – *Media Research Methods* (Sage Publications, 2012)
  ISBN 9781412999564
  This book provides overviews and insights into a number of research methods and techniques, discussing reliability, validity and looking at cataloguing of information.

• Devereux E – *Media Studies: Key Issues and Debates* (Sage Publications, 2007)
  ISBN 9781412929837
   This is a publication by a range of authors that covers a number of contemporary media issues and debates, providing clarity and context and stimulating further discussion.

• Jensen K B – *A Handbook of Media and Communication Research: Qualitative and Quantitative Methodologies*, 2nd Edition (Routledge, 2011) ISBN 9780415609654
  Covering both quantitative and qualitative research methods and techniques, this book offers insight and guidance into how best to plan and undertake research.

Websites

• www.barb.co.uk
  This website provides weekly UK audience figures.

• www.mediaknowall.com
  This website contains a number of articles and discussions, aimed at A and AS Level students, on a range of media issues and debates.

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Unit 6: Media Campaigns

Delivery guidance

Approaching the unit

This unit is a mandatory unit which is internally assessed. The unit seeks to assess the knowledge and understanding of how cross-platform media campaigns are planned and created. It is recommended that you approach the unit as a way to introduce learners to the cross-platform nature of most of today's digital media content and the interconnectivity that is a central part of most media campaigns. As with all the units in this qualification, this unit is designed to enable learners to 'link' their learning in one area to their understanding in another. As such, you should approach the teaching of the unit with this in mind, encouraging learners to draw upon the knowledge acquired within it when developing their digital media productions in other units.

This unit deals with the preparation and production of a cross-platform media campaign and in your teaching you should ensure that you communicate to learners that all media sectors make use of media campaigns., Learners should understand that the knowledge and skills they develop in this unit can be transferred to any media sector. The planning skills that will be developed in this unit are valued by employers, and you should communicate this to your learners to enable them to see the wider benefit of their learning.

Delivering the learning aims

For learning aim A, your learners need to know what the purpose and features of media campaigns are. To recognise what a media campaign is, and to understand its purpose, you will need to expose learners to a wide range of different media campaigns. You will need to ensure that you have a range of diverse cross-platform media campaigns to show. These examples can then be referenced across the learning aims, when delivering the content, to illustrate how real media campaigns look and work. Make sure that these campaigns cover the range of purposes under topic A1 (e.g. a national media campaign by a political party during an election or a local council campaign to encourage recycling in the borough). Once learners are familiar with their features and purposes, you could then set tasks whereby learners have to research and present additional examples, annotating their features and purpose. Examples of media campaigns can be easily found online, but you should also ensure that learners are exposed to campaigns across a range of media platforms (e.g. print or broadcast). Therefore, you will need to have access to magazines, TV, print materials and radio, in addition to internet access.

Class displays would be an effective way of visually illustrating the cross-platform nature of the campaigns, with annotations to draw attention to their features. Your learners will need to understand that all media campaigns are measured for their effectiveness. Looking at the communication channels used to target audiences for specific campaigns will help learners to understand the correlation between choice of communication channel and intended target audience. Asking 'who', what', 'where' and 'why' questions will help to focus the analysis. The effectiveness of past media campaigns can be research online; you could look at statistics to show how patterns of behaviour were changed, or how consumer reactions to campaigns were monitored.

One good way to model how to deconstruct a media campaign is to prepare, as a class, a case study analysis of a successful media campaign, analysing its features and purpose in detail. You should also draw conclusions as to why the campaign proved effective. This would be useful preparation for learners' individual assessments. Ideally, you could arrange a visit by a guest speaker from a media company to discuss and show media campaigns. Most local councils run media campaigns across the borough (or wider) and these would make useful case studies. You could ask a local council representative to visit to talk about such a campaign and how they measured its effectiveness. The research and findings undertaken for learning aim A are likely to also cross over to those needed in learning aim B, so draw learners' attention to this. For example, the media strategy for a campaign may form part of the research when looking at the features, purpose and channels of communication.

Learning aim B is all about the essential preparation for running a successful media campaign. Make links to learning aim A where learners established what real media practitioners do when running media campaigns. Recap the features, purpose and channels of communication for media campaigns and then link these to what learners themselves are about to do in this learning aim. From here, content for B1 should be delivered first, as learners' formative research has to inform their media strategy and preparation of materials for use in their own campaign . The assessment of learning aim B centres on learners justifying their own media strategy and choice of materials. You may want to model to your learners how to plan a media strategy based on formative research findings. You could make use of flow charts, mind maps or other visual aids to show the ways that formative research should lead directly to decisions about the media strategy and preparation of materials. Learners are often keen to get going with their ideas, but it is important to make sure that they can show how their formative research was used to justify all the decisions they make . Prepare them for making those justifications by spending time thoroughly analysing formative research findings. Show that research findings (B1) link to the planned strategy (B2), which then link to the preparation of campaign materials (B3). You should deliver the learning aims in this order. Examples of media strategies and templates to create them can be sourced online and would be useful as exemplars to show to learners when delivering the content for B2. As a class, they could look at a 'live' current media campaign as an effective way of illustrating and understanding 'cohesion', 'cross-platform synchronisation' and the other terms common to this learning aim. Make use of your learners' existing skills with navigating social media using their phones, print and broadcast platforms to look at how a media campaign is linked across different platforms, and how cohesion is created. However, learners must not simply copy an existing media strategy. They will be assessed on their ability to formulate a strategy and prepare materials based on their own formative research findings.

Help learners understand how materials are prepared for a media campaign by breaking down all the tasks associated with sourcing and preparation of content, design of materials and pre-testing with an audience. These aspects of preparation will be common to whatever type of campaign they go on to produce, so emphasise this to help them see the benefit of their learning at this stage of the unit.

In Learning aim C, learners should understand how to produce the materials and implement the strategies for their own cross-platform media campaign. They need to be taught the practical technical skills required to make the content. Holding technical skills workshops for creating each of the material types listed in C1 would be one way of ensuring that all learners have opportunities to practise and develop skills before they work independently. For example, you could run a workshop that demonstrates how to lay out a poster, or how to create a QR

code. Make use of learners' existing knowledge, and utilise 'flipped learning' techniques: ask learners who have knowledge of blogging, using hashtags, etc. to give demonstrations. There is also a wealth of 'how to' videos on YouTube. Provide a bank of readily accessible reference sheets and/or links that recap how to perform these practical technical tasks for learners to refer to when they work independently. Provide examples of campaign house-styles and model how to create these by applying filters, fonts, etc. Learners will need to understand that their media campaign has to be implemented with precision and within a pre-planned timescale. You could, as a class, track the implementation strategies of a current media campaign to help learners understand aspects such as timing of releases, repetition and optimising publicity. Creating and then displaying this media campaign 'implementation strategy' would help learners to understand associated events and timescales. They can apply these to their own campaign.

This learning aim is an opportunity for you to deliver highly transferrable practical media skills to your learners. Their campaign materials could be linked to other optional production units. Ensure that they make these links and see the value of the practical work they are doing in this learning aim.

In preparation for your learners' review of their own cross-platform media campaign, you could model how to monitor this by using a current 'live' campaign. Show learners how to find useful data for monitoring a campaign, such as the number of 'retweets', 'likes' or 'comments' on social media, and the numbers of leaflets or brochures distributed for print-based materials. You could also make use of case studies of past media campaigns, which can be found online. Such analysis often makes reference to the 'reach' of the campaign and provides other relevant data which will be a useful teaching tool. A written modelled example that shows your learners how to analyse such data would also be useful. You could then set a class task, asking learners to analyse some different campaign data as practice for analysing their own. Learners will need to keep records of their own campaign data, so make sure that you show them how to screenshot evidence. Annotated screenshots are a useful tool for analysing social media data.

In preparation for their final evaluation, provide learners with guided questions to focus their review and to ensure that they ask meaningful questions when they record the audience response. To avoid the review becoming just a list of what they did well or badly,,provide learners with a writing framework to guide them in making explicit links between their implementation strategies and the impact they had on the effectiveness of the campaign. Again, visual tools are useful to help learners see the impact of their decisions. They could draw cartoons, create flow charts or infographics to plot the trajectory of their own media campaign. These could then be used to help the learners create their reviews.

Learning aim	Key content areas	Recommended assessment approach
A Understand the purpose and features of media campaigns	**A1** Purpose of media campaigns **A2** Communication channels for a campaign **A3** Features of media campaigns	Case study analysis of existing media campaigns. The findings of the case studies could be presented as an oral, visual, written (or combined) presentation/report identifying and analysing their purpose and key features.
B Develop a cross-platform media campaign	**B1** Formative research **B2** Media strategy **B3** Prepare materials for campaign use	A development portfolio, including evidence of learners' research findings, details of their planned media strategy and evidence of preparation of campaign materials such as drafting, mock-ups, layouts, scripts.
C Produce a cross-platform media campaign	**C1** Production of campaign **C2** Creating cohesion within campaign **C3** Strategies for implementation	Presentation of the complete campaign to enable all materials to be seen together, e.g. blog or physical portfolio. Visual presentation, audio report or written report to show evidence of creating cohesion, strategies for implementation.
D Review a cross-platform media campaign	**D1** Monitor and review campaign	Records of data collection from the campaign such as printouts, screen shots. Evidence of undertaking audience feedback such as interviews, questionnaires. A review of the campaign in the form of a written review, (blog, essay, report), audio review, or visual presentation.

Assessment guidance

This mandatory unit will be assessed internally. Assessment should be in the form of a report linked to each learning aim showing the development of strategies and content to form a cross-platform media campaign, leading to the creation and review of each learner's own media campaign.

Evidence for assessment can take the form of written documents, audio recordings or video evidence. The final media campaign will need to be presented for assessment in a form that allows the assessor to see the campaign as a whole across the multiple platforms. A blog or other electronic format with the appropriate links to social media content would be appropriate. It is essential that the assessor can access any links, hyperlinks, etc. that the learner has created, as these will form the basis of some of the assessment decisions. The assessor will also need to see the associated media strategy and planning of content. Any physical campaign materials such as posters, brochures, etc. will need to be scanned and included, and hard copies stored securely for assessment.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 6: Media Campaigns

Introduction

Learners will need to understand the features and purpose of cross-platform media campaigns. Learners will develop skills to enable them to plan and create their own cross-platform campaign.

Learning aim A – Understand the purpose and features of media campaigns

This learning aim is focused on understanding the purpose and features of media campaigns. This understanding will inform the learners' own work in creating their own campaigns in the rest of the unit. Introduce your learners to media campaigns by creating an interactive classroom display of a range of different cross-platform examples.

- Have examples of materials from media campaigns from TV, social media, print and radio displayed in the room, and allow learners time to go around and interact with these.

- Next, you could put learners into small groups and ask them to identify which materials from across the different platforms go together to form a campaign. Then, draw the learners together and pose the following questions to answer as a whole class.

  - How could you tell which materials go together to form a campaign?
  - How is cohesion created between the different content within the campaigns?
  - What do you think the purpose of the campaign is?
  - Who do you think is the target audience for each campaign?
  - How has the content of the campaign been created to appeal to that audience?
  - How has social media been used within this campaign?

- Next, set them research tasks in small groups. Each group should use the internet to find additional examples of media campaigns, analyse their features and consider how they achieve their purpose. Some examples are:

  - a political campaign to win votes
  - a health campaign to change behaviour
  - a local council campaign to raise awareness of a new scheme.

- They should use the same set of questions as used previously, but in the context of the new examples, to consolidate their understanding of key terms.

- Ask each group to feed back their findings to the rest of the class and use these presentations to create case study examples. These put onto your shared learning platform. Particular emphasis should be placed on analysing the features and purpose of a campaign, with detailed illustrative examples. Add any additional comments/observations from class feedback.

- Invite a local media company or council representative to attend a lesson to give a talk to the class about campaigns that they have run or created. Learners should prepare a set of questions to ask in advance of the visit relating to the 'who', 'why' and 'where' of the campaigns. They could film the talk and use the information for this learning aim, and for learning aim B, to help them understand media strategies. If possible, arrange a visit to a local media company involved with media campaign creation.

- In particular, learners should consider the ways in which their research will inform their own media campaigns in the next learning aim.

Learning aim B – Develop a cross-platform media campaign

This learning aim is about preparing and planning the content and strategies for learners' own campaigns. Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of media campaigns that they carried out in the first learning aim in order to inform their own campaigns. As such, you should take a holistic approach to the delivery of these learning aims.

- Prepare your learners for independent formative research by modelling how to find out the essential information that they will require to start planning a media campaign. Try to engage a local business or council representative to set a brief for a campaign they want to run. Use this exercise as an opportunity to develop learners' research skills. Show them how to establish the purpose and message of the campaign and set them some individual tasks whereby they have to find out specific information from the target audience. The emphasis throughout this stage is on showing them *how* to perform formative research. Guiding them through it at this stage will give them the knowledge and skills they need to undertake their own research, independently, for final assessment.

- Once learners understand what formative research is, and have developed their skills in this area, they could move on to learning about media strategies for campaigns. Set them research tasks to explore information on media strategies from books and the internet and ask them to create visual representations of the process to display in class. Ask them to practise applying a media strategy to the brief they have been given. They should consider:

  o identifying and selecting media platforms and communication channels

  o establishing a campaign timeline

  o sequencing/synchronising of events and their frequency

  o how to link the products across multiple platforms to create cohesion.

Learners will need to understand the requirements of drafting and then testing their campaign content with the intended target audience. Allow them opportunities to practise drafting campaign content and making amendments. Learners should get into the habit of properly recording their decision making and making overt the links between what they plan to do next and their previous research. Ensure that they take screenshots or use video/audio to record their drafts and decision making.

Learning aim C – Produce a cross-platform media campaign

This is where your learners will undertake the practical/technical tasks associated with producing a cross-platform media campaign. You will need to teach them the required technical skills and provide opportunities to practise and develop their skills in this area.

- Practical/technical skills workshops would provide learners with the essential knowledge and opportunities for skills development. You will need to provide practical demonstrations and follow these up with reference sheets or video recordings of the workshops to enable your learners to perform the tasks

independently.

- Encourage 'flipped learning' where any learners who are already skilled at performing any of the practical tasks teach others how to do it.

- The interconnectivity inherent in a cross-platform media campaign is key here so you will need to make sure that learners understand how to test hyperlinks, QR codes, feeds, etc. You could set tasks in which learners create these, and then ask other class member to test if they can access them. Prepare learners for creating cohesive campaigns by practising the use of tools such as filters and through applying cohesive fonts.

- Ensure that your classroom is full of visual references to existing media campaigns by asking learners create annotated class displays.

Learning aim D – Review a cross-platform media campaign

- Learners need to know how to produce a review of their media campaign with detailed reference to their planning, campaign data and audience feedback.

- Get your learners to start writing reviews by justifying their choice of content/strategies they used in the practice class activities in learning aims B and C.

- Allow learners to practise analysing live campaign data from a range of social media platforms. Follow a live media campaign on, for example, Twitter, Facebook or Instagram, and then model how to make an analysis using the data on such sites (e.g. 'retweets', 'likes' or 'favourites'). Task them will identifying audience reactions by reading and analysing comments, and conducting interviews. Show them how to use this data to draw conclusions in a meaningful way.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 5: Specialist Subject Investigation*
- *Unit 7: Media Enterprise*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Atkinson S, Mortimore R and Wring D – *Political Communication in Britain: The Leader's Debates, the Campaign and the Media in the 2010 General Election* (Palgrave Macmillan, 2011) ISBN 9780230301450 – The chapters that deal with the media campaigns for the general election would provide useful examples of the role of social media and traditional media.

Videos

- https://www.youtube.com/watch?v=BLGOskqBtmc.
  This is an excellent tutorial based on the audio book *How to Create a Successful Social Media Campaign in Today's Crowded Market* by Zhanna Hamilton. This is also available to download to read as an e-book.

- https://www.youtube.com/watch?v=TjtQ0QocsPk
  This is a fun TV show, much like *Dragon's Den*, that shows the successes and failures when contestants are pitched to create a social media campaign.

Websites

- https://www.youtube.com/
  A valuable source of content for learners to research and watch 'how to' tutorials relevant for the creation of campaign materials. Also useful to see how YouTube channels and vlogs are used as part of media campaigns.

- http://www.thevideoeffect.tv/
  The Video Effect. A useful source of tips for creating and using video content for marketing and online platforms, including media campaigns.

- http://singlegrain.com/video-marketing/20-pre-production-steps-to-video-content/ – Single Grain is a digital marketing agency. This blog section of their website provides a useful guide to planning and producing video content for online marketing. There is plenty of other relevant content on their website too.

- http://www.imediaconnection.com/content/38914.asp - multiview.
  A 'best of' list of the most innovative social media campaigns this year from iMedia Connection. A good resource to allow learners to see real examples. This website also has good links to other relevant content for this unit.

- http://www.smartinsights.com/traffic-building-strategy/integrated-marketing-case-studies/
  This website provides a very clear overview of integrated marketing campaigns. It would be a useful resource to show the use of different platforms and communication channels used in real campaigns (relevant for A2 & A3 topics). It also provides a summary of the timeline of releases and implementation strategies used in the campaigns, so is useful for delivering topic C3 content.

Unit 7: Media Enterprise

Delivery guidance

Approaching the unit

This unit is a mandatory unit which will be internally assessed. The unit seeks to assess the knowledge and understanding of how enterprise skills can be used to initiate and develop ideas for new media products or services. It is best if you approach the unit as a way of introducing learners to the diverse range of media enterprise skills (such as problem solving, using initiative and working independently). Learners should understand that such skills are essential for initiating ideas for new products and to enable successful planning and production of new media products or services.

In your teaching of this unit, ensure that you communicate to learners that enterprise skills are essential for all media productions in all media sectors. Learners will then understand that the knowledge and skills they develop in this unit can be transferred to any media sector. The enterprise skills developed in this unit are highly valued by employers. Make sure that your learners see the wider benefits of this learning.

Delivering the learning aims

For learning aim A, learners will need to understand the enterprise skills that are necessary for generating ideas for a new media product or service. Once they recognise and understand this set of skills, they need to know how to apply them when they undertake research to generate an idea. You will need to show them ways of recording how they generated their ideas through research, and the enterprise skills they applied during the process. Learners need to know the purpose and features of a media brief, and how to write their own brief to create a new digital media product or service.

To recognise what is meant by a 'new' digital media product or service, learners need to be exposed to a wide range of different examples. Ensure that learners understand that 'new' encompasses new or improved features or functionality of existing digital media products or services, not just a brand new product from scratch. Have a range of new products or services either physically in the class, or online, to show them. Show examples of the advertising materials for these products and services and use these to identify what is 'new' about them.

To help learners understand the process of research to generate ideas, you could use episodes of the TV programme *The Apprentice* or *Junior Apprentice*. There are plenty of episodes in which contestants have to come up with ideas for new media products or services. These provide useful examples of people performing many of the tasks linked to A2 content. You could then link this to the A3 content by having learners identify the specific enterprise skills demonstrated by contestants. Show your learners examples of charities and organisations who work specifically to help encourage enterprise. You could set 'mini enterprise' competitions in class so that learners can practice enterprise skills. Create class displays to break down the enterprise skills and show examples of individuals or organisations that demonstrate these in action. There are many examples of enterprise and innovation awards in the public sphere to which you could refer. Many business studies courses teach enterprise skills so, if you have such

courses running in your own school or college, you might ask if a student or teacher from that department could come and talk to your learners. Ask them to provide examples of how they have developed and applied those skills. You could then link this to the media context.

To help learners understand the purpose and features of a brief, provide a bank of examples from media sectors and model how to write one. Example briefs can be sourced online.

Learning aim B is about the application of enterprise skills during the planning stage of the production of a new media product or service. Learners need to record how they applied enterprise skills during this stage. You will need to show them methods for making such recordings, which can be written, visual or audio. Make links to previous learning in learning aim A, where they established what enterprise skills are and how they are applied when generating ideas. Then link this to the subsequent planning and delivery of a media product. The first thing your learners need to do for learning aim B is decide which product or service idea they will produce. Start by showing them *how* to make that decision by modelling the decision-making process. Generate a case study as a means of showing the correct process for selection of a product or service. Address each of the bullets from the B1 content in the case study. Learners can then refer to this as a guide when they work independently. From here, deliver the content for B2. You could continue to use the case study to show how to carry out the planning for a new media product or service. The key here is to ensure that you explicitly show *how* enterprise skills can be applied to the planning process so, in the case study, you will need to signpost very clearly when opportunities for these arose. Annotations, diagrams, cartoons or captions are useful for indicating where enterprise skills were applied in the given scenario of the case study. You could develop this further by giving learners more scenarios for planning a new product or service, so that they can practise the pre-production planning requirements (B2 content). You could then ask learners to identify and record the enterprise skills that they applied and developed during the planning tasks. This will provide an opportunity to practise creating an enterprise skills portfolio. Learners will be required to work on such a portfolio independently for B3 assessment.

In learning aim C, learners should use technical skills to produce their media product or service. Depending on when this unit is taught in relation to the other production units in the qualification, learners may have already developed the required practical technical skills. You will need to assess this before you start delivering this learning aim, and then provide the appropriate level of skills workshops in your delivery. Make sure that you teach your learners how to use production tools in innovative ways, so that they can see how they could apply them for themselves when they work independently. Show them examples of innovative use of camerawork, editing, desktop publishing and so on, and create class displays of these as inspiration. This could be done as an in class activity with students.

In addition to technical production skills, this learning aim covers development and application of learners' enterprise skills for production. You need to show them which enterprise skills are required during production of a media product or service, and how to apply them. You may wish to continue with your case study from the previous learning aims, following it through to the production stage. You could invite a representative from a media production company to talk to learners about how their products and working methods have demonstrated enterprise. It will always help your learners to see 'enterprise in action', so try to offer as many examples as you can of individuals being enterprising. Be sure to break the examples down to specific skills such as 'working independently' or 'using initiative' so that learners gain a clear understanding the kinds of actions

they could perform to demonstrate such skills. Providing a range of 'what if?' scenarios (based on the production stage) for learners would be a good way to get them thinking about how they could apply enterprise skills for themselves in a given situation.

The purpose of learning aim D is to prepare learners for reviewing their own product/service and how they applied enterprise skills. You will need to model how to conduct and present such a review. To do this, you could make use of the previous case study, adding a final review section. This would model how to review the end-product or service (C1 content). You will also need to show your learners how to conduct a review of their enterprise skills (C2 content). As they will not have created their own final product yet, or applied their own enterprise skills, ask learners to practise by reviewing the enterprise skills they applied in the 'what if?' scenarios (in learning aim B), or the skills demonstrated by others. You could also ask learners to review the enterprise skills of the contestants in episodes from *The Apprentice*. Use the final boardroom scenes for this, where contestants present their product or service. You could create a 'review of enterprise skills' template as a guide for learners to use during these activities.

In preparation for the final evaluation, provide learners with guided questions to help them focus their review and to ensure that they ask meaningful questions when they record the audience response. To avoid the review becoming just a list of what they did well or badly, provide a writing framework that guides learners on how to make explicit links between application of enterprise skills and the *impact* of the skills on the overall success of their media product or service. This framework could then be used to help learners plan their own reviews.

Learning aim	Key content areas	Recommended assessment approach
A Develop a brief for the production of a new media product or service	**A1** Understanding new digital media products or services **A2** Research to generate ideas for a media product or service **A3** Enterprise skills for generating ideas **A4** Writing a brief for the production of a new media product or service	A research and ideas portfolio of evidence to document the research undertaken and to evidence the generation and application of ideas and enterprise skills. Additional teacher observation of application of enterprise skills. Final written brief.
B Apply enterprise skills to plan the production of new media product or service	**B1** Select product or service for production **B2** Pre-production planning **B3** Enterprise skills portfolio	Statement of intention for product or service production, detailing how it meets the requirements of the brief (written, visual or verbal). Enterprise skills portfolio (electronic or hard-copy format) to document the planning process and the enterprise skills applied. Verbal, visual or written evidence in the portfolio. Additional teacher observation of application of enterprise skills. A finished new media product or a completed media service.
C Produce a new digital media product or service through application of media enterprise skills	**C1** Production of media product or service **C2** Enterprise skills portfolio	Enterprise skills portfolio (electronic or hard-copy format) to document the planning process and the enterprise skills applied. Verbal, visual or written evidence in the portfolio.
D Review media enterprise skills	**D1** Review end product or service **D2** Review of enterprise skills	Additional teacher observation of application of enterprise skills. Written, verbal or visual review of the product/service and the enterprise skills used (electronic or hard-copy format).

Assessment guidance

The evidence for this unit should be presented as a portfolio that records the generation of ideas, planning and production of the media product or service, and the application of the associated media enterprise skills by the learner. This could be a hard-copy portfolio or be in electronic format (e.g. a blog). Centres may choose to ask learners to create separate portfolios for each of the learning aims or to assess them together. If they choose to present the evidence for assessment in one portfolio then there should be clear indications of where the evidence for each learning aim is within the portfolio. Evidence within the portfolio could be presented in written, visual or audio formats.

To achieve the higher grades for this unit of work the assessor will need to see evidence that the learner has consistently applied appropriate media enterprise skills across all the learning aims. The assessor should be able to clearly identify the application of the skills by the learner, through the presentation of a comprehensive portfolio. To achieve the higher grades, the learner must make the impact of their application of enterprise skills on each stage of the production explicit in the portfolio.

There will be a requirement for additional teacher verification of the application of enterprise skills by the learner (e.g. to verify that they worked independently on tasks, or used their initiative to problem solve). Where this is deemed necessary, the teacher should provide a record of observation. Such record sheets should not be used in the absence of portfolio evidence from the learner, but rather as an additional verification.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 7: Media Enterprise

Introduction

Learners will need to understand how to develop a brief for the production of a new media product or service. First, they will need to understand what media enterprise skills are, and then they should develop and apply enterprise skills to plan and produce a new media product or service. The unit ends with a review of both the end-product or service, and of the application of enterprise skills by the learner.

Learning aim A – Develop a brief for the production of a new media product or service

This learning aim is about understanding what media enterprise skills are and then being able to apply these when undertaking research to initiate ideas for a new media product or service. At the end of this process, the learners will need to write a brief for the creation of that product or service.

- You could start with a class 'show and tell' activity where you and your learners show any new media products or services that you have recently bought/acquired/been given (e.g. a new app on your phone). Show off the new features, discuss why it works better (or not), and question your learners about why the company felt the need to make this new product or service. What creative ideas were used in the creation of this new product or service?

- Next, screen an episode of *The Apprentice* in which the contestants were given a brief to create a new media product or service. Identify the research tasks that the contestants needed to undertake when they were coming up with ideas. In particular look at:
	- o primary & secondary research methods
	- o market research
	- o consumer research.

- You could ask learners to create a brief 'research and ideas portfolio' to record the research that the contestants did in the show and what their product ideas were.

- Now deconstruct the enterprise skills that the contestants applied during the process. Ask learners to think about:
	- o how the contestants worked in a team
	- o how the contestants showed self-motivation to work independently to perform tasks
	- o how the contestants demonstrated creativity to come up with ideas
	- o how the contestants were able to adapt so as to improve their ideas.

- You could then ask learners to record the enterprise skills applied by the contestants into the 'research & ideas portfolio'.

- You could ask learners to look again at who got fired at the end of the show. How could that person have better applied enterprise skills to improve their performance in the task?

- Finish the learning aim by practising writing a brief. Ask learners to write a brief for the creation of the product that was produced in the show.

- Learners should consider the ways in which their research will inform their own media productions in the next learning aim.

Learning aim B – Apply enterprise skills to plan the production of new media product or service

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of media products and services that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

This learning aim starts with knowledge and understanding of how to select a product or service for development. Learners must then know how to plan for a new media product and service and be able to apply enterprise skills during the planning process. The evidence for this learning aim should be recorded in an enterprise skills portfolio.

- Generate a case study to use for delivering this learning aim. The first part of the case study should act as a guide for showing learners how to make decisions about selecting an idea for a product or service. You should detail:

    o adherence to demands of the brief

    o assessing viability of selected product or service

    o availability of sufficient financial, technical and human resources

    o statement of intention.

- Next, you could use the case study to show learners how to plan for a new media product or service. Use annotations, diagrams, cartoons, and so on, in the case study to signpost where enterprise skills were applied and how they contributed to the successful planning for that media product/service.

- Give learners practice tasks in which they need to record the application of enterprise skills in a portfolio. The tasks should cover verbal, written and visual methods of recording. Provide scenarios in a media context to allow learners to develop an understanding of how enterprise skills apply to the planning process.

Learning aim C – Produce a new digital media product or service through application of media enterprise skills

Here your learners will need to understand how to apply media enterprise skills when producing their new product or service.

- Once assessment of existing technical skills has taken place, start to deliver 'practical skills workshops' to teach your learners the essential production skills that they will need. Refer to C1 content here.

- Demonstrate innovative application of technical media skills in your workshops and provide further examples of other media practitioners applying these techniques. Make a visual reference of the application of innovative production skills though a class display or a Pinterest board.

- Set a class activity to create a 'That's Enterprising' class display. The display should show examples of new media products or services. Ask learners to think about the media enterprise skills that were required during its production. They should make labels/annotations for the display, with specific references made to the following:

    o problem solving

    o working independently, self-motivation, assessing own skills and using own initiative

- - team working skills e.g. negotiation and delegation
  - time-management, meeting deadlines and prioritising tasks.
- You could set learners practice activities for the development of their own enterprise skills portfolio. Ask learners to assess their own production skills and record how they could go about improving these skills.
- Set a range of problems learners may encounter during production. Use these 'what if' scenarios to get learners thinking about how they would use their initiative to overcome problems/manage tight deadline/prioritise tasks etc.

Learning aim D – Review media enterprise skills

Learners will need to know how to review their end-product or service and to evaluate the application of enterprise skills throughout the whole production.

- Model to your learners how to write a comprehensive evaluation and give them opportunities to practise writing or recording their own.

- You could prepare learners for evaluating their own media enterprise skills by creating a case study scenario and asking them to identify good and poor application of the skills. Ask them to identify the specific enterprise skills that led to problems or contributed to the overall success. Hold class discussions in which you go through the case study and discuss what went wrong and why. Brainstorm learners during these sessions and ask them to create mind-maps to illustrate their thoughts. Ask learners to consider whether the correct procedures were followed and task them to create an improvement plan for future productions.

- Deconstruct the end of *The Apprentice* episodes, focusing on how successful the end-product or service was, and how the contestants' enterprise skills impacted on the process.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 6: Media Campaigns*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbook

- Ogunyemi J – *How to be a Student Entrepreneur* (Academy Press, 2011) ISBN 9781907722585
  This book is aimed specifically at students and provides guidance for how to develop the necessary enterprise skills. It also offers practical examples**.**

Videos

- https://www.youtube.com/watch?v=Vx0XrE21GJM
  This is a video of a presentation by Nick Holzherr, a young media entrepreneur discussing how he started out and detailing his ideas generation and problem solving along the way. It would provide a useful resource to identify real application of enterprise skills. There are more of his videos on YouTube.

- https://www.youtube.com/results?search_query=Student+media+enterprise+awards
  This is a link to a range of videos showing student enterprise awards. It would provide a useful resource to show examples of enterprising students and enterprising ideas for products or services.

Websites

- http://www.kent.ac.uk/enterprise/hive/student-enterprise/ – This is a hub for innovation and enterprise hosted by The University of Kent. It is a useful resource for teachers to show how students have applied enterprise skills and initiated and developed innovative ideas. They also run competitions that may provide teachers with ideas to use for themselves when delivering the unit.

- http://creativeskillset.org/
  Creative Skillset is the industry skills body for the Creative Industries in the UK. Their website provides resources and links related specifically to media enterprise skills. The 'Real Life Stories' section of the website could be used as way of helping learners to understand how individuals can apply enterprise skills to train or work in media sectors.

- http://www.young-enterprise.org.uk/ – Young Enterprise is a UK charity that aims to empower young people to harness their personal and business skills. Whilst not media specific, this website provides a useful range of resources related to generic enterprise skills.

Unit 8: Responding to a Commission

Delivery guidance

Approaching the unit

In this externally assessed unit learners will be tested on their ability to respond to a given scenario using their understanding of the production process for creative digital media products as well as their creativity and problem solving skills. Learners will receive some background information from a client along with a brief. Learners will need to analyse the information, ensure that they fully understand the brief and create proposals and documentation towards it in a chosen media sector.

The key to this unit is that learners need to be able to use the given information from the client to prepare realistic and creative solutions to a problem, while also demonstrating a sound understanding of the media production processes in their chosen media sector. Learners will also need to be able to adapt and change their ideas and proposals if the client changes the parameters of the brief during the process.

In order to prepare for this unit, learners should practise reading background information, including data from given scenarios, and be able to individually formulate ideas for media products. Learners need to be able to write clear proposals for their ideas and create pre-production materials (such as scripts, storyboards or thumbnail layouts) to communicate their ideas to the client.

Delivering the topics

The delivery of topic A should support the development of the skills needed to respond to the material that will be provided in Part A of the external assessment. Within the first section of the external assessment, learners will receive a brief from a client with some background reading (such as a press release or statistical information). Learners will need to demonstrate that they have understood this content and can clearly explain how they will use this information within their solution to the brief. Learners will need to be shown examples of briefs and information about potential clients so that they are able to respond effectively to any given brief. Learners will need to be able to identify elements of a brief, such as the delivery platform, target audience, potential budgets and the influence of regulatory bodies on any potential production.

It is important that learners are given opportunities to develop individual ideas for potential media products and that they are confident in justifying their response to their analysis of briefs and stimulus material.

This could be achieved by supplying learners with a range of real or simulated scenarios. These could be briefs or materials from charities, local community organisations or public sector bodies, such as press releases and research information. Learners should use these materials to practise analysing research findings and background information, profiling the client and generating ideas in response to briefs. They should also be able to provide rationales as to how these ideas fit the client or brief.

For topic B, learners will need to be given opportunities to develop the communication skills that will be invaluable in a role in the media sector. Learners need to be able to communicate their ideas swiftly and persuasively in the form of a pitch. They will need to have practised this skill during the course, ahead of the external assessment. To help learners develop a structure and effective writing style for pitching their ideas to a client they could be given writing exercises. They will also need to develop the correct vocabulary and use of terminology and specialist language.

Learners could be given tasks in which they practise preparing a persuasive pitch (with limited word counts and timescales) and then present these back to the group for feedback.Learners should also understand how to structure a formal proposal to a client that offers alternative ideas and refers to the brief and the context of the project.

Topic C introduces learners to the key issues that they need to consider when planning their media product proposals. Learners need to develop an understanding of the ways in which a production can be managed financially as well as logistically, and they need to be able to provide cost breakdowns, alongside indications of production scheduling for the project. Activities that involve creating costing sheets and schedules for a media production will help learners develop these skills. They should be asked to present their results to the group and then a class discussion of the range of budgets and schedule durations can be held, with the class debating the feasibility of all the proposals.

Learners should demonstrate awareness of ethical and regulatory considerations when proposing approaches to the production for the brief.

Delivery of topic D will help learners to develop the skills they need to communicate their ideas through storyboarding, providing scripts, thumbnail layouts of products and through providing feasible plans that outline how their projects can be produced. Workshops in which learners present their ideas through a range of documentation should make it easier for them to apply these to the brief given in the external assessment.

Learners are likely to need guidance as to how to discuss their ideas stylistically. First, ask the learners to describe how existing media products are produced, as this will help them to find ways of describing their own ideas for production. Tasks such as these will enable learners to develop a suitable vocabulary for describing the stylistic codes, as well as the media production process itself.

Assessment guidance

Within this unit, learners will be given access to Part A of the assessment up to two weeks before the scheduled assessment. Over this period, learners can carry out preparatory work in which they can generate and plan ideas in response to the commission. Be aware that learners will not be allowed to take any notes into Part B of the assessment, which will be a task to be completed in 5 hours under supervised conditions in a period timetabled by Pearson. In order to successfully complete Part B, learners will need to have developed the ability to communicate their ideas effectively, efficiently and within a short timescale. To prepare for Part A in advance of this, learners need to have been given the chance to brainstorm creative ideas in response to real or simulated scenarios.

It is important that learners are able to demonstrate their understanding of production processes when giving solutions to briefs. There has to be a sense that the product is feasible throughout this process and that each learner has given some thought as to how their idea could practically be realised.

Getting started

This gives you a starting place for one way of delivering the unit.
Activities are provided in preparation for the external assessment.

Unit 8: Responding to a Commission

Introduction

Learners should be given an overview of the commissioning process that most independent media producers have to undertake in order to get work for their production company. Explain the importance of working for a client for production companies as well as some of the challenges in doing so. A good way to do this would be to have a local partner (or perhaps someone from your centre) act as a client and set a brief. The group could then discuss how they might analyse and begin to work with this client over the course of the project.

In the sections below, there is an outline of the kinds of activities that would prepare the learners for this external assessment. Essentially, learners are going to be given a client brief and they will need to carry out some research in order to investigate and develop ideas for fulfilling the brief (Part A). Following this, the learners will be required to present their ideas in a variety of forms that follow industry practice and they will be asked questions about their idea in a controlled assessment (Part B). In the activities below, it is suggested that the learners are taken through this process as a group under the supervision of the tutor. For some elements, it will be necessary for the learners to work on their own (such as when they propose their individual solutions to a brief) but there are opportunities throughout for collaborative working. Listening to a range of ideas towards the same brief, for example, may develop learners' skills in justifying what are and are not valid responses and in linking the ideas to the background information.

Topic A – Rationale for ideas in response to a commission

This topic targets each learner's ability to analyse a brief and the information that surrounds it to support their decision making when developing ideas. Typically, media students may be used to working with fewer constraints for their work and the idea of working on limited projects may be new to them. Therefore, learners need to be exposed to real or simulated client briefs that can be supported by information about the service or body that the brief seeks to promote. Representatives from local organisations or internal clients could be invited to lessons to discuss with learners typical commissions that they might launch. Learners could then work in groups to outline the requirements of the client and the limitations of the brief.

● Meeting and interviewing potential live clients would be an excellent way to engage learners in the need to research the background and analyse the constraints of a brief. Learners could meet clients and then conduct research into the subject of the brief in order to develop an understanding of the requirements of the content of the product. Learners could then present their research findings and explain how this has led to specific considerations in their work towards this production.

● You could provide a commissioning aide memoire for learners to use when researching a brief to ensure that they capture their ideas about:

    o target audience, primary and secondary audiences

    o delivery platforms and accessibility for the audience

    o findings from statistical research on the subject matter

    o lists of information used to develop the brief.

- At this stage, the learners will also need to collate information about the client through research, to ensure that they understand the context of the production. Established charities often have extensive information within their public websites, so an exercise in which learners perform research into a charity and then present information back as if they were being commissioned to work for it would serve well here. If possible, working with a local community group with an established identity that can be researched would bring a live scenario into this module. Learners should collate this information about their client and present it back to the group:
  - key messages and strategic priorities of the organisation
  - geographic and demographic scope – who are they attempting to reach
  - how they are funded
  - how they are governed
  - are there any restrictions on their operation
  - what the 'personality' or brand identity of the organisation is.

- In order to prepare for the external assessment, learners will need to be familiar with the process of coming up with ideas quickly and then selecting one for further development based upon the merits of each proposal. One way to prepare learners would be to ask them to individually write a paragraph proposing a solution to a brief given by the tutor. The time taken to create the brief should be limited, as learners will not have a great deal of time in the external assessment to come up with ideas.

- Once learners have written their ideas down, they should share them with the rest of the group and, as a class, have a discussion in order to decide which is the most suitable. Learners must be able to explain why they think some ideas are more suitable than others for a client or brief. The ability to choose between ideas relies on the learners fully understanding the brief and the client.

- A typical workflow for this process could be:
  - meeting with a client (or tutor representing a known body to act as client)
  - establishing a brief for which learners should brainstorm ideas
  - research into client and subject matter
  - analysis of the brief, audience, delivery etc.
  - learners given the task to individually describe how they would make a product to solve the brief
  - solutions are shared with the group
  - strengths and weaknesses of each idea are discussed as a group
  - idea chosen for further development.

- One of the most important aspects of the unit and one which is driven by the needs of the industry is the development of each learner's capacity to explain and justify their decisions to others. Learners should be given opportunities to develop their ability to structure an argument to that is persuasive to others about why their chosen idea towards the brief is valid. The activities above should culminate in each learner writing an evaluation of their idea that links to the brief, the client and the background research that they performed earlier in this unit.

Topic B – Developing a response to the commission

Once learners are clear about what it is that they are producing and why, they need to be able to communicate their solution effectively through pitching ideas and by creating formal proposal documents in line with those used within the media industry.

- During the external assessment, learners will be required to create a pitch of their idea to the client. To prepare for this, learners should develop the ability to briefly outline an idea and list the positive points, using effective, persuasive language. To allow learners to practise this skill, you could give them all the same idea and allocate each learner a short time to pitch it. Learners may engage more with this process if they are able to collaborate on the writing of a pitch (which could form the basis of a project with a local partner or internal client for a live project).

- It will be important to discuss the outcomes of pitch writing in groups so that learners understand and agreed on:
  o appropriate structure
  o appropriate length
  o mode of address
  o language
  o format.

- Each learner will then be required to create a formal proposal document. If possible, you should use existing templates for proposal forms that broadcasters and commissioners use, as well as bidding documentation for funding or grants from organisations, to make the context realistic.

- Throughout the process, learners should consider:
  o appropriate structure
  o length
  o mode of address
  o language
  o format.

Topic C – Operational considerations of the proposal

This topic targets each learner's ability to provide details about the logistical and practical aspects of their response to a brief as well as any limitations placed on the content of their proposed product through regulatory or ethical considerations. After explaining 'Why' and 'What' they are going to produce, in the two previous topics, this section of the unit requires the learners to explain 'How' this will be achieved and what the potential limitations are on the production.

- To prepare for this external assessment, learners need to be ready to provide a range of planning documentation that a client would review before commissioning a producer. One way to get learners to produce these documents efficiently and effectively would be to give them all the same production scenario and ask each of them to provide a realistic production schedule and budgeting sheet for the product. The learners could present these to the group who could then discuss the feasibility of the time and resources allocated to the different production activities. You could then guide the learners in agreeing a realistic and practical plan for production in terms of scheduling, crew hire, equipment hire and reproduction (if applicable). It would be useful for learners who are specialising in a certain sector (for example, video production) to create a series of templates that they could use (perhaps with their own branding and style) in a series of media products.

- Learners will need to consider:
  - contingencies
  - logistics
  - scheduling
  - personnel
  - locations
  - project management (sequencing of production tasks to fulfil the brief).

- Learners also need to be clear about the constraints on producers when working within a particular media sector. Learners may have assets and ideas that they have developed while working on other units of the course that could become the focus of this unit (video production for example). This would give the opportunity for learners to become familiar with the expectations of the video industry regulation and processes.

- Learners would be required to have a good working knowledge of the ASA CAP Code (Advertising Standards Authority Committee for Advertising Practice), for example, if they were going to be providing a print marketing campaign in response to a brief. Learners need to be aware of the requirements of copyright law and the use of material within their responses. The learners should be able to discuss any issues of fairness or other ethical considerations that affect their products.

- Discussing case studies and asking the learners to write about the ethical considerations that are associated with their other production work throughout the course would be an effective way of covering this aspect.

Topic D – Presentation of creative ideas

Within the external assessment, learners will be required to represent their ideas visually using a range of methods. Storyboards, scripts, layouts, navigation maps, audio cue lists or thumbnail sketches may be needed to help the learners explain how their products will tackle the brief from a stylistic point of view. It is important that the learners are fully prepared for the discipline that they are working in and can represent their ideas using the expected information on each format (e.g. timings, camera direction, audio description, cell identifiers, flow arrows and transitions as part of a storyboard).

- You could hold workshops in which learners can develop their ability to represent their ideas visually. One way of doing this would be to give the learners a completed media product and get them to lay out the script or storyboard so that they can learn how the final product can be represented through these documents.

- In addition to practising representing ideas in a visual way, learners need to be able to express themselves in writing in a range of contexts using an appropriate style and mode of address. Writing copy to appeal to teenagers, for example, needs to be in a very different style from that of the proposal document to the client.

- Learners could be given some source material (e.g. a press release) and asked to create articles about it for different audiences and purposes. Each learner could create a writing portfolio of their own work, and professional examples to help them prepare for writing across different styles within the external assessment.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit enables learners to work across the entire gamut of media disciplines, and would support their work in the other areas of this qualification by promoting a professional approach to media production work. In particular, there are links with the following.

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 4 Pre-production Portfolio*
- *Unit 9 App Production*
- *Unit 10 Film Production*
- *Unit 11 Radio Production*
- *Unit 12 Website Production*
- *Unit 13 Digital Games Production*
- *Unit 14 Digital Magazine Production*
- *Unit 15 Advertising Production*
- *Unit 18 Storyboarding for Digital Media*
- *Unit 19 Scriptwriting*
- *Unit 26 Writing Copy*
- *Unit 30 Page Layout and Design for Digital Media*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Chandler H – *The Game Production Handbook, 3rd Revised edition* (Jones and Bartlett 2013) ISBN 9781449688097
  This text gives an overview into the stages of games development, including insights from industry professionals.

- Kindem G – *Introduction to Media Production, 4th edition* (Focal Press, 2009) ISBN 9780240810829
  This is a text book that covers all media sectors and the requirements of producers.

- Stradling L – *Production Management for TV and Film* (Methuen Drama, 2010) ISBN 9781408121801
  This book gives a comprehensive account of the tasks associated with managing a range of TV and film projects.

Websites

- www.bbc.co.uk/dna/filmnetwork/Filmmakingguide
  BBC information about film making.

- www.bectu.co.uk
  Information about roles in the media industries.

- www.celtx.com
  This site provides free pre-production software.

- www.primary-film-focus.co.uk/filmpreproduction.html
  This site gives information about film production techniques.

Unit 9: App Production

Delivery guidance

Approaching the unit

The App Production unit is an introduction to the tools, principles and practices that underlie application development. The aim of the unit is to get learners thinking and coding like an app developer. Programming experience in object oriented programming languages such as Java, C++, Objective C or Python is not essential, as this unit will introduce learners to relevant programming languages. However, a solid foundation in object oriented programming concepts will be highly beneficial to learners throughout the unit and therefore learners should be supported to develop their understanding of the necessary programming concepts.

The focus of the unit is on practical app production, and the teaching of programming languages should not unduly delay learners' practical introduction to building apps. The tools, major concepts and best practices in app development are all taught more effectively through practical exercises involving building apps. Providing learners with the necessary source code (or part of it), templates and code samples (from GitHub for example) are all ways to enable learners to experiment with the tools and processes involved in building apps without becoming frustrated by the programming itself. Each practical exercise should build on the last, introducing new conceptual information in app development to enable learners to gain a deeper understanding of the programming languages and the features, tools and techniques involved in building effective apps for different purposes across different environments.

In order to optimise the learner's workflow, computers should be provided with the necessary software and tools already installed. Although many developers only build apps for Android or iOS, it is envisaged that this unit will introduce learners to processes and practices in app development that are common across each development environment, as well as specific aspects of using the Android and Xcode IDEs.

Delivering the learning aims

Learning aim A covers the conventions of apps and different application environments. It is important for learners to understand the different types of app that are available and their compatibility between platforms and devices. Learners may have considerable background knowledge and experience of particular apps, for example social networking apps, but may be less familiar with productivity, weather or travel apps. Consequently, learners should be given access to a wide variety of different apps, which should be made available through different devices to enable learners to compare the similarities and differences between the same app on different devices and native and web apps.

The analysis of selected apps should go deeper than the UI design to consider the purpose, infrastructure, performance and user experience of the different apps. Studying the style and content of app reviews from online technology magazines, such as littlegreenrobot.co.uk, will provide learners with an insight into the features of apps and common terminology that will help learners to write

their own app reviews, evaluating how effective particular apps are for their audience and purpose.

It is essential that learners understand that apps are currently built in three main ways: using the native programming languages of particular devices, using web technologies or a hybrid of the two. Understanding the different characteristics of each method is an important foundation for the practical development of apps later in the unit. Learners could connect the apps they have been analysing with their development environment and then extend their analysis to the advantages and disadvantages of each environment. Guest speakers, such as local app developers or undergraduates on programming degree courses, would be ideal candidates to explain to learners the most effective aspects of each app environment and where each one is best used.

A starting point for learning aim B would be a programming exercise to introduce learners to coding logic and syntax, classes, objects and methods, functions and the model-view-controller (MVC) design methodology. Learners will need specific tuition in Swift, or an alternative programming language for iOS. Java and JavaScript and a variety of teaching methodologies could be combined to effectively teach the necessary programming concepts for app development. Such methods could include demonstrations, workshops, guest speakers and video tutorials.

Learners will need to work through a series on practical projects in order to develop an understanding of how to build apps in different environments. Starting with simple apps and progressing to apps featuring more complex features and more advanced user interfaces will enable learners to build upon their existing learning at each stage. For example, learners could start with a simple app to generate random values, such as colours and countries, and progress to an adventure story or playlist app. Learners should be given experience of building apps for iOS, Android and the web, although the number and nature of the projects may vary depending upon the learners and the available resources. It may also be a useful learning exercise for learners to respond to the same creative brief in two different development environments, in order to evaluate the similarities and differences between them.

Learners could be supported by means of the provision of templates, code samples and partial or full source code to experiment with in projects. This experimental approach could be extended through activities designed to develop the complexity, functionality and design of the apps.

Learning aim C covers the production of an app for a specific audience and purpose. Learners should be given a mock creative brief, for example to produce a quiz app for seventeen year olds who are learning to drive, in order to engage fully in the app development process. Working in pairs or small groups will provide learners with on-going peer support and evaluation. Learners should constantly review their progress and suggest possible improvements.

Learners should be able to select the most appropriate development environment to build the quiz app. The majority of the 60 guided learning hours should be spend exploring developing frameworks (learning aim B) to enable learners to develop the confidence, skills and understanding to develop, test and refine the app. Adding comments to the code will enable learners to explain how the programming works. The final step in the creative process is to record the process of testing the app for bugs, device and browser compatibility, application security, performance and usability.

Learning aim	Key content areas	Recommended assessment approach
A Understand apps and application environments	**A1** Conventions of apps **A2** Characteristics of native app development **A3** Characteristics of web app development **A4** Characteristics of hybrid app development	A technology blog comparing how different apps adapt typical features for a specific audience and purpose and evaluating the effectiveness of native, web and hybrid application environments. The evidence can be presented in any suitable format, e.g. narrated screen recordings, annotated illustrations, written analysis, audio/video recordings.
B Explore development frameworks	**B1** Using development frameworks to build apps **B2** Understanding relevant programming languages	A record of the process of experimenting with different development frameworks and writing, editing and adapting at least two different programming languages, e.g. annotated screen shots, screen recordings or production logs/blogs of how frameworks were used and programming languages adopted.
C Produce an app for a specific audience and purpose	**C1** Planning the app **C2** Developing the app **C3** Debugging and testing	An app produced for a specific audience and purpose. A record of the development of the app, e.g. annotated screen shots, screen recordings, audio/video recordings, a production log/blog. Evidence of debugging and testing the app.

Assessment guidance

The blog produced in response to learning aim A, should evaluate the effectiveness of native, web and hybrid application environments through a comparative analysis of the design and functionality of Android, iOS and web apps, built for different audiences and purposes. The evidence could be presented in any suitable format, e.g. narrated screen recordings, annotated screen shots or written analyses.

In response to learning aim B, it is not sufficient to become proficient in just one programming language, as learners need to combine coding techniques in different programming languages with the features of different development frameworks and environments in order to design, run and test app functionality. Appropriate programming languages include Java for Android, Swift for iOS and JavaScript for web apps. Learners will need to provide suitable evidence of their development work, evaluate the outcomes and suggest possible improvements. The evidence for assessment could include annotated screen shots, screen recordings or a production log/blog showing how coding tools and techniques were adapted for a specific audience and purpose.

Learning aim C requires learners to produce evidence that they have designed, developed and tested a functioning app. Evidence should be provided that the app runs as intended on a specific device on the chosen platform. The app should be designed and developed to meet the needs of a specific audience and purpose so as to provide an effective user experience. A suitable record of the development process is required, including evidence of debugging and testing the app.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 9: App Production

Introduction

To introduce learners to the unit, apps should be made available through web browsers and the App, Windows and Google Play Stores. This will enable learners to experience a wide variety of apps for different audiences and purposes. You should make the apps available through different devices to enable learners to experience the differences between the way in which apps perform on Apple, Windows and Android devices.

A wide variety of apps should be selected, including apps from less familiar categories such as food and drink, travel and productivity. Awards websites, such as webbyawards.com, could also be used to highlight best practice in streaming audio and video, user experience, user interface design and functionality.

Learning aim A – Understand apps and application environments

Learners are building up to the following assessment: create a technology blog on modern apps and application environments. The blog should evaluate:

- o the way that different types of app adapt common features to serve a specific audience and purpose
- o the effectiveness of native, web and hybrid application environments.

- Working in groups, each learner could choose a different app from the same category to research and analyse. This activity could be extended to learners writing reviews of apps in the style of an online technology magazine, to:

  - o highlight the similarities and differences between apps

  - o evaluate the effectiveness of different apps for audience and purpose

  - o share a common terminology

  - o comment on the characteristics of the app (integrated development environments, tools and widgets used to create the interface, accessibility tools, app store distribution, look and feel consistency, platform available on, secure file storage etc).

- Analysing the functionality and design of apps from the different development environments, hearing guest speakers (such as App Developers or undergraduates from Programming Degree Courses) and selecting/justifying the choice of an app development environment in response to a creative brief will enable learners to explore:

  - o the characteristics of each application environment

  - o the advantages and disadvantages of each

  - o when each environment is most effective.

- Learners should consider the ways in which their research will inform their own app productions in the following learning aims.

Learning aim B – Explore app development frameworks

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of apps that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Learners are building up to the following assessment. In response to a creative brief, produce:

- o a record of your experimentation with different development frameworks

- o a record of writing, editing and adapting at least two programming languages to investigate and justify which application environment to adopt.

- Learners could start with an introductory programming exercise and coding workshop to introduce:

  - o coding logic and syntax

  - o programming concepts, such as classes, objects and methods, common objects and frameworks and the MVC design methodology.

- Teacher demonstrations, guest speakers, workshops and video tutorials can all be used to introduce coding guidelines, tools and libraries, and, more specifically:

  - o Swift (or another iOS programming language), Java and JavaScript

  - o the XCode and Android Studio IDEs

  - o prototyping with frameworks, such as Foundation for Apps

  - o frameworks for building cross-platform mobile apps using HTML5, CSS and JavaScript, e.g. PhoneGap

  - o the process of building a basic app in native app environments

  - o the tools required to build apps

  - o how to experiment with the code to develop more advanced features

  - o how to simulate/emulate apps on a device

  - o how to test and debug apps

  - o programming languages (basic syntax, data types, functions, properties, classes and structures, working with objects, statements and loops, models, protocols and extensions, transitions and transformations, media queries etc.).

- It is clear that building apps in the different development environments is the most effective way for learners to develop the necessary skills, knowledge and understanding for developing apps.

- Projects should include building apps for different audiences and purposes and each project should progressively introduce more challenging design and development concepts. For example, learners can start with a simple app to generate random values (colours, countries, numbers etc.) and progress to apps with more complex features and responsive user interfaces, such as playlist apps.

- Learning can be differentiated within each project through the provision of templates, source code (or part of the source code) to experiment with and extension activities to extend the capabilities of each app.

Learning aim C – Produce an app for a specific audience and purpose

Learners are building up to the following assessment: produce an app for a specific audience and purpose. This should include planning documentation, a record of the development of the app and a record of the debugging and testing undertaken.

- Using a mock brief for a quiz app as a stimulus, learners should engage in the various stages of planning an app, including:

  - o defining the audience and purpose

  - o summarising the functionality, key features and user behaviours to be included in the app

- o preparing a technical specification
- o designing a layout (interface design, sketches or style boards, wireframing and/or prototyping)
- o debugging and testing.

- To develop the app, learners should be encouraged to select the most appropriate development environment. Working in pairs, learners will be able to support each other to build, run and refine the app. On-going peer assessment is one method to ensure that the app continues to improve throughout the app development process.

- Adding comments to the code individually will enable learners to explain their creative decisions and how the coding operates the app.

- The final stage in the project lifecycle is to test and debug the app. Learners should record the findings of bug testing, device and browser compatibility, application security, performance and usability testing and act on the results.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 12: Website Production*

- *Unit 30: Page Layout and Design for Digital Media*

- *Unit 31: Coding for Web-based Media*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Hellman E – *Android Programming: Pushing the Limits* (John Wiley & Sons, 2013) ISBN 978-1-1187-173-70
  This book covers the development environment, efficient Java Code for Android, getting the most out of Components, Android User Experience and Interface Design and writing automated tests.

- Hollemans M – *The iOS Apprentice: Beginning iOS Development with Swift 2*, 4th Edition (Razeware LLC, 2015) ISBN 978-1-9428-780-87
  This book covers how to build apps through a series of step-by-step tutorials. Each tutorial is more advanced and includes a game, to-do list app, a location-aware app

- Lee W-M – *Beginning Android 4 Application Development* (Wrox, 2012) ISBN 9781118199541
  Covering activities, fragments and intents, designing a user interface with views, displaying pictures and menus with views, data persistence and publishing Android applications.

- – Warren T – *IOS Programming for Beginners: The Simple Guide to Learning IOS Programming Fast!* (CreateSpace Independent Publishing Platform, 2015) ISBN 9781517080464
  This book covers the anatomy of an app, developing a basic app and essential Swift concepts.

Magazines

- net

- Web Designer

These two magazines are the leading authorities for web creatives and designers with expert guides covering next-gen technologies such as HTML5, CSS3, jQuery, WordPress and mobile apps.

Websites

- www.buildingwebapps.com – This website contains resources for web application developers, with a focus on the Ruby on Rails platform.

- www.developer.android.com – This website contains code samples and tutorials for developing Android apps, such as Android for Beginners for learners with no previous experience of Java.

- www.developer.apple.com – This website contains news, tools and resources for creating apps for Mac, iPhone, iPad, Apple watch and Apple TV.

- www.w3schools.com (World Wide Web Consortium) – This website covers tutorials, references and examples of JavaScript and jQuery Mobile.

Unit 10: Film Production (Fiction)

Delivery guidance

Approaching the unit

In this unit, learners will have an exciting opportunity to obtain the skills and knowledge to allow them to become narrative filmmakers. Often learners will arrive at this unit with a desire to replicate their favourite type of feature-length film and this will need careful discouragement from tutors if the ambitions are unrealistic (e.g. attempting to create a blockbuster sci-fi action movie without the resources).

In terms of scale, it would be useful to use creative short films as stimuli, in order to inspire learners to create their own productions that they can then present in showreels, enter into competitions and festivals and share instantly through video streaming services.

Learners will need to be able to analyse products in terms of their purpose, genre and audience, and then propose their own production. The learners will then need to produce appropriate material (given their specifications in the proposal) and apply post-production techniques to create a finished film that adheres to genre conventions.

Good quality outcomes can be achieved with some quite modest resources. The use of a DSLR camera and lens kit (that supports HD video), a tripod, a solid-state audio recorder and external microphone would enable learners to produce high-quality near-professional-level footage if used correctly. Professional-level software can also be obtained relatively cheaply (a popular suite of professional-level production software can be subscribed to for around £15 per month).

Delivering the learning aims

For learning aim A, learners will need to understand the codes and conventions of fictional film production. This is an important section of the unit because it should help the learners to define appropriate projects to work on in the later stages of the unit. Feature-length dramas will be popular with learners and may serve as a starting point but it is necessary for learners to set themselves achievable goals for the production phase of this unit. Learners can be given a selection of short films to analyse and categorise in terms of genre and purpose, and the findings of this research should be shared with the group so that the class is exposed to a wide range of examples. Short films make it easier to achieve this (due to their duration).

Learners may be able to share their analysis of the short films by creating a voice-over recording or commentary and sharing this with other learners in the group to create an online learning forum. (Most video streaming services offer free accounts that would enable this.) Spoken commentary is just as valid as written analysis for the purposes of the assessment of this learning aim. To achieve the highest grades for this learning aim, learners should be able to analyse texts from at least two separate genres. In all of their analyses, it is important that learners refer to the impact of the filmmaking upon the audience through the relationship between the audience and filmmaker and the expectations built up by the genre. Learners should, in particular, consider what

the analysis taught them to consider when producing their own films in learning aim B.

For learning aim B learners will need to produce material for a fiction film of a specified genre. This learning aim follows on from learning aim A in which learners analysed films in order to inform their own film production. In this learning aim, learners need to demonstrate that they can manage the filming process and acquire high-quality footage that is fit for a particular purpose (an identified genre or audience). Learners will typically work in groups on film making projects but these will need to be organised so that every learner can have an identifiable scene that they have directed or filmed. Care will need to be taken to achieve this without disrupting the overall style of a film (if two scenes are made in hugely contrasting styles, for example) but it is important that every learner has an opportunity to demonstrate their ability in this respect.

This learning aim begins with an agreed proposal to turn into a short film. It is important that the tutor manages and approves films to be put into production carefully to ensure that they can be measured against a particular purpose or genre, are realistic and that they give sufficient opportunities to each learner.

Learners would benefit from tutor-led workshops that demonstrate the correct use of the chosen recording equipment to enable learners to use manual controls and create high-quality video and audio footage. Tutors also need to ensure that learners are able to demonstrate the management of their section of the film through appropriate production paperwork. Learners should keep log books or web logs of how they progress during the filming and capture stage of the project and these will provide excellent evidence of their management and skills development through this learning aim.

For learning aim C, learners need to be able to apply post-production techniques to a fictional film using the codes and conventions of a specified genre. In this section, learners should be able to work individually on their own versions of a final edit of their film (through the sharing of the footage). This will ensure that you can accurately assess every learner's ability to assemble the components to create a final short film. Learners need to be given the opportunity to edit their footage to industry conventions or with an awareness of how their editing techniques might subvert them. Throughout the learning aim, learners should maintain a log, weblog or a director's commentary, in which they explain their approach to the film making and how it links to the proposed genre or purpose. Learners should use post-production software to create a final version of their film with titles and music or sound effects, where appropriate, and this should be exported to a format that can be shown to others. Many editing packages now have preset export controls that enable direct conversion into the specifications of popular video sharing sites. This would give learners an easy method of sharing their videos with an audience and obtaining a direct response.

Learning aim	Key content areas	Recommended assessment approach
A Understand codes and conventions of fictional film production	**A1** Narrative filmmaking – purposes, formats, narrative structures and visual storytelling **A2** Genre, audience and critical analysis of texts	Analysis of a range of media texts and their use of narrative. Micro-analysis of visual storytelling for a specific genre. Analysis of formats and structural conventions.
B Produce material for a fictional film of a specified genre	**B1** Filming techniques **B2** Sourcing material for film production **B3** Production management	Image and sound footage. Camera sheets and sound sheets of logged material. Image and sound files collated into scenes and shots. Logged copyright free music and effects.
C Apply post-production techniques to a fictional film utilising codes and conventions of a specified genre	**C1** Post-production techniques **C2** Realisation of the production in relation to genre and conventions **C3** Music, sound effects and titles **C4** Final Cut	Witness statement of post-production process. Final edited short genre film or film extract.

Assessment guidance

Assessment for learning aim A could be in the traditional format of written analyses of films, but there are many ways in which learners can generate evidence of their understanding. Learners can present short sections of films or entire short films and hold a seminar with peers in which they discuss their analyses (tutors could make recordings of these presentations for assessment). Alternatively, learners could provide voiced-over versions of the films, in which they pause footage and explain their analysis with the image still on screen. More confident learners could make a film in which they discuss a movie, which could, perhaps, be filmed in the style or typical locations of the original text, intercut with scenes. Learners should provide analyses of texts from at least two genres. As there is a clear link between learning aims A and B, learners should discuss the ways in which their analyses of existing films will inform their own film making.

For learning aims B and C there is a requirement that the footage acquired and final film should be appropriate to the genre and audience of the proposed project. It is essential, therefore, that the learners start with a proposed film that is from an identifiable genre with a specified audience and purpose.

Learning aim B requires evidence of learners being able to manage their section of the production (their scene from the film). Witness statements are an efficient method of providing supportive evidence for this (but should not be used on their own). In addition, tutors can encourage the learners to provide blogs or diaries about the progress of their production.

Within learning aim C, there needs to be some assessment of whether the final piece is suitable for the given proposal. Director's commentary will be useful again here, as it gives each learner an opportunity to demonstrate their ability to justify how their product meets the requirements of the proposal while discussing their work.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 10: Film Production (Fiction)

Introduction

This unit is about giving learners the opportunity to become purposeful filmmakers through the analysis of a range of existing products, and by playing a significant role in the management of a film production and completing a finished edit of a film that is fit for purpose and ready to be shared with an audience. If is possible to run this project-based unit by giving the productions a real sense of purpose and audience, it would benefit the learners and concentrate the minds of those who aspire to be filmmakers.

- Running the project to coincide with a short film festival (for which the student productions may be entered) would give learners the experience of being exposed to a wide range of other productions.

- Liaising with a regional digital TV station (Ofcom have recently granted digital broadcasting licences to many small regional TV stations who have a requirement for content) which may be able to broadcast learners' productions would ensure that learners are working towards professional broadcast standards.

- Creating an online forum for the learners' work through their signing up for YouTube or Vimeo accounts and channels is relatively easy to achieve (and free) and can generate an audience and an efficient method of feedback for the learners. (Links to online survey services such as Survey Monkey can be posted in the video descriptions to help the learners collect feedback from their audience.)

- For learning aim B, the learners need to be able to demonstrate their ability to produce and manage significant sections of a film, so it is strongly recommended that each learner works within a small group (of three or four learners) and each has responsibility for a particular scene (managing the logistics for this location as well as directing the scene) in a short film production (of around ten minutes in duration).

Learning aim A – Understand codes and conventions of fictional film production

This learning aim gives learners the opportunity to investigate a range of fiction film production and, in particular, the relationship between the film's genre, its audience and the filmmaker. Filmmakers often use the audience's expectation of a film because of its genre to either gratify the viewer (giving them what they would expect from a particular genre) or subvert genre (through using genre conventions to exaggerate an audience reaction when the film breaks with convention). In order to achieve this themselves, learners need to understand how fiction films use genre conventions to affect the audience.

- All learners could watch and discuss a short film in class and then be required to produce an essay on the purpose, the audience and how it fits or breaks with genre conventions in terms of character, narrative structure, stylistic codes, iconography etc.

- Following this exercise, each learner could be given a different film, from another genre, and then be required to make a commentary to dub onto the film (perhaps freezing the frame at different points to create an analysis of the text).

- Learners could then share their analysed films online (with and without commentaries) and present them to the class. Learners could then be asked to write up their analysis of the second short film.

- In particular, learners should discuss the ways in which their analyses will inform their own film production in the next learning aim.

Learning aim B – Produce material for a fictional film of a specified genre

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of films that they carried out in the first learning aim in order to inform their own film productions. As such, you should take a holistic approach to the delivery of these learning aims. This learning aim should start with a proposal from each learner in which they give an outline of what they are going to produce. The proposal itself is not assessed in this unit although it is an important document, as it is from this that the appropriateness of the footage (produced in this learning aim) and the final product (completed in learning aim C) will be judged.

- Learners should have been inspired by the range of short fiction films that they dealt with in learning aim A so should each be given the opportunity to propose a production including reference to:

  o genre

  o target audience

  o purpose of the production

  o similar existing productions

  o style and content

  o format.

- Learners could perhaps vote for ideas but it is important, at this stage, that you only sanction feasible projects or those that have the scope to give learners the opportunity to pre-produce, manage and produce footage for a particular scene.

- Once learners are established in groups, the project needs to be broken into component scenes. One way of achieving this is to break the film into three or for locations. This would allow individual learners to provide evidence of having performed location planning, risk assessments, booking equipment, organising cast and crew for the production days and gaining permissions. In addition, storyboards, shot lists, shooting schedules and scripts need to be finalised by each learner for their scene.

- You should lead a workshop on and provide examples of the typical pre-production activities that are required to put a short film into production. Learners should be provided with the means to show their organisation and management of their section of the production.

- From this stage, learners should keep a production diary or web log that records their progress through the pre-production, production and post-production stages of the film making process. This will provide evidence of their management of the project.

- Tutor-led workshops would be useful at this point to familiarise learners with protocols for the production stage of a film. There is a direct link here to *Unit 20: Single Camera Techniques* in which the learners develop an understanding of the protocols for filming using single camcorders and the manual functions of cameras, as well as ways of mounting cameras and camera movements.

- Learners should then undertake production activities. In order to achieve this, it is recommended that learners have access to sufficient portable filming equipment.

- Tutor observation records of the learners' ability to undertake production activities would support the assessment for this learning aim.

Learning aim C – Apply post-production techniques to a fictional film utilising codes and conventions of a specified genre

Within this learning aim, learners are required to demonstrate their ability to apply post-production techniques to a film production so as to end up with a final film project that is ready to share with an audience.

- The ability to evaluate a final product will not be assessed within this unit, but a commentary on the product will certainly enable learners to demonstrate to what extent the product is appropriate for the given requirements of the original proposal in terms of genre, target audience and purpose (which is an assessed component for this learning aim).

- Traditionally, when learners move into the post-production phase of a project, they work collaboratively within the edit with, typically, one or two learners taking control over the process. This confounds assessment of individual learners as it becomes difficult to ascertain which learner from the group has made which editing decisions during the process. If sufficient resources are available, it would be advisable for learners to adopt a work-flow pattern in which they work collaboratively to review the footage and capture it into an editing application. Following this, separate copies of the project could be made and transferred to different work stations so that each learner can edit their version of the final film separately. Some editing software packages allow the captured footage to be 'transcoded' into an offline format (lower resolution version of the footage) that can be easily edited on less powerful computers remotely and then they allow the offline editing decisions (in the form of a sequence timeline) to be connected back up to the high-quality original footage to create a version of the final production. Adopting this practice would enable all learners to experience editing their film individually, without the need for all of them to have access to a high-end editing workstation.

- Offline can be used to create a 'cut' sequence of a film, but some post- production activities should be performed online (such as grading and colour correction) which may mean that the groups need to work collaboratively in this final stage of the project.

- The final productions should be completed with titles and then exported to a format for sharing. It would be useful for learners to have the 'delivery' stage of this project as a focus throughout the process. A film festival, local digital broadcaster, or online forum for the final film to be exhibited may well motivate learners to meet deadlines. The exact specifications of the delivery format should determine how learners export their final versions of the film at the end of the project.

- Learners should add to their production diaries or web logs throughout this stage of the project. Tutor observation records of each learner's ability to engage in post-production activities would support the assessment evidence for this learning aim.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

This unit requires learners to apply film production techniques within a short fiction film project. There are links to most of the moving image based units that go into film production techniques in more depth.

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 4 Pre-production Portfolio*
- *Unit 18 Storyboarding for Digital Media*
- *Unit 19 Scriptwriting*
- *Unit 20 Single Camera Techniques*
- *Unit 21 Film Editing*
- *Unit 36 Lighting Techniques*
- *Unit 37 Visual Effects*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Kindem G – *Introduction to Media Production*, *4th edition* (Focal Press, 2009) ISBN 9780240810829
  This is a text book that covers all media sectors and the requirements of producers.

- Stradling L – *Production Management for TV and Film* (Methuen Drama, 2010) ISBN 9781408121801
  This book gives a comprehensive account of the tasks associated with managing a range of TV and film projects.

Websites

- www.bbc.co.uk/dna/filmnetwork/Filmmakingguide
  BBC information about film making.

- www.bectu.co.uk – *BECTU Broadcasters Union*
  Information about roles in the media industry.

- www.celtx.com
  Free pre-production software

- www.primary-film-focus.co.uk/filmpreproduction.html
  Information about film production techniques.

- http://www.theguardian.com/tv-and-radio/interactive/2013/sep/25/reader-tv-pitch/review
  The Guardian examples of film pitch and proposals.

Unit 11: Radio Production (Fiction)

Delivery guidance

Approaching the unit

Fictional radio programmes are very much like fictional television programmes or movies in structure and form, except that the listener has to rely on their imagination to create the visual images that accompany the sounds, dialogue music and silences. This unit first examines the nature of the radio-fiction programme in very much the same way as a film studies student might look at film. Having understood structure and form, learners gather the necessary assets and turn them into a fictional radio programme, or part of one, depending on running time.

Radio fiction and similar fictional audio products, such as audio books that use direct dramatised dialogue) are all in the same 'genre'. Radio drama, plays, radio soaps and situation comedies are all similar in that they almost always involve a fictional script read by voice actors.

The radio codes referred to in the unit are the radio studies equivalent of film codes for film studies. The codes are used in analysis of radio-fiction programmes. They are: dialogue, music, sounds and silence.

Delivering the learning aims

Learning aim A is about understanding the codes and conventions of fictional radio programme genres and is split into three main areas: A1 Fictional genres, A2 Codes and conventions and A3 Audiences.

A1 Fictional genres covers radio plays, drama, soaps, situation comedy and associated structures. Learners will probably not have listened to a lot of radio fiction or plays. They will have seen plays and dramas on television but they may not have heard them on radio. It may be difficult to engage learners with the notion of sound only because they are so inundated with visual imagery in everyday life. A good way to start engaging learners with sound-only fiction, is for them to take a look at the BBC Radio programme schedules, guided by you. Raise their awareness of the number of programmes available in every genre by flicking through the online schedule. Focus on the output of BBC Radio 2, Radio 3, Radio 4 and Radio 4 Extra, looking at the different genres and variety of programmes available on each. Show them how BBC iPlayer Radio enables users to download programmes in MP3 format and retain them for all time. Users can also convert downloads to WAV or AIFF and import them into audio editing software to make clips. These are useful teaching examples of particular effects or styles of content.

You should demonstrate to learners the differences between moving-image fiction programmes and radio-fiction programmes. In a moving-image fiction programme, the viewer is dependent on the visual image to convey information that the dialogue does not include. However, in radio fiction the listener has to be told what 'stage business' is taking place by having any actions included in the script. For example, on radio, if the actor is making a meal while the scene unfolds, this would be conveyed to the listener by including in the dialogue such script as 'Just pass me that bowl of flour'. You should explain to learners that the

codes used in radio are the equivalent of the codes in film and serve the same purpose. Help them to understand that, although radio has no visual codes as such, visual imagery is prompted into the listener's mind using aural codes. The dialogue will need to convey the way the speaker is feeling according to the manner of delivery. Explain that excellent use is made of sound effects in most fiction programmes to convey things like location, time of day/night and so on.

Play samples of these types of use of sound, so that learners can associate with your points. Play a clip of a horror genre drama that uses music to set the scene and to demonstrate the power of music to create mood in a fiction programme rather than simply being used as 'playing in music'. Finally, play some clips that have two scenes that demonstrate the use of silence as a scene changer or the passage of time, drawing learner's attention to whether there is a fade to silence or a cut to silence before going into the next scene. Get a Q&A session going to debate the relative merits of these effects.

Explain to learners that conventions used in radio fiction are very similar to those used in visual fiction. Play clips for each identified convention and get learners to identify them by completing a pro forma test sheet. Get learners to use their own time to search for examples of the use of codes and conventions used in particular programmes.

For A3, you should introduce the notion of socio-economic groupings and listening according to gender, age, geographic location and so on. Get learners to ask older parents and older friends and family members about their listening habits.

For learning aim B, learners should source the necessary materials or 'assets' they will need in order to produce the fictional product required in learning aim C. This learning aim follows on from learning aim A in which learners analysed radio programmes in order to inform their own radio production. Learning aim A should have elicited some ideas for the type of fiction programme that your learners will want to produce. In learning aim B, show learners how to source and select the most appropriate assets to meet their needs. They will need to script a key asset but, given the limited guided learning hours, it is unlikely that learners will have time to write one from scratch. Prewritten scripts can be sourced, and if they are not specifically scripts for radio, they can be adapted. A group could adapt a script, each being in charge of a different number of pages and identifying their own contribution throughout. Learners working in groups is an acceptable practice but each learner must submit his or her own contribution. This means that a joint piece in which the individual contribution cannot be identified by the assessor will not be eligible for grading.

Provide learners with information about sourcing from music libraries and sound effects libraries and you will need to give a presentation on copyright law and how it applies to the use of assets under licence. Ensure that learners understand the financial implications of using 'mainstream' media rather than pastiche or 'soundalike' sorts of music clips. Encourage learners to seek permissions for the use of assets.

Explain to learners that they are expected to record dialogue rather than lift it from another pre-recorded source. Learners are not expected to voice the words, but to act as recording engineers and to record and direct the artists (or 'talent') in how to deliver the dialogue. Learners also need to know how to create useable rehearsal and call sheets, how to take logging, and how to use time code on recordings. They also need to create title and credit sequences.

In learning aim C, learners will need to start assembling the finished product. Demonstrate the task of assembling the assets on a timeline using example assets. You will need sufficient assets to put together a radio-fiction clip that

includes a title sequence, recorded dialogue, sound effects, ambient background, mood music and credits. Demonstrate assembly techniques, providing commentary as you go, and prompt learners to list each specific stage in the process, along with its attendant problems and workarounds. Each completed piece should be exported from the application into a format that can be consumed. Suitable formats are a podcast MP3, a CD CDDA format, or any domestic listening format for mobile phone, tablet etc. The specification states BWAV format. This is specifically for broadcast over the airwaves by, for example, the BBC or a commercial or community radio station. Realistically, a copy in each format would be required.

When deciding on the running time, bear in mind that most radio-fiction programmes are 13.5 minutes to fit a 15 minute slot, 27.5 minutes to fit a 30 minute slot, 43.5 minutes to fill a 45 minute slot and 57.5 minutes to fill a 60 minute slot. This is to take account of trails, announcements, and other broadcast clips that are nothing to do with the programme in the middle.

You could put learners into groups in order to achieve appropriate running times within the 90 guided learning hours of the unit. For example, three learners working together on individual components could produce a 13.5 minute programme.

Learning aim	Key content areas	Recommended assessment approach
A Understand the codes and conventions of fictional radio programme genres	**A1** Fictional genres **A2** Codes and conventions **A3** Audiences	A written report or presentation evaluating different fictional radio programme genres in terms of their codes, conventions and audience expectations.
B Produce material in preparation for the production of a fictional radio programme of a recognised genre	**B1** Source and select pre-recorded material and script **B2** Recording dialogue **B3** Recording titles and credits	Recordings of raw material: scripted dialogue, titles and credits. Log of pre-recorded material: production music, pre-recorded sound effects and ambient sound suitable for the genre.
C Create a fictional radio programme, complying with the codes and conventions of a fictional radio genre	**C1** Post-production techniques	Witness statement or audio visual recording of part of the mixing process. Complete edited and mixed recording of a finished fictional radio programme/podcast, including dialogue, music, silence and effects.

Assessment guidance

This unit is internally assessed by means of assignments set by the tutor. The maximum number of assignments is three, so it is suggested that each assignment should cover one learning aim. Learning aims should not be split across two assignments.

Evidence for the assessment of this unit must be original and each learner's own work. Where working in groups, each learner must submit an original and individual piece of work even if the final artefact is a collaborative piece. Do not allow learners to proceed to the next learning aim until the work is submitted for the current learning aim. Planning must not be retrospective, so must be submitted upfront. Evidence of understanding of learning aim A should be demonstrated prior to allowing progress to learning aim B. Similarly with learning aim B before progress to learning aim C. If presented to an audience, the report for learning aim A must be video-recorded for IV/SV purposes. Assets for learning aim B will be a mix of material sourced from third parties and sound dialogue recorded by the learner. The learner must also have rough edited the material ready to fit the timeline of the final mixed piece. Evidence for learning aim C will be the completed fiction product, normalised and exported to an appropriate format. The assembly timeline and project folder will also be required so that the mix can be examined visually.

The grade achieved for each learning aim will depend on the level of skill and complexity shown. For example, for learning aim A, learners will need to explain, for a merit they will need to compare and analyse and, for a distinction, they will need to evaluate.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 11: Radio Production (Fiction)

Introduction

This unit is designed to provide learners with a practical approach to making a fiction radio programme. It requires learners to understand the nature and content of fiction radio programmes and to be able to apply that understanding to making a programme. Learners are also required to demonstrate technical skills in recording sound using microphones and appropriate recording software. They need to edit and mix the recorded sounds into a recognisable fictional genre radio programme (or part thereof) Three learners working as a production team will be able to produce three times as much material as a single learner. Encourage learners to work in teams so that the running time of the final product accurately resembles that of real radio output. Team working also more accurately reproduces the constraints and opportunities that are present in the industry.

The unit comprises three learning aims. Learning aim A embodies the knowledge that learners must apply to the programme content prior to production. This covers programme type (genre), structure (codes and conventions) and the expectations of audience. In learning aim B, learners will gather assets (sound effects, ambience, mood music) and record the dialogue. In learning aim C, learners will bring together all of the assets to make the programme. Therefore, they must have completed all their planning in advance. Their planning must cover all the necessary requirements for the finished product to be produced. **Important:** Do not issue the assignment briefs for each learning aim until the teaching and learning component has been completed. All demonstrations and practices should be completed using different material to that which will be assessed.

Learning aim A – Understand the codes and conventions of fictional radio programme genres

Get learners to listen to some radio fiction, so that they will understand the tasks they must fulfil to make a radio fiction product.

- It will be found, on radio, that actors will often 'overact' or overcompensate for the fact that they are not being seen.

- Demonstrate this by playing to the class short clips of scenes (not full length programmes yet) from different fictional radio programmes (e.g. BBC Radio 4 afternoon drama 14:15 to 15:00 Monday to Friday).

- Ask learners to develop a questionnaire with relevant questions about radio listening habits, the first question being: 'Do you listen to radio?' then 'What do you listen to – music, speech, BBC, independent stations etc. The idea is to eliminate quickly anyone who does not listen to fiction.

- **Genres:** Introduce the class to radio-fiction genres. Get learners to explore the BBC iPlayer, listening to clips of different genres of fiction programme from BBC Radio 2, 3, 4 and 4 Extra. You might like to obtain copies of *Radio Times* because it is easier to track programmes on paper than on the screen. Mark the ones that best demonstrate examples of genres.

- **Codes and conventions:** Introduce learners to the notion of radio codes. Explain the purposes of each of the radio codes, showing examples of how they work. Ask the class to listen to samples of clips gathered (either by you or by them under

your direction) and identify ways in which codes are used. There are chapters about radio codes in Andrew Crissel's book and in Martin Shingler's book (see Resources).

- Play a clip from a TV drama in sound only. Ask learners, while listening to the sound-only clip, to try to make sense of the stage business that is going on in the clip and to write down what they think is happening. Then play the clip with sound and vision and get the learners to check whether their interpretation of the action is correct. Hold a Q&A session to confirm.

  o The idea is to demonstrate that, in a moving-image fiction programme, the viewer is dependent on the visual image to convey the information that the dialogue does not include.

- **Audience:** Start a debate in class entitled 'Who listens to what?' Talk about the genres you watch in films. Hold a Q&A session on the demographic of visual-image fiction consumption. Build up a class picture of which socio-economic groups watch which TV films, cinema movies etc. in terms of age, gender or geographic location.

- Put these questions to learners: 'If these genres were available without visuals and only in sound, how would they work? How would you convey to the audience the actions taking place as the dialogue unfolds?'

- Learners will know that the primary audience for radio fiction is not themselves, because they are new to this medium and probably only listen to music on radio or perhaps do not listen to radio at all. You will need to jump this hurdle early on in the unit delivery by teasing them with well-selected clips of the type of radio content you want to interest them in.

- You would be well rewarded by playing a clip from Orson Welles's original radio broadcast of *War of the Worlds*, or selecting some clips from 'whodunnits' that are widely available on CD. Select content that is dramatic, exciting and likely to arouse interest in your learners, and which focuses on different types of audiences.

- You should introduce the notion of socio-economic groupings and listening according to gender, age and geographic location.

- Get learners to compare and contrast fiction types, e.g. drama, soap opera, sitcom.

- Introduce radio programmes of similar genre, to comparable moving-image programmes and get learners to begin to relate to radio in the same way they relate to moving image.

- In particular, learners should consider the ways in which their research will inform their own radio programmes in the next learning aim.

- You could issue the assignment for learning aim A immediately after the teaching and learning for this learning aim, but you may wish to wait until the learners have completed learning aim B and issue one assessment that covers both learning aims.

Learning aim B – Produce material in preparation for the production of a fictional radio programme of a recognised genre

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of radio programmes that they carried out in the first learning aim in order to inform their own radio productions. As such, you should take a holistic approach to the delivery of these learning aims. Assume that learners will need to be given instructions on how to source pre-recorded sound material (effects, ambience, mood music) and in how to record speech/dialogue to an appropriate standard.

- **Pre-recorded content:** Explain to learners that use of pre-recorded music (or production music as it is known) is normal in the making of radio fiction, due to budget limitations and time constraints. It is strictly controlled by copyright, so they are not at liberty to simply use whatever they want, particularly popular tracks from charts etc.

- There are a number of recorded music and sound effects libraries that allow access to their recordings for the purpose of finding the best material for use in making programmes. Hold a class demonstration to show how to do this is. UPPM is one of the largest and allows such access, although any production music library will suffice.

    o Demonstrate in class how to navigate a production music library and get learners to do the same on their computers. This will include downloading tracks to the computer in an appropriate file format (WAV or AIFF).

    o Sound effects libraries are also available from which to download. 'Dewolfe' is one example. Demonstrate this in a class and get learners to do so as well, downloading in suitable file formats (WAV or AIFF).

- Explain the working of copyright law in the UK and the relationships of the copyright royalties collecting agency (PRS, MCPS, PPL), the manner in which they issue licences for use, and the costs of different uses of production music (for example for radio commercials, radio plays, TV commercials, TV plays or cinema).

    o Learners will need to practise downloading music/effects and checking the royalty licence costs.

- Introduce the PRS for Music licensing company, emphasising the difference between actual ownership of copyright (which is enshrined in English law as being vested in the originator of the work at the point of origination).

- Also introduce the manner in which the originator can prove copyright (by posting the work to his/herself via special delivery and keeping the evidence sealed with the date of posting clearly visible, or depositing at a bank safety deposit box or with a solicitor).

- Cover how royalties are payable for use of such works by others (through the granting of permissions for the specific use of works in the form of licences, which are overseen policed and managed by PRS, PPL, MCPS). Learners should be made to understand that permissions for particular use that is unacceptable to the author of a work can result in a refusal to grant a licence. They should understand that no work out there in the public domain can be presumed to be 'copyright free', except 70 years or more after the death of the originator, even though it may state that it is.

- The script that is used for the production of the fiction radio artefact, should ideally be sourced externally and be adapted for radio, rather than the learner having to write it from scratch. There is insufficient time to allow original writing of scripts. Stage play scripts can easily be adapted and there are books of radio scripts.

- Allow learners to practise recording dialogue prior to completing the assignment. Demonstrate to the class how to record dialogue onto a sound recorder, either a portable unit like a Zoom, or a computer MAC or PC running appropriate software.

- Learners should collect sufficient pre-recorded material to demonstrate their understanding of the process, but should not be collecting material for the artefact they intend to make until the assignment brief is issued.

Issue the assignment brief for learning aim B with a submission date that is prior to the issue of the assignment for learning aim C.

Learning aim C – Create a fictional radio programme, complying with the codes and conventions of a fictional radio genre

When learners have gathered all the assets they need, you can demonstrate the technique of mixing the recorded content on a suitable multi-track mixing software application, such as Audition, Audacity (freeware), Protools, Audiodesk (MOTU) or similar.

- Demonstrate how to import audio files as WAV or AIFF files into a suitable multi-track sound mixing application, using click and drag or copy and paste techniques

- You can demonstrate this in two ways:

  o use recorded dialogue direct from a portable recorder and import it, still in the digital domain, by use of the SD card, to the computer software that is going to be used for mixing it with the sound effects, ambience, music etc.

  o record it directly onto a track of the mixing application on the computer or mixer.

- It is important that when learners practise mixing techniques they do not use the material that they have gathered for the assignment.

Issue the assignment brief for learning aim C with an appropriate submission date.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 4: Pre-production Portfolio*

- *Unit 15: Advertising Production*

- *Unit 16: Factual Production*

- *Unit 19: Scriptwriting*

- *Unit 22: Interviewing Techniques*

- *Unit 25: Sound Recording*

- *Unit 38: Sound Mixing.*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

This unit requires each learner to have access to a computer and the internet. Computers should be loaded with appropriate digital recording, editing and mixing software. Facilities should also be provided for learners to record on location using portable digital audio recorders. There should be a facility for learners to download radio programmes in MP3 or WAV AIFF format.

All learners will need to record, edit and mix sound material. All learners will need to be able to source sound effects and pre-recorded production music from appropriate websites.

Textbooks

- Beaman J – *Interviewing for Radio* (Routledge, 2000) ISBN 9780415229104.
  A good guide to putting an interview together.

- Beaman J – *Programme Making for Radio* (Routledge, 2006)
  ISBN 9780415365710.
  This book has a chapter on radio fiction.

- Emm A – *Researching for Television and Radio* (Routledge, 2001)
  ISBN 9780415243889.
  This is an essential guide to how to conduct research, with some good advice for radio production.

- Fleming C – *The Radio Handbook*, 8th Edition (Routledge, 2009)
  ISBN 9780415445085.
  This book puts you in the picture about where radio is in the media race.

- McLeish R – *Radio Production*, 5th Edition (Focal Press, 2005)
  ISBN 9780240519728.
  The essential work on all forms of radio programme making with chapters on plays and other fiction.

- Starkey G – *Radio in Context* (Palgrave, 2004) ISBN 140390023X.
  This is another good radio production book from one of the few UK professors of radio with chapters on radio fiction and some radio studies material.

- Chignell H – *Key Concepts in Radio Studies* (Sage, 2009)
  ISBN 9781412935173.
  Radio codes and conventions are addressed in this excellent volume.

- Crisell A – *Understanding Radio 2nd Edition* (Routledge, 1984)
  ISBN 9780415103152.
  Probably the original radio studies book, this is an in-depth discourse on radio codes and conventions.

- Shingler M and Wieringa C – *On Air Methods and meaning of Radio* (Arnold, 1998) ISBN 9780340652314.
  This is a good work text for radio studies with excellent classroom exercises and practical guidance.

- Warren S – *Radio: The Book,* 4th Edition (Focal Press, 2005)
  ISBN 9780240806964.
  A guide to the radio industry and how to get started in it.

Websites

- www.bbc.co.uk/iplayer

- http://www.bbc.co.uk/radio

Unit 12: Website Production

Delivery guidance

Approaching the unit

This is a production unit that provides learners with the opportunity to engage in the process of producing a website. The unit is mandatory on the National Diploma in Digital Publishing and it is envisaged that the unit would be delivered towards the beginning of a Digital Publishing or Interactive Publishing and Media pathway, as it provides the foundations upon which a more specialist understanding of web design and production can be built (for example through *Unit 30: Page Layout and Design for Digital Media* and *Unit 31: Coding for Web-based Media)*.

Learners will need to understand web authoring tools and techniques and the ability to use appropriate web design software is fundamental to successful website production. It should be stressed that template-based website editors, such as Wix, should be avoided as they do not enable learners to cover the unit content and meet the assessment criteria.

Learners will be manipulating coding and programming languages through the web design software and, although there is no need for learners to write and edit HTML, CSS and JavaScript directly, a solid grasp of how the source code of a page is structured will help learners understand how a website functions and encourage them to use the code view as they build and refine their web pages.

Learners should be encouraged to incorporate both primary and secondary assets into their website. However, the focus is on producing an effective website and therefore it is sufficient to create an icon, take a specific photograph or record a short video for inclusion in the site. Producing fully functional sites with consistent page layouts, interactivity and accessibility to provide a positive user experience is the aim of the unit and how the majority of the guided learning hours should be spent.

Delivering the learning aims

Learning aim A covers the common codes and conventions of websites. In essence, learners must explore a range of different types of website in order to understand their different purposes and audiences. Although learners may select their own examples for study, the teacher may want to select some specific examples to ensure a sufficient range is covered. For example, learners may find it easy to find an e-commerce site but be less familiar with sites providing information. Breaking web pages down into their different component parts should provide learners with an insight into the language of web design and an understanding of the underlying structures that will inform their own practical work later in the unit.

The practice of advertising on the web is an area that has evolved in recent years and learners should be encouraged to investigate the different forms of web advertising and the impact on the user experience. In fact, the concept of user experience is at the heart of this learning aim. Learners must move beyond a recognition of audience and purpose to understand how accessibility and

interactivity affect the user experience. This could be achieved through analytical and practical exercises, such as textual analysis and practical experimentation.

For learning aim B, learners must prepare assets for their website. Learning aim A will have introduced learners to the kind of material found within websites and they will need to select primary and secondary assets for inclusion within their own sites. Learners will need to be able to produce original text and graphics and it is expected that they will be able to adopt some of the practical skills and techniques that they have developed in other units when producing assets. For example, digital photography, graphic design and audio and video production skills could all be harnessed to produce suitable assets. However, it is important to note that learners should not undertake large-scale production work for inclusion within their websites. It is not appropriate, for example, for learners to produce a music video for inclusion within a band website and secondary sources should be used for such material. Learners should be provided with access to asset banks, such as stock libraries, and tutors may wish to develop their own libraries for learners to use. The issue of copyright and clearances should be addressed, and this is an area where an industry professional could be used to explain the established professional practices.

Asset preparation techniques should cover text, images and audio-visual material. Enhancements to images should be considered, but these should be quick (for example, cropping or adjusting brightness and contrast). The focus of the unit is on selecting appropriate file formats and utilising image optimisation techniques. Similarly, only basic editing techniques should be applied to audio and video files, such as trimming clips, and the focus should remain on file formats and compression techniques. Learners will require support to select suitable methods of recording the steps involved in preparing the assets. For example, annotating screen shots, narrating screen recordings or maintaining a video production log are all acceptable ways of providing suitable evidence of attainment in relation to learning aim B.

Learning aim C covers the production of a website for a specific audience and purpose. Learners should be encouraged to follow the workflow of a web design production from designing the pages, to building and testing the site. The emphasis should be placed on prototyping page layouts and the creative decisions such as the page structure, colour scheme and typography. Although there is no requirement to use a page template, learners should ensure consistency between pages. Learners will need time to develop the skills to insert, position and present assets effectively and ensure that the navigational and interactive features function as intended.

The final website will have to be tested in different web browsers, such as Internet Explorer, Safari, Firefox and Chrome, and learners should be encouraged to create a test log at the start of the production process to enable ongoing testing, recording and improvement with regard to the functionality, accessibility and user experience of the site. It is expected that learners will have access to web design software that will enable them to cover all of the unit content and meet the assessment criteria.

Learning aim	Key content areas	Recommended assessment approach
A Understand the codes and conventions of website production	**A1** Audience and purpose **A2** Common components of a web page **A3** Accessibility features **A4** Interactive content	An interactive report, e.g. a blog, e-portfolio or e-book, with comparative analysis of how different websites incorporate common codes and conventions, interactivity and accessibility for a specific purpose and audience.
B Prepare materials for website production	**B1** Sourcing assets **B2** Selecting assets **B3** Preparing assets for inclusion in a website	A log of assets from primary and secondary sources. A record of the process of preparing assets, e.g. annotated screen shots, screen recordings, or production logs of how text, images and audio-visual content were prepared.
C Produce a website for a specific purpose and audience	**C1** Structure and organisation **C2** Creating a page layout **C3** Inserting and positioning assets **C4** Navigation **C5** Interactivity **C6** Testing in different web browsers	A website produced for a specific purpose and audience. A record of the development of the website, e.g. annotated screen shots, screen recordings, audio/video recordings and production log. A test log to assess the functionality, accessibility and usability of the website.

Assessment guidance

The report produced in response to learning aim A should provide a detailed comparison of a series of websites, which serve different purposes and audiences, evaluating the ways in which the different websites utilise common components, accessibility and interactivity to serve their purpose and appeal to the intended user. The report can be presented in any appropriate format, for example a blog or e-portfolio, with links to narrated screen recordings analysing the different websites.

In response to learning aims B and C, learners must produce a website for a specific purpose and audience. The evidence for assessment should include a log of assets, a record of the process of preparing the selected assets, planning documentation, a record of the development of the web pages (e.g. annotated screen shots, screen recordings, audio/video recordings or a production log) and a test log to record the functionality, usability and accessibility of the website.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 12: Website Production

Introduction

Learners will be very familiar with certain types of websites and less familiar with others.

To introduce the unit, learners could be shown a range of website designs in Pinterest to illustrate page composition, layout and design techniques. However, design is only one aspect of website production, functionality is at the heart of user experience and learners need to understand that effective website production involves building a positive user experience through engaging content, interactive features, accessibility and usability. Allowing learners to engage with a range of different websites, which serve different purposes, and capture aspects of the sites that most appeal to them to build a digital scrapbook, will introduce learners to the aims of the unit and also provide them with a valuable resource.

Learning aim A – Understand the codes and conventions of website production

Learners are building up to the following assessment: an interactive report, e.g. blog, e-portfolio or e-book, with comparative analysis of how different websites incorporate common codes and conventions, interactivity and accessibility for a specific purpose and audience.

- Learners could begin by breaking down different web pages into their component parts so as to establish a common language. This could be done practically through a wireframing tool by which learners reproduce different pages from the same website in order to highlight the editable regions in a page template and the importance of consistency in web design.

- Producing a content analysis of different types of website would give learners a sense of the different types, categories and purposes of websites and what different sites provide for their users. This would be a suitable point to consider the extent to which interactivity enhances the user experience.

- Media packs give learners an insight into the way the producers of the sites define their audiences and also a vehicle for analysing the advertising opportunities within websites, the role of advertising in web production and the extent to which advertising enhances or detracts from the user experience.

- To consolidate their learning, learners could prepare a presentation on a particular website to cover:
  - purpose
  - audience
  - brand identity
  - types and purpose of advertising on the site
  - summary of web analytics (e.g. visits, actions, length of visit, browser)
  - positive and negative aspects of the user experience.

- Learners should be asked to explain different accessibility features. Working in groups, learners could take one accessibility feature and explain what it is, why it is important and how it works. They should also explore accessibility in a practical

way by using a text editor or web design software to add suitable alternative text to images inserted in a web page and/or experiment with the contrast between the text and background colours on a webpage to find the best (and worst) contrast.

- In particular, learners should consider the ways in which their research will inform their own website productions in the next learning aim.

Learning aim B – Prepare materials for website production

Learners are building up to the following assessment: produce a log of assets from primary and secondary sources. Record the process of preparing assets, e.g. annotated screen shots, screen recordings, or production logs of how text, images and audio-visual content were prepared. Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of websites that they carried out in the first learning aim in order to inform their own website productions. As such, you should take a holistic approach to the delivery of these learning aims.

- In preparation for the assessment, learners could be given a sample brief in order to gain the necessary knowledge, skills and understanding to prepare materials for web production. Designing their own assets table will encourage learners to consider how best to log the material they source and, before learners begin to source assets for the mock brief, they will need to understand which file formats to use and where to save the assets.

- The mock brief can be used as a stimulus for creating primary assets. For example, following a teacher demonstration, learners could use appropriate software to create a logo and image sprites for buttons, saving them in an appropriate file format and entering the details into the assets table.

- As an introduction to writing copy for websites, learners could explore different web pages to ascertain the amount of text on the page, its position on the page, how it is presented and the style and content of the copy. This knowledge will support learners to write a paragraph of text for the mock brief, which they could add to a web page. They should experiment with <h1> to <h6> HTML tags to add headings and subheadings to the text.

- A guest speaker from the creative industries could explain the range of secondary sources available to web designers and their uses, copyright restrictions and clearances, for example creative commons licenses, as this information will need to be added to the assets table.

- A series of practical workshops could be used to enable learners to develop skills in preparing assets. For example, learners could experiment with image manipulation techniques, re-sizing and cropping images, optimising images, audio and video editing techniques and compressing audio and video files. Learners could be provided with an asset bank of secondary assets to practise on.

- The image, audio and video assets prepared by learners could be added to the assets table enabling them to consider whether to select or reject each asset for a website designed in response to the mock brief. Having made their decisions, learners should be encouraged to justify each of them.

Learning aim C – Produce a website for a specific purpose and audience

Learners are building up to the following assessment: produce a website for a specific purpose and audience. This should include a record of the development of the website (e.g. annotated screen shots, screen recordings, audio/video recordings and production log) and a test log to assess the functionality, accessibility and usability of the website.

- Using the mock brief as a stimulus, learners can engage with each stage in the production process. Tutors can demonstrate a series of initial steps, skills and

techniques, such as sketching a layout, creating an appropriate folder structure, adding metadata to a web page and choosing a page size, which learners can implement for the mock brief.

- Creating a page layout, inserting, positioning and presenting page content (images, text and audio-visual material) are all essential skills for web production that will need demonstration, practice and reflection in order to enable learners to develop the necessary confidence and skills to produce effective page layouts. Producing a quick guide to working with images, texts and/or audio-visual files in websites, will clarify appropriate tools, techniques and practices and give learners a useful resource for the assessment activities.

- Learners will also need practical workshops on how to use JavaScript libraries and frameworks to insert forms with form validation, add filter search and sort flexibility to HTML elements and add content panels, such as image galleries, to web pages.

- A guest speaker, such as a local web designer, could demonstrate how to achieve consistency between web pages and the compositional techniques used in web design, to help learners improve the layout and consistency of their own web pages.

- Learners will need to add links to their pages, including internal, external and email links, which will lead them to trying out their website in different browsers to test, record and improve the functionality, accessibility and user experience of the site.

- Learners will also need to carry out testing (for functionality, page display, working links, accessibility, WC3, and user experience) in different web browsers.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 9: App Production*

- *Unit 28: Image Manipulation Techniques*

- *Unit 30: Page Layout and Design for Digital Media*

- *Unit 31: Coding for Web-based Media*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Ducket J – *HTML & CSS: Design and Build Web Sites* (John Wiley & Sons, 2011) ISBN 9781118008188.
  This book covers how to read and write HTML5 and CSS3, structure and design web pages and sites, prepare images, audio and video for the web and control typography and layout.

- McManus S – *Web Design in easy steps,* 6th edition (In Easy Steps, 2014) ISBN 9781840786255.
  This book covers the key principles of good web design, effective navigation and how to use HTML, CSS and JavaScript.

Magazines

- .net
  Web Designer

These two magazines are the leading authorities for web creatives and designers with expert guides covering next-generation technologies such as HTML5, CSS3, jQuery, WordPress and mobile apps.

Websites

- w3schools.com
  World Wide Web Consortium. This website covers tutorials, references and examples of HTML/CSS, JavaScript, graphics and web building.

- webdesignerdepot.com
  This web design blog provides design resources, tips and techniques for web designers and developers.

Unit 13: Digital Games Production

Delivery guidance

Approaching the unit

This unit is fundamentally about game design. It complements a number of the specialist units but does not depend on them. In particular, learners do not need to be able to script gameplay behaviour or create any graphic assets to be able to complete this unit.

You will need access to plenty of games in a variety of genres. More than any other, this unit is based on learners' experiences as players and this is likely to be the most engaging aspect of it. Learners will develop their understanding of what constitutes exciting gameplay design by deconstructing as many examples as possible of good design by others.

Delivering the learning aims

Learning aim A introduces learners to the different core game genres and gameplay design considerations. It is important not to overestimate learners' prior knowledge: they are likely to be keen gamers, but less likely to have first-hand experience of a wide range of genres. You should draw on the expertise within your group of learners but ensure that they have some direct experience of all the genres in the specification wherever possible.

A major consideration for delivering the practical parts of the unit is your choice of game engine and genre frameworks within that engine. Learners do not have to script gameplay, so they will need a framework within which to work. Many engines ship with pre-set gametypes such as platform, racing or deathmatch, and learners would then be able to design levels using this pre-existing scripting. If you choose an engine without these features, then you will need to provide them yourself, which may well be an onerous task.

Another major consideration is what sort of practice to give learners. They need to practise both designing and making games, but their practice tasks must not overlap too closely with what they are doing for their assignment, which will also ideally allow them some choice. Practice tasks should be very specific and close enough to the final assignment task that they involve using the engine in the same sort of way, without being identical.

Learning aim B involves designing and preparing the game. There is no set level design format, although the results need to be to scale and cover all the features listed in the specification. Learners need to see exemplar planning documents and to practise creating their own. Learners will also need access to asset libraries. Many engines ship with some content, many have marketplaces with some free content, and community-generated content is also available, although you will need to vet this carefully to make sure it is appropriate. Learners also need to practise picking assets for a game, logging and storing them, and justifying their choices.

Learning aim C covers the practical creation of learners' own games/levels. They will need to be taught how to use the features of the game engine that they will need to create their games, and given opportunities to practise. They will also need opportunities to practise evaluation skills.

Learning aim	Key content areas	Recommended assessment approach
A Understand game genres and design considerations	**A1** Core game genres **A2** Gameplay design	Guide for an industry website.
B Design a digital game using sourced assets	**B1** Level design **B2** Source and prepare assets	Annotated level design with supporting detail. All assets to be used in the game with a log of sources, permissions and justification, written or spoken, of decisions made.
C Produce and check a digital game in a specific genre	**C1** Build a digital game **C2** Check the digital game	Digital game in the authoring software. Written or recorded documentation of the checking of the game.

Assessment guidance

The recommended assessment approach for learning aim A is a guide for an industry website. Such a guide could be in any format that allows learners to demonstrate independently their understanding in a way that can be subsequently demonstrated to a third party. For example, it could be a videoed presentation, or learners could record a commentary for presentation slides, or produce a podcast or a written document. There is a mass of information about game design available online: you should explicitly warn learners about plagiarism and you will need to be particularly vigilant.

Learning aim B has two elements: the level design and the sourcing of assets. Distinction standard designs need to be precisely to scale and comprehensive in terms of mechanics, placement of gameplay items and user interface. The specification is clear that simpler games will require multiple levels whereas games that are more complex will require only one.

How the assets are sourced has a very particular grading hierarchy. For pass standard, assets have to be appropriate. For merit standard, they have to be accurately logged along with permissions: learners must be able to easily check any asset not in their asset libraries and permissions must be fully documented. For distinction standard, the choice of assets has to be justified, and this will almost certainly require an additional spoken or written document. You should not withhold a distinction because a learner has not been able to find ideal assets. If a learner can explain how they went to lengths to find the correct assets, what they did find and why they made the final sub-optimal choice, then this is a justification.

Learning aim C also has two elements: the game itself and the checking and evaluation of the game. The first requires care as there are so many elements of the game that you are not assessing. The scripting of the game and the assets are not relevant here. The sole question is how the available features have been put together in a design and how that design fits the genre, targets the audience and, for distinction standard, displays creativity.

The assessment of 3D levels raises particular issues. This unit does not duplicate *Unit 41: 3D Environments* so there are a lot of environmental elements listed in that unit that are not required here. Some elements may be required to create interesting gameplay, but how they are used is relevant as learners will be assessed only in terms of gameplay. However, this unit does require that learners can select and import assets, even though the effectiveness of this is not assessed.

The checking of the game also has a specific hierarchy. Pass standard concentrates on functionality. Bug reports are not required, but learners must document what they have done to check that the game works. Merit standard requires an assessment of strengths and weaknesses, while distinction standard requires a justification.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 13: Digital Games Production

Introduction

Introduce this unit through a presentation of contemporary games, either screenshots or video, covering a variety of genres. Ask learners to consider the different elements of games and then lead the discussion to what this unit covers (design) and what it does not (programming and graphics). This can be a difficult distinction to draw, and it is worth spending time at the start to get it right. It will also give you a useful audit of learners' existing understanding of genre, allowing you to pitch accurately your teaching for learning aim A.

Access to commercial game studios can be difficult to negotiate, but seeing a designer at work in a studio, or having one visit the learners, would be another excellent introduction if the opportunity is available.

Learning aim A – Understand game genres and design considerations

- Start the teaching of A1 with the definition of genre in games. Learners need to understand that the genre of games is defined through gameplay. Games have a graphical theme, such as science fiction, but this does not define genre in the same way that aspects such as mise-en-scène do for film. Give students a range of contemporary games and films and ask them to define the genre for each, then compare and discuss their decisions.

- Deliver the genre content for A1 practically through gameplay. As much as possible, these should be professionally produced games on a range of platforms. You will be constrained by what equipment you have, but remember that you can demonstrate the principles of genre and design on older technology that is often very affordable, or which people may lend to you. Your learners are also an important resource here. Many will have mobile devices and free-to-play games for these are an important dimension to your teaching.

- Ideally, you will go through the content one genre at a time, asking all learners to play a range of examples of a particular genre and then discussing how these, and other examples, use the genre features as set out in the content. Alternatively, you may want to set up a carousel of different genres that learners work round and then they could discuss a group of genres together. When using gameplay as a teaching tool, it can often help to work in pairs or threes so one learner plays and the others observe so that there are different perspectives on the game. Genre is not a straightjacket and, in the discussion, you should lead learners to an understanding of how games have worked within a general framework, creating enough similarity to other games to be recognisable but enough difference to be interesting.

- You need to give learners an opportunity to practise analysing and evaluating for better grades. Ask learners to do this with a specific game that they have all played, and give them clear formative feedback on this. Make sure they understand that they will need to use different examples in the assessment itself.

- The specific genres all have their own specific teaching considerations. All the genres have multiple sub-genres, some of which are discussed below. This should not be taken as extending the content. When learners discuss genre, they will need to consider where their examples fit in with the genre, but they are not expected to review all the sub-genres.

- There is tendency to see role-playing games (RPGs) as depending on a fantasy theme with medieval weapons and magic, but it is important to stress that RPGs depend on the development of a character over a long period. There are well-known examples of RPGs, or games with RPG elements, using a range of graphical themes.

- Strategy is often used as if it is synonymous with real-time strategy, but it is important that learners understand that there are a range of strategy games. Turn-based strategy has survived in browser games, and elements of strategy form the basis of multiplayer online battle arena games (MOBA).

- Sports games seem straightforward, but learners tend to regard them as confined to track and field sports. Many driving games are really sports games, or sports action in some cases, and you need to draw this out for learners.

- Adventure games can be problematic for learners. Some games billed as adventure are really action adventure games, and this can be misleading. Pure adventure games, generally with a point and click mechanic, were very popular but became less so in the 1990s. However, they have never gone away, and there has been a significant resurgence in recent years. Adventure games generally have some sort of puzzle-solving element, but learners should understand that these are subservient to the development of the narrative and/or the exploration of the game environment. For the purposes of the specification, many platform games are a sub-set of adventure games.

- Action is a more straightforward genre in some respects but it is often the first choice for hybridisation, so learners may think many games are action games when they are action RPGs or something similar. It is important to help learners explore the core of action games, and something like an on-rails shooter can help here.

- Simulation is complex, and this is one area where it would be very helpful for learners to distinguish between two key sub-genres. Simulation is used to describe realistic re-creations of real-world activities: flight simulators, train simulators and some driving games fall into this category. Simulation is also used to refer to what might be better termed management games: non-realistic creation and management of cities, pets, roller coasters etc.

- Puzzle is a very wide genre and there are many different types, but learners need to understand that problem solving has to be the core activity for it to be a puzzle game. There are a number of specific types mentioned in the content and you should cover all of these with learners.

- You should also initially teach the content of A2 through gameplay. It is possible to do this at the same time as teaching genre for A1, but this will involve covering a lot of content in one go and may lead to gaps in learners' understanding. Learners should play a game focusing on particular aspects of the content, and then you should lead a discussion to draw out how those aspects have been more or less successfully used in the design of that game. Again, it is often helpful to have learners play games in pairs or threes. However, some aspects of the content (Easter eggs, for example) may be taught more effectively by discussing learners' own experiences in games they have played.

- Core gameplay mechanics covers everything that defines how the game works. A simple platform game, for example, will have a series of key aspects. Horizontal speed of the avatar is an obvious one, but there may be acceleration and deceleration components along with environmental factors that may affect these. Jump height, whether there is a double jump, and how the environment may boost or inhibit these are others. Interaction with the environment, including non-player characters is yet another: for example, whether enemies will be destroyed and, if so, how. Identifying the mechanics is the first stage but then you need to guide learners in discussion to see how the mechanics have been used in specific examples to create entertaining and engaging games.

- Some of the remaining content flows from a consideration of the core mechanics. Goals, challenges and rewards are built on the fundamental game mechanics. Progression, especially progressive difficulty, is the same, but may also depend on in-game rewards allowing the player to tackle more difficult challenges or achieve goals that were previously unattainable.

- Balance and flow, in particular, are based on how well environments have been designed in the light of the core mechanics. Many games are designed so that a player who is fully focused and performing at their best will have an almost effortless sense of moving from challenge to challenge, but you need to help learners see that this is as much a product of the level design as the state of the player, and that poor design can interrupt this state.

- Link balance to fair and unfair player punishment. Learners sometimes approach game design as an opportunity to exercise capricious power over an unsuspecting player. Even though this is an issue for them when designing their own games, it would be a good time to highlight it is here. Unfair punishment can be hard to demonstrate practically since professionally produced games try to avoid it, and you may need to discuss what would happen if games were changed to be unfair, for example by making environmental hazards invisible rather than hard to spot. Alternatively, you could create your own small level with unfair punishment to illustrate the point.

- Replay value and the appropriateness of the game for the target audience are based on all the previous considerations. What makes players want to play a game over and over again? And what makes them give up half way through, or complete it once and never pick it up again? Learner's own experiences are the best place to start here, but you need to move them on to consider how to design games to create that same experience in different audiences. For example, a learner who is a hard-core gamer motivated by really difficult challenges, which are only overcome through repeated practice, needs to understand the skill in designing a game with the right level of challenge for a casual audience.

- Teach emergent gameplay through discussion. Learners are likely to have experience of tackling game challenges in ways that were not intended and this is the best place to start: it is challenging to get learners to play games using unforeseen solutions. However, gameplay of a very open sandbox game is likely to be very helpful.

- In particular, learners should consider the ways in which their research will inform their own digital games productions in the next learning aim.

Learning aim B – Design a digital game using sourced assets

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of digital games that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, you need to be very careful that the teaching prepares learners for the assessment without compromising it. You should teach learners the design consideration for the genres and frameworks available to them, but it is important that they do not get formative feedback on a design that is essentially the same as the one they will use for assessment.

- Start the teaching of B1 by looking at the genres and frameworks available to learners so they are clear from the outset what they are aiming at when they design their own games.

- Move on to look at annotated level designs. Learners will be creating designs that take into account existing gameplay mechanics rather than scripting them, and the designs need to demonstrate how this has been done. Learners have already

learned about gameplay elements, and so they need to understand what is required in terms of an actual design, especially how much annotation is required for merit and distinction standard work.

- Learners can find it difficult to include everything on a level design, as some things seem obvious to them. Ask learners to create their own designs based on an actual game or level as a practice task. This will allow you to give clear feedback on everything that should be included.

- Model how to source and log assets. Give exemplars to learners to refer back to and get them to practise with assets they will not be using for assessment. In particular, learners need to understand how to check the precise permissions for every asset they use, and how to document this. Vague checks, such as a search engine flag that the material can be reused, or a generic assertion that the material can be used for educational purposes, are vocationally inappropriate and must not be accepted. Learners do not need a comprehensive understanding of copyright law, but they must understand that they can only use assets if there is specific permission saying they can, and they must carefully check and document the terms of that permission. It is vocationally more appropriate to allow learners only to use assets with permissions for commercial use.

- Explain to learners the key factors affecting their choice of assets. There will be key practical considerations based on your chosen game engine around things like file types and size, but there are also considerations around aesthetics and audience. For distinction standard, learners need to justify their choice of assets in the light of these considerations. Give learners the opportunity to practise this using assets and a game type they will not be using for assessment.

- Stress to learners the importance of good file management from a vocational perspective: it is not just about whether they can find their assets, but whether somebody else in their studio can find their assets when they are not there.

- How much you teach learners about asset modification will depend on your game engine and your learners' existing knowledge. Re-sizing assets and saving them in a different file type are likely to be essential. You will need to show learners how to do this, and give them the opportunity to practise. It will also be important to explain to learners what you are not teaching them to do. They need to be aware, when selecting assets for their games, that they may not, for example, know how to create an animation based on a still image and must bear this in mind during the assessment.

Learning aim C – Produce and check a digital game in a specific genre

As for learning aim B, you need to be very careful that the teaching prepares learners for the assessment without compromising it. As much as possible, you should get learners to practise using features of the engine with genres they will not be using for the assessment.

- Show learners how to import assets and get them to practise. The teaching issue here is more around what can go wrong, rather than how it generally works. Remember that you will not know what assets learners may have. For example, in 2D you might need to cover how to import png sprite strips and also how to remove coloured backgrounds from animated gif files. Try to identify the common pitfalls for externally sourced assets, explain to learners how to deal with them and then give them a collection of assets with varied difficulties and ask them to import the assets.

- Teach general set-up using a genre that will not be used for assessment. The skills required to use the basic features of the room or level editor to construct a level are common to all game types. Give learners the opportunity to practise and give them formative feedback.

- Choosing what to teach for the construction of goals, challenges and rewards requires care. This is fundamental to the assessment of the unit, so practice with and feedback on the placements of items to fit with a genre should be done with a genre that is not used for assessment. This is not a scripting unit, but it may be helpful to show learners how to access and tweak the scripts controlling gameplay. This will need to be done for the genres that learners are using for assessment, as they will not have the scripting experience to do this for themselves. However, any formative feedback around how well values have been adjusted to create effective gameplay should be in a different genre.

- Show learners what the expectation is for checking the functionality of their game. This is not looking for bugs, but checking that the level(s) they have created are achievable and there are no major errors allowing players to circumvent the designed gameplay. A play-through by the learner and one or two others is sufficient, but must be documented.

- Assessing and justifying the game are higher order skills and learners will need practice with this. Give them an existing game or level and ask them to evaluate it in terms of rules, progression and balance.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 34: Game Engine Scripting*

- *Unit 40: 3D Modelling*

- *Unit 41: 3D Environments*

- *Unit 42: Games Testing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Adams E – *Fundamentals of Game Design*, *Third Edition* (New Riders, 2013) ISBN 9780321929679.
  This is a standard game design text covering a significant range of content.

- Koster R – *Theory of Fun for Game Design*, Second Edition (O'Reilly Media, 2013) ISBN 9781449363215.
  This is a very accessible book looking at the fundamental question of what makes games enjoyable.

- Oxland K – *Gameplay and Design* (Addison Wesley, 2004) ISBN 9780321204677.
  Although this book is a bit dated now, it still has a lot of useful content on design, including a useful section on game genres.

- Rogers, Scott – *Level Up! The Guide to Great Video Game Design*, Second Edition (John Wiley & Sons, 2014) ISBN 9781118877166.
  This book covers a range of issues beyond the specification content, but also has very useful, relevant content.

- Schell J – *The Art of Game Design: A Book of Lenses*, *Second Edition* (A K Peters/CRC Press, 2014) ISBN 9781466598645.
  A fascinating but unusual approach to game design based on a range of different perspectives (lenses) on design.

Journals

- *Develop* (New Bay Media Limited)
  This focuses on all aspects of game development including design, and their website includes a range of tutorials.

Websites

Most engines have substantial documentation, tutorials and forums on their own websites and this is often the most useful place to look for help and resources. The websites listed below are those that do not specialise in any particular engine.

- http://www.3dbuzz.com/ – This is a video tutorial site with a range of free and paid for material, covering several major engines and a range of engine independent skills.

- http://www.designersnotebook.com/ – Ernest Adams' website including his *Designer's Notebook* columns.

- http://gamasutra.com/ – Gamasutra, run by UBM TechWeb, focuses on all aspects of game development including design, with updates, features and blogs.

Unit 14: Digital Magazine Production

Delivery guidance

Approaching the unit

This unit develops learners' understanding of the codes and conventions of magazine genres, the relationship between a magazine's purpose and its target audience, and the different considerations for magazines using print and digital platforms. You should develop learners' appreciation of magazines in a wide range of genres for different purposes and platforms, choosing diverse examples.

Give learners the opportunity to examine the codes and conventions used on magazine covers and layouts, and how they differ for different platforms (e.g. the use of interactive elements on digital platforms). Learners should discuss how composition and design elements are used, and how content is combined with these to create meaning within specific magazine genres.

Short, practical tasks should be chosen that will give learners opportunities to source and generate a variety of content including copy and images, as well as video, audio and interactive elements, as appropriate. Learners should develop an understanding of how to select and edit these and prepare them in suitable formats.

Learners will also need to have a practical understanding of the stages of production and the techniques used to combine these elements into trial layouts and they will need to develop selected layouts for a cover and a double-page spread into finished artwork for the assessment.

Delivery of learning aims B and C will follow on from each other and although initial tasks will allow learners to experiment with content for a variety of genres of magazine, for both print and digital platforms, the assessment tasks will focus on a specific genre, purpose and platform.

Learners should be able to understand and evaluate the effectiveness of the codes and conventions used within magazines for a specific audience, genre and platform, and apply this understanding in a practical way to their own assignment work, by the selection and preparation of content and creation of the finished designs. They should also be able to evaluate their own work. You should strongly encourage learners to generate their own original images for inclusion in the final layouts. However, inclusion of a small amount of copyright-free imagery is permitted where there are no reasonable alternatives.

Learners will need to have access to a range of resources in order to complete this unit. These include:

- a range of magazines relating to different genres and target audiences
- computers and appropriate magazine design software for print or digital platforms (which may also include drawing, painting, image manipulation, video and audio editing software)
- the internet
- digital still cameras
- scanners
- digital drawing tablets and traditional drawing and painting materials.

Delivering the learning aims

For learning aim A, learners should develop an understanding of the considerations, codes and conventions of a specific genre of magazine for print and digital platforms. You should introduce learners to a wide range of magazine genres, using both pre-digital and digital techniques. Learners will examine the purpose, target audience, codes and conventions of design and layout, and the differing technical considerations of magazine production for print and digital distribution channels.

Learners could be split into small groups, given different magazine genres and asked to research their own examples. They could then examine the different types of content and discuss the effectiveness of the use of codes and conventions in appealing to the target audience and fulfilling the magazine's purpose.

For learning aim B, in order to develop materials for magazine production, learners should be given the opportunity to attend a series of workshops to source or produce different types of content for different genres and audiences. These tasks may link with other units (e.g. the production of photographic content could link with *Unit 27: Digital Photography*), and, where possible, learners should generate images themselves. Learners may work in production groups to analyse the content requirements and source materials for non-assessed tasks, with each learner being given the opportunity to take a different role (e.g. writer, editor, designer or photographer). For assessed tasks, production groups may still be used for larger projects, but each learner must show evidence that they have individually sourced and generated a range of materials and they should produce an individual, annotated log showing all creative and technical decisions relating to how all the materials have been generated, selected and prepared. Before starting any assessed work, you should be confident that learners are fully competent in the preparation of materials in a suitable format for the intended platform.

Base your delivery of learning aim C on the work generated in the tasks for learning aim B. Learners will need to produce magazine layouts using the codes and conventions of a particular genre. They should experiment individually with use of codes and conventions within trial layouts, but may discuss the effectiveness of these in their production groups. Giving learners the opportunity to attend workshops should ensure that they are confident in reviewing and selecting designs to develop, and are able to test and publish their final designs for both digital and print platforms.

The formal assignment for this learning aim should specify the genre, purpose and platform of the final magazine, and should follow on from the assignment from learning aim B. If learners are working in production groups, they may use peer feedback to inform their work – however, final layouts for both a cover and double-page spread must be produced by each learner. An ongoing learner log or an annotated visual record must show justification of final design and production decisions. It will include a review of the suitability of the product for the specified audience, genre and platform. It is important that learners respond to the brief as they would to a live client brief, and adhere to deadlines.

Assessment for learning aims B and C could be by means of a live project. This task could be set by a commercial client or a design agency, if available, or be led by an internal marketing department (e.g. to produce a promotional magazine for potential new students).

Learning aim	Key content areas	Recommended assessment approach
A Understand the considerations, codes and conventions of a specific genre of magazine for print and digital platforms	**A1** Magazine genres **A2** Codes and conventions **A3** Platform considerations	A report in the form of a blog or presentation of annotated examples, evaluating the impact of the codes and conventions of magazine design and layout for a specific genre of magazine in appealing to the target audience and fulfilling the magazine purpose across print and digital platforms.
B Develop materials for magazine production	**B1** Source, log and generate appropriate content **B2** Preparing content in appropriate formats	Pre-production materials for a magazine, including an analysis of the content and technical requirements for a specific genre and platform, and an annotated log showing all creative and technical decisions relating to how all materials have been generated, selected and prepared.
C Produce magazine layouts in the codes and conventions of a genre	**C1** Magazine production stages **C2** Creating magazine layouts	Finished layouts for a magazine cover and double-page spread for a magazine of a specific genre, accompanied by a log of design and production stages. This may be presented in the form of a production log, blog or an annotated visual record; it must show experimentation with codes and conventions within trial layouts, and justification of final design and production decisions. It will include a review of the suitability of the product for a specific target audience.

Assessment guidance

This unit is assessed internally, using two or three assignments which cover all the learning aims and assessment criteria. There are three suggested assignments for this unit, although assignments covering learning aims B and C are linked and follow on from each other, so could be delivered as a single assignment if preferred.

The assessment for learning aim A could be done in a number of different ways, such as presentations to the peer group, reports or blogs. Learners should be encouraged to plan any presentations well in advance and to arrange for any special equipment or props that they will require.

Learning aims B and C are likely to follow the same theme, with learning aim B focusing on sourcing and preparing the content for the final product, while learning aim C focuses on generating the product.

All learners must independently generate individual evidence that can be authenticated, although there are opportunities for groups to work together on pre-production/production activities. For example, for learning aims B and C, a group of four learners could source and generate content and produce covers and spreads for the first four issues of the magazine using consistent design features, on which they would need to agree. In this case, it is important that all learners source and generate both text and image-based content. Alternatively, learners in the group could each produce a different spread and then pitch a different finished design for the cover of the launch issue.

Practical work could be submitted either as printouts or in digital format, as appropriate. This should be accompanied by evidence of development work and experimentation in the form of learner development logs that document the progress of the assignment and evaluate the creative and technical choices made throughout the process.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant section of the qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 14: Digital Magazine Production

Introduction

Introduce the unit by showing a variety of magazines for different target audiences and purposes in both print and digital formats. Engage learners with the topic by asking groups to discuss which formats are most appropriate to which audiences, and their own magazine reading preferences.

Follow this by giving an overview of the unit, discussing the three learning aims. Give learners a clear idea of the intended delivery methods and how they will be assessed. At this stage, learners could be encouraged to attend any appropriate exhibitions or directed to appropriate library resources for independent study.

Learning aim A – Understand the considerations, codes and conventions of a specific genre of magazine for print and digital platforms

The topics covered by learning aim A should give learners an underpinning understanding of the topic and therefore this learning aim should be taught before B and C. Practical tasks could be used to illustrate the theoretical points made and to further engage learners.

- Discuss the different purposes of magazines (to entertain, inform, promote, advertise associated products, appeal to a target audience or gain market share). If learners are not already familiar with audience profiling and demographics, an opportunity should be taken to cover this topic early in the delivery of this learning aim.

- You could then set learners a practical task to research how many different types of content they can find within magazines of different genres. They should be asked to make comparisons between magazines on printed and digital platforms. Learners should then discuss the target audience for each magazine and how the content is designed to appeal to this audience. They should define the demographics for magazines within specific genres (i.e. age, gender, psychographics and other demographic considerations).

- Following on from the previous task, learners should be asked to analyse the covers and inside spreads of a range of magazines, comparing and contrasting the differing use of codes and conventions (see examples given below) within different styles of magazine, and report their findings back to the class. It is important that learners consider how these codes and conventions have evolved for digital platforms.

    The codes and conventions of magazine covers are:

    o masthead (title)

    o sell-lines/coverlines

    o strapline, tagline or slogan

    o price and bar code

    o cover model or celebrity photo.

    The codes and conventions of magazine covers are:

    o headings

    o columns

- composition, including grid structure, balance and use of white space
- page numbering and folios
- how design elements, including colour, typography and layout, are used to engage the target audience within a specific magazine genre
- how content is combined to create meaning within a specific magazine genre.

- At this stage, it may be appropriate to allow learners the opportunity to sketch out their own trial layouts for magazines, experimenting with codes and conventions, to put the learning in a practical context and form links with learning aim C. They should define the appropriate content needed to appeal to the target audience (e.g. journalistic, lifestyle, celebrity 'gossip', informative, interviews, editorials, humorous, reviews and competitions).

- To conclude the taught element for learning aim A, you should lead a classroom discussion of both the benefits and limitations of digital platforms when compared with print. This comparison should including costs, technical requirements and appropriateness to audiences, along with a consideration of how they are distributed.

- You could give learners resource handouts to support this learning aim. These could be produced by the learners themselves, after their research and analysis of magazine content.

- If possible, it would be beneficial to arrange visits to suitable exhibitions and encourage learners to attend these in their own time.

- These activities will prepare learners for the assessment in learning aim A, in which they are required to produce a report evaluating the impact of the codes and conventions of magazine design and layout for a specific genre of magazine across print and digital platforms.

- Once you are sure that learners are fully prepared with the knowledge necessary to complete the assignment, introduce it and go through the different stages of the assignment brief with them.

- In particular, learners should consider the ways in which their research will inform their own magazine productions in the next learning aim.

Learning aim B – Develop materials for magazine production

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of digital magazines that they carried out in the first learning aim in order to inform their productions. As such, you should take a holistic approach to the delivery of these learning aims. Learning aims B and C are likely to follow the same theme, with learning aim B focusing on sourcing and preparing the content for the final product, while learning aim C focuses on actually generating the product.

- During a series of workshops, learners could be set tasks designed to develop skills in writing, selecting and editing copy for different genres. They could be given flawed articles to edit and rewrite before being asked to research and develop their own articles. Working in pairs, they could be given the task of copy-editing each other's work. They should:

- consider modes of address and appropriateness of language
- check and correct (facts, accuracy and balance)
- copy-edit for spelling, grammar and clarity.

- Learners could then be given the opportunity to source or generate imagery to go alongside their articles, including text, photography, illustration, graphics, video,

audio and interactive elements, as appropriate. There is an opportunity to link this with another unit such as *Unit 27: Digital Photography* or *Unit 29: 2D Digital Graphics*, or for learners to commision work from other learners studying photography or illustration. Workshops should ensure that learners are familiar with importing and correcting images (cropping, scaling, etc.) and exporting with appropriate file format, file size and image quality. They should consider the aesthetic and technical qualities of visual content.

- As learners' skills and confidence grow, they could be given specific genres of magazine and asked to work in small production groups to analyse the content requirements and source materials. As in learning aim A, they should consider the appropriate content types for genre, audience and purpose (e.g. journalistic, lifestyle, celebrity 'gossip', informative, interviews, editorials, humorous, reviews and competitions). Each learner should be given the opportunity to take a different role (e.g. writer, editor, designer or photographer). You should strongly encourage learners to generate or commission original material. However, the sourcing and use of some copyright-free imagery is permitted where there are no reasonable alternatives. It is also important to explain to learners how they may go about sourcing secondary text and visual materials with consideration of copyright and permissions for use.

- Learners should also analyse the technical requirements of their final product and the platforms on which it will be published.

- If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers or visits to suitable exhibitions). This will also help learners to consider what careers/areas of study that they would like to progress to.

- It is likely that the delivery of learning aim C will follow directly from the delivery of learning aim B, after which both learning aims will be assessed by a single assignment. However, it is also possible to complete the gathering and preparation of materials for an assignment prior to delivery of learning aim C.

Learning aim C – Produce magazine layouts in the codes and conventions of a genre

Your delivery of learning aim C is likely to utilise the materials sourced, the ideas developed and the initial planning created from learning aim B to use within trial and finished layout designs. Learners should individually experiment with use of codes and conventions within trial layouts, but may discuss the effectiveness of these in their production groups.

- Learners should begin by developing trial designs for both covers and spreads (taking into account their differing design considerations) for magazines of different genres, with different target audiences. They should consider:
  - content placement
  - composition
  - balance
  - white space
  - typography
  - layout conventions
  - use of margins or bleed
  - use of colour
  - decorative elements
  - aesthetic qualities

- o shortening or expanding copy to fit
- o potential for use of media rich content (video, audio and interactive elements) for digital magazines.

  They may start by producing layouts for a print version of a magazine and then experiment in converting this to a layout for a digital version. Initially, they should be encouraged to sketch out a wide range of different experimental designs and draw inspiration from professional layouts, prior to selecting designs to develop further on computer. Links could be made with *Unit 30: Page Layout and Design for Digital Media*.

- Learners should conduct peer reviews of the designs and consider the reasons for the selection of final layouts. They should then produce these digitally, importing the materials generated during the course of learning aim B.

- At this stage, learners should be encouraged to develop final layouts for both print and digital versions of a magazine. These should then undergo a further peer review to test interactive content on the digital version, and to discuss the readability, resolution and appropriateness to target audience of both versions. If learners are working in groups producing a different spread each and pitching different finished designs for the cover, then, rather than a peer review, this could take the form of an editorial review and a guest could be invited to attend the lesson to play the role of editor and pass judgement on the designs. The guest editor should ideally be from industry, for example, from a local newspaper, but could be a university student or a member of your centre's marketing department.

- Following a review of these final designs, a workshop session should instruct learners on how to publish the materials for both print and digital platforms correctly. For example, they should learn how to print with trim marks for the print version.

- Once you are sure that learners are fully prepared, you should introduce the assignment and go through the different stages of the assignment brief with them. Formal assignments should specify the audience, genre and platform, but it is not necessary for the assessment that learners produce final designs for both print and digital platforms.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 15: Advertising Production*

- *Unit 27: Digital Photography*

- *Unit 29: 2D Digital Graphics*

- *Unit 30: Page Layout and Design for Digital Media*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Anton KK and Cruise J – *Adobe InDesign CC Classroom in a Book* (Adobe, 2015) ISBN 9780134310008 – Useful tutorials for centres choosing to design final layouts using Adobe Indesign.

- Crowley D – *Magazine Covers* (Mitchell Beazley, 2006) ISBN 9781845332396 – Showcasing 300 cover designs from over the course of a century, this is useful to compare the codes and conventions used on covers and how they have developed.

- Samara T – *Making and Breaking the Grid* (Rockport Publishers Inc., 2005) ISBN 9781592531257 – This is a comprehensive layout design workshop book with examples of the work and processes of top designers.

Magazines

- *Computer Arts* (CreativeBloq) – This is an industry-leading magazine for graphic designers full of useful articles, tips and professional examples.

Websites

- http://www.digitalartsonline.co.uk/tutorials/ – This is a useful site for tutorials, including InDesign.

- http://design.tutsplus.com/articles/15-indesign-tutorials-for-magazine-and-layout-design--vector-5456
  This is a useful site for tutorials – this page specifically features InDesign tutorials for magazine layout and design.

- http://digitalmagazineawards.com/
  This features award winners in digital magazine design and productions.

- https://flippingbook.com/online-digital-magazine
  A digital magazine publishing tool.

- http://www.howdesign.com/magazine/
  This is a digital magazine aimed at inspiring designers, particularly those using digital platforms.

- https://www.joomag.com/
  This is a digital magazine publishing tool.

- http://www.magazinedesigning.com/
  This gives useful tips for those designing magazines for both print and digital platforms.

- http://www.magazinedesigning.com/55-best-tips-for-a-sucessful-magazine-cover/
  This is particularly useful for analysing conventions of, and producing layouts for, cover designs.

Unit 15: Advertising Production

Delivery guidance

Approaching the unit

This unit is an optional unit, which is internally assessed. The unit seeks to assess the knowledge and understanding of the persuasive techniques applied to advertisements, and to develop and assess the creative technical skills used in their production. Like all media productions, advertisements follow common codes and conventions and learners will need to understand what these are before they move on to the practical production of their own advertisement. All media sectors make use of advertisements to promote or sell their products, so, with this in mind, you should allow your learners to appreciate the broad scope of advertisements, showing them how they are distributed on diverse platforms and consumed in various formats.

In your delivery of this unit, you should ensure that your learners immerse themselves in advertising in all its different formats. Inspire your learners to create accomplished advertisements themselves by exposing them to the creativity and innovation on display in the world of advertising.

Delivering the learning aims

For learning aim A, your learners need to know what the codes and conventions of advertisement production are. As a starting point, engage your learners in a discussion to assess how much they already know and understand about the distribution and consumption of advertisements. Learners are certain to be familiar with TV and magazine advertisements, but are likely to be less familiar with other broadcast advertisements such as radio or cinema, or adverts on digital platforms. Immerse your classroom in advertising to present learners with examples from all media sectors. Develop their understanding of distribution and consumption of advertisements by allowing them to explore (look at, touch and listen to) advertisements on TV, radio, online, on mobile phones, tablets, and so on. Once your learners have gained knowledge and understanding of advertising by sector (A1 content) you can move on to delivering A2 content. Start by asking them who they think the adverts are aimed at, and which ones appeal to them. This will get them thinking about target audience. It is important that learners understand the specific audience classification categories used by advertisers as well as the more general categories of 'mass' and 'niche' audiences. There are many readily available resources that explain audience classification, but make sure that you edit and present them in an easy-to-understand format, as learners can become confused or overwhelmed by the technical terms. Make use of visual aids such as infographics to illustrate the categories and spend time allowing learners to apply the terminology associated with audience classification. You could also collect examples of advertisers' information packs that use many of the audience classification terms. These packs provide a wealth of useful data for this learning aim and can also be used for learning aim B.

For A3 content, learners should understand that the codes and conventions apply across all media sectors. To emphasise this, you could go through each bullet in the A3 content and provide illustrative examples from across the media sectors.

Annotating real adverts and creating class displays or presentations would be a good way for learners to gain an understanding of the codes and conventions.

For A4 content, you will need to ensure that your learners can identify advertisement types and their persuasive techniques. You could put together a tutor presentation to show examples of all the advert types and then deconstruct them in terms of form, style and persuasive technique. Once learners understand these terms and can identify and categorise advertisement types on their own, you could set them tasks to research and present more examples. You may want to give an exemplar detailed textual analysis of an advertisement that learners could use as a guide. Your modelled example should evaluate how the advertisement type and persuasive technique was applied in order to appeal to the target audience.

For learning aim B, your learners need to know how to prepare for the production of an advertisement. They will need to know *where* to research audience information and *how* to source advertising information that will inform their production. In preparation for learners doing this independently you will need to guide them to the relevant sources of such information and model how to analyse the research and use it to make preparations for producing an advertisement. You can find relevant information for delivering B1 content on the websites of organisations such as the Broadcasters' Audience Research Board (BARB) and Radio Joint Audience Research (RAJAR) or through companies who provide audience information directly to advertisers. Make use of advertisers' information packs that most publications will send to you on request.

An effective way of delivering the content of learning aim B would be through a portfolio of exemplars whereby you guide learners through the research and preparation process for creating an advertisement. This would provide a useful way of modelling the actual process of sourcing and preparing all the content and materials for an advertisement prior to learners working independently. By breaking the exemplar portfolio down into sections dealing with the B1, B2, B3 and B4 content, you could deliver the knowledge of *what* needs to be done to prepare an advertisement and also model *how* to perform those associated tasks. The portfolio could be based, for example, on the preparation for an advertisement for a soft drink. Once learners have understood the preparations associated with this advertisement, you could then set them tasks to show the process of preparation of advertisements across different media sectors. You could ask the class to create displays to illustrate the associated tasks for preparing the text, visuals, audio and interactive materials. Ideally, you would get a representative from an advertising company to come in to talk to your learners about how to undertake the necessary research to prepare and produce adverts. You could also make use of the wealth of 'How To Make An Advertisement' tutorials available on video-sharing websites. The good ones will always have a section outlining the essential preparations, such as audience research. There are plenty of examples of adverts that have been misunderstood by audiences. Asking learners to research these would be a good way for them to understand the concepts of 'dominant', 'preferred', and 'oppositional' readings of advertisements by audiences.

Before starting learning aim C, learners should know the stages of production for advertisement productions, and have the knowledge and technical skills to produce their own advertisement. When delivering this learning aim, you should first model the processes by creating a real advertisement as an exemplar. It would make sense for this to be the same advertisement that you covered in the exemplar portfolio for the delivery of learning aim B. Through modelling of an exemplar, you can deliver the C2 and C3 content. You could then provide additional skills workshops for the technical skills and integration of elements according to the different sectors. There is a wealth of tutorial videos on video-

sharing websites that would be useful for delivering this content across all the different media sectors. Ensure that learners have sufficient time to develop and practise the technical skills necessary for advertisement production. Also, ensure that learners understand how to apply the codes and conventions of advertising to their own productions. Prepare them for this by signposting, in your modelled example, how you have adhered to the codes and conventions. You could create a checklist for learners to ensure that they have properly taken into account all the considerations in the C3 content.

Ideally, learners should gain first-hand experience through a work placement at an advertising production company. If this is not possible, try to find an advertising company that would be willing to engage with your learners through Skype or email.

Learning aim	Key content areas	Recommended assessment approach
A Understand the codes and conventions of advertising production	**A1** Advertising by sector **A2** Target audience for advertisements **A3** Advertising codes and conventions **A4** Advert types and persuasive techniques	Textual analysis of existing advertisements. An audio, visual or written presentation, analysing the codes and conventions of advertising production, with illustrative examples.
B Prepare material for an advertising production	**B1** Source audience information **B2** Source text, visual, audio, interactive material **B3** Preparation of text materials **B4** Preparation of visual materials	A written, audio or visual proposal of learners' ideas for an advertisement. A portfolio of evidence of the sourcing and preparation of materials for the advertising production. The portfolio should include annotated research notes, mock-ups, sketches, drafts.
C Produce an advertisement for a specific digital media sector	**C1** Media sectors and formats for advertising **C2** Advertisement production stages **C3** Applying codes and conventions in advertisement production	File of complete advertisement.

Assessment guidance

This unit is assessed internally. The evidence for learning aim A needs to demonstrate understanding of the codes and conventions of advertising production. It is recommended that this be shown through a detailed textual analysis with illustrative examples from advertisements. The learner may choose to deliver this evidence in written, oral or visual format, as long as the format chosen allows for a detailed analysis. Copies or links to advertisements that were analysed by the learner must also be included. For learning aim B the learner must produce a written, visual or audio proposal of their idea for an advertisement followed by a portfolio of evidence of the sourcing and preparation of all the materials and content for their advertisement. This portfolio of evidence could be electronic in format (e.g. a blog), or a hard copy. For learning aim C, learners must produce the final completed advertisement in the appropriate format for the chosen sector (e.g. a printed copy for a print-based advertisement, a link to the advert for a digital format or a DVD copy of a video advertisement).

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 15: Advertising Production

Introduction

This unit will enable your learners to develop their understanding of the techniques applied to advertising production, allowing them to apply that knowledge through the preparation and production of their own advertisement.

Learning aim A – Understand the codes and conventions of advertising production

Learning for this part of the unit must focus on knowledge and understanding of the codes and conventions of advertisements. You should show learners how to deconstruct advertisements so that they can understand how to apply the techniques for themselves.

● Introduce the unit with a 'show and tell' of advertisements. Display a range of advertisements from across all media sectors and allow your learners time to look, listen, touch and interact with them on TV, radio, tablets, phones and computers. Then ask learners to tell you about memorable adverts (current or from the past). Use this show and tell as the starting point for an introduction to the more formal way of deconstructing advertisements through looking at advertising codes and conventions, advert types and persuasive techniques.

● Use infographics to help learners understand audience classification and create tasks based on identifying the target audience for adverts.

● Ask learners to create an advertising journal in which to record all the adverts they see/hear over the course of a week (across all sectors). Then ask them to deconstruct the adverts that they feel were directly targeting their geographic/demographic/ psychographic profile. How were those specific advertisements constructed to appeal to them, and where were they distributed to reach them?

● You could get an advertisers' information pack for a UK magazine publication. Ask learners to read and analyse the data provided in the pack and then ask them to look at the advertisements in the magazine itself. Ask learners to create presentations, in small groups, to explain how their selected advert from the magazine would appeal to the target audience for that magazine.

● You could ask learners to research Gunn's 12 advert types and then find examples of advertisements to match his types.

● You could set a whole class activity to produce a class display showing examples of adverts. Ask learners to annotate the adverts on display with codes and conventions/type/form/style/persuasive technique.

● You could give learners an exemplar of a detailed textual analysis of an advertisement. Set tasks for them to practise writing textual analysis of adverts using your exemplar as a guide.

● In particular, learners should consider the ways in which their research will inform their own advertising productions in the next learning aim.

Learning aim B – Prepare material for an advertising production

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of advertising campaigns that they carried out in the first learning aim in order to inform their own advertising productions. As such, you should take a holistic

approach to the delivery of these learning aims. Here, you must enable learners to prepare the materials required for an advertising production. Your delivery should focus on knowledge of the research that they will need to undertake into the target audience, and the sourcing and preparation of text, visual, audio or interactive materials that they may use.

- Start your delivery of this learning aim with a Q&A session to establish existing knowledge of how media audience information is gathered. Relate this to other units of work that they have already studied for this qualification. Ask them if any of their existing knowledge can be applied to advertising.

- From here, deliver the required content from B1. Use the advertisers' information pack that you used in learning aim A to look at the type of audience information available to advertisers. Ask learners to research other sources of audience information and model how to analyse this data as preparation for creating an advert to target a specified audience.

- You could give learners a portfolio exemplar based on producing an advertisement for a soft drink. Use this portfolio to demonstrate to your learners the process of preparing for the production. Using the portfolio, model how to research the audience for the advert, how to select the most suitable advert type for the proposed audience and how to meet the requirements of the brief. Next, model how to source and prepare all the content for the advert and how to make and amend drafts.

- Run workshops where you demonstrate how to use the appropriate technical skills to prepare the print advert.

Learning aim C – Produce an advertisement for a specific digital media sector

Learners will need to produce an advertisement for a digital media sector. They will need to know (1) how to correctly follow the production processes and (2) how to apply the codes and conventions of advertising production from their chosen sector to their own advertisement. In your delivery of this learning aim, you need to ensure that you clearly demonstrate how to perform the necessary tasks and give opportunities for them to practise the skills.

- Start by demonstrating the production process for the creation of the soft drink advert. Use the same scenario from the portfolio in learning aim B. Move through the production stages, and, at each stage, give demonstrations, exemplars or models to show your learners how to perform that task (C2 content).

- You could then set additional practice tasks that ask learners to reproduce or create a similar example based on your demonstration.

- Ask learners to present these practice examples to the class and, as a group, identify how to improve the production by means of constructive feedback.

- You could give a tutor-led presentation to the class that illustrates how the work that you have produced for the soft drink advert follows the codes and conventions for digital magazine advertising. Give details of the tools and techniques you applied to ensure that these codes and conventions were followed.

- Set tasks for learners to practise the creation of advertisements for different media sectors, ensuring that they follow the appropriate codes and conventions.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 4: Pre-production Portfolio*

- *Unit 10: Film Production (Fiction)*

- *Unit 11: Radio Production (Fiction)*

- *Unit 14: Digital Magazine Production*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Dyer G – *Advertising As Communication (Studies In Culture and Communication)* (Routledge, 1982) ISBN 9780415027816 – This book is widely regarded as the definitive guide to the history of advertising. It covers the fundamentals of advertising and provides good illustrative examples.

- Williamson J – *Decoding Advertisements: Ideology and Meaning In Advertising* (Marion Boyars, 2010) ISBN 9780714526157.
  This book is useful for showing how to deconstruct the meaning of advertisements.

Videos

- https://www.youtube.com/channel/UCOxFrKa0ap-tHPiknUkcy9g – This YouTube channel from Gideon Shalwick provides a wealth of useful video tutorials for creating video advertisements. He covers the technical aspects, with useful and practical tips for making video advertisements on a low budget, and also covers advertising techniques.

- https://www.youtube.com/watch?v=DSQzDmyiRNc – A useful tutorial that details how to create an advertisement. It applies many of the key terms relevant to this unit.

- https://www.youtube.com/watch?v=193eNBHaGDg – This is another useful 'how to' tutorial, specific to online advertisements.

- https://www.youtube.com/watch?v=UWM0OidKo3o
  This shows videos of the Channel 4 show *100 Best Adverts* from 2003 and is useful for giving students a historical perspective to advertising.

- https://www.youtube.com/watch?v=WVj389dsd6o
  Charlie Brooker gives a very tongue in cheek and abrasive evaluation of the sector in his *Screenwipe* show from BBC 3. This is useful to begin discussions on the ethics of advertising.

Websites

- http://www.adweek.com/ – This is a useful website from an organisation that analyses all forms of advertising and offers 'best of' examples. They have also produced examples of adverts that follow Gunn's 12 Advert Types. See also http://www.adweek.com/fishbowlny/donald-gunns-12-types-of-tv-advertising/274834

- http://www.barb.co.uk/about-us/barb-for-students?_s=4 – The Broadcasters' Audience Research Board. This 'for students' section of BARBS's website provides good information and links for those learners researching TV audiences.

- http://www.rajar.co.uk/ – Radio Joint Audience Research is the official body in charge of measuring radio audiences in the UK. This is a useful source of information for researching audiences for radio advertisements.

Unit 16: Factual Production

Delivery guidance

Approaching the unit

This unit is an optional unit, which will be assessed internally. The unit seeks to assess the learners' knowledge and understanding of factual production, and to develop and assess the creative technical skills used to produce their own factual production. Like all media productions, factual programmes follow common codes and conventions and learners will need to understand what these are before they move on to the production of their own factual programme. For this unit, learners will need to know the essentials of preparing for factual productions, namely, the correct procedures to follow to ensure that their facts are sourced, checked and verified appropriately.

In your delivery of this unit you should ensure that your learners watch and listen to a wide range of factual productions to familiarise themselves with their codes and conventions and to become confident in identifying their features.

Delivering the learning aims

The delivery of learning aim A should focus on providing your learners with an understanding of the distinguishing features of factual programmes. Your learners will use the knowledge and understanding from this learning aim to inform their preparation, and then production of, their own factual programme. With this in mind, you should focus on showing lots of examples of factual programmes and deconstructing their codes and conventions. Looking at TV and radio listings is a good way of initially showing to your learners how 'factual programmes' are categorised. This could be developed into a more detailed examination of the codes and conventions of those programmes that are identified as factual. Having a pre-prepared bank of examples from factual programmes that illustrate the codes and conventions would be a good way to deliver the A2 content. Learners could then be asked to find additional examples to demonstrate their understanding of these codes and conventions. For A3 content, you should ensure that learners are shown examples of *all* the formats of factual programmes. It is not essential, or time-efficient, to screen whole films, or episodes in class, so you would need to select the best clips to illustrate the distinctive features of that format. An edited tutor presentation with embedded clips or links to examples would be a useful way to deliver this content. You could use examples of mainstream documentaries; Louis Theroux, Michael Moore and Nick Broomfield have all produced documentaries that learners at this level usually enjoy watching. Bear in mind that your learners are not expected to produce a feature length documentary for their own production, so be sure to also show plenty of examples of short factual clips/segments that form part of the whole content of TV or radio shows. With this in mind, it would be useful to also show examples of amateur factual productions that can be sourced from video-sharing sites such as Vimeo or YouTube.

The A4 content provides the essential knowledge of the legal and ethical issues relating to factual productions, and your learners must understand how these issues impact on the creation of factual programmes. Use sources that present and explain these issues in an accessible format, or edit the information yourself

so it applies directly to factual programme production. There are websites such as Desktop Documentaries that will put these legal and ethical issues into a production context for you. The controversy surrounding the *Benefits Britain* documentary series would provide a good case study for exploring the issues of bias and impartiality for factual productions.

For learning aim B, your learners will need to understand the tasks and responsibilities associated with the preparation of materials for a factual production. In preparation for this, it would be useful to model the process: give an example brief and demonstrate how to propose an idea that meets its demands, alongside a consideration of the legal and ethical issues. For the delivery of B1 content, you can source proposal templates online, and the BBC website provides a clear breakdown of their editorial guidelines. To deliver B2 content, it would be useful to use a case study example. You could provide an example of a factual programme and then break it down to show your learners all the primary and secondary source materials that would have been needed for the factual content. You will need to show your learners where media professionals source archive materials, and where to find suitable primary and secondary sources. Organisations such as the British Film Institute provide film archives. Creative Commons licensed materials for student use can be easily researched online.

Your delivery for B3 should focus on showing your learners how to prepare sourced materials. Ideally, you should invite a media practitioner to attend a lesson to talk about the process of sourcing and preparing the materials for their factual media production(s). If this is not possible, try to find a student from a film school or higher education who would be willing to come in and share their experiences. Allow your learners time to practise the skills linked to preparation of materials.

In learning aim C, learners should develop the knowledge and technical skills to carry out all the associated tasks for producing their own factual programme. When delivering this learning aim, you should first model the processes by creating a factual production as an exemplar. For example, you could create a five minute sequence about cyber-bullying to be used in a current affairs TV show. Through this modelling process, you can deliver C1 content. You could then provide additional skills workshops for any of the technical production skills that were not demonstrated through your modelled exemplar. Make use of the wealth of video-sharing website video tutorials for showing examples of how to perform the production techniques (do a search: 'how to film an interview'). Once you have covered the content from C1, learners could access these tutorials for themselves to further develop their knowledge and skills. You will need to spend time demonstrating how to edit footage and sequences for narrative clarity. You should ensure that learners have sufficient time to develop and practise the technical skills necessary for factual production. You should also ensure that learners understand how to apply the codes and conventions of factual formats to their own productions. Prepare them for this by signposting, in your modelled example, how you have adhered to these codes and conventions.

Ideally, learners should be given an opportunity to gain work experience with a media production company to see factual programme production first hand. If this is not possible, try to find a blog or website that charts the production of a factual production. There are many aspiring film students out there who document their work in this way, and it would provide a useful teaching tool for this learning aim.

Learning aim	Key content areas	Recommended assessment approach
A Understand the codes and conventions of factual programming	**A1** Factual programming by sector **A2** Factual programming codes and conventions **A3** Formats of factual programmes **A4** Legal and ethical issues relating to factual programming	A report that details the findings of an investigation of the codes and conventions of factual programming.
B Source and prepare materials for a factual programme	**B1** Develop ideas for a factual programme **B2** Source material for a factual programme **B3** Preparation of content	An audio, visual or written proposal with annotated evidence of ideas generation. A portfolio of evidence of sourcing material and preparing content for a factual programme.
C Produce a factual programme for a digital media sector	**C1** Apply codes and conventions of factual programme production	A finished factual programme.

Assessment guidance

This unit is assessed internally. The evidence for learning aim A needs to demonstrate understanding of the codes and conventions of factual productions. It is recommended that this be shown through a detailed textual analysis with illustrative examples from more than one factual format. The learner may choose to deliver this evidence in written, oral or visual format, as long as the format chosen allows for a detailed analysis. Links or screenshots to the programmes or clips that were analysed by the learner must also be included. For learning aim B, the learners must produce a written, visual or audio proposal of their idea for a factual programme followed by a portfolio of evidence of the sourcing and preparation of all the materials and content for their production. This portfolio of evidence could be electronic in format (e.g. a blog) or a hard copy. For learning aim C learners must produce the final completed programme or segment in the appropriate format for the chosen sector (e.g. DVD copy of a filmed segment or MP3 file for an audio recording). The factual production that your learners prepare and produce for assessment should be between five and ten minutes in duration. It is not expected that learners at this level produce feature length documentaries. A short segment/clip for inclusion in a factual programme is appropriate, as long as the stand-alone segment or clip is complete and makes narrative sense in its own right when viewed or listened to in isolation.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 16: Factual Production
Introduction
This unit will enable your learners to develop their understanding of the codes and conventions applied to factual production, and allow them to then apply that knowledge through the preparation and production of their own factual programme.
Learning aim A – Understand the codes and conventions of factual programming
- Start by assessing what your learners already know about factual programmes. Run a diagnostic Q&A session to see if your learners can name any factual programmes on TV or radio, or any factual films. Brainstorm their responses and ask learners to think more closely about the format and distinctive features of these examples.   - Ask learners to create a class display to identify and illustrate the codes and conventions of factual programmes (TV, film and radio). Use screen shots from the programme and add QR code links to short clips to illustrate the points.   - Use the Pinterest website to create class Pinterest boards for each of the formats of factual programme.   - Browse the 'knowledge' section of audio recordings on the AudioBoom website. Ask learners to listen to an example and pick out five facts included in the programme. Model to your learners how to check and verify those facts. Listen to another factual audio recording from the site and pick out five new facts. Ask learners to use the methods you modelled to check and verify those new facts for themselves.   - Deliver a tutor presentation of clips of all the different styles of documentaries and identify their key features for learners. Model how to analyse the codes and conventions using one of the clips. Set learners a task to write an analysis of the codes and conventions from one of the other clips. Alternatively, learners could create a voiceover commentary for the clip.   - In particular, learners should consider the ways in which their research will inform their own factual programmes in the next learning aim.
Learning aim B – Source and prepare materials for a factual programme
Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of factual programmes that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.
- Give an example of a brief for the production of a segment to be included in a factual TV programme. Model to your learners the process of generating a proposal which should include: - the proposal – subject idea, format, genre, style, audience, programme purpose and budget   - the legal and ethical considerations – releases and permits for filming in public, clearances and permissions to use copyrighted material, privacy, libel and defamation and editorial guidelines appropriate to the format.

- Next, model to your learners how to source the materials needed to produce the proposed programme. Show them how to access archived materials, how to find suitable interviewees, how to check if you can use materials, etc.

- Now set tasks that require learners to find primary and secondary sources for a factual production. They should record the research they undertook and justify why it would be a suitable source of material for the programme.

- Create a class display entitled 'Sourcing Materials'. Ask learners to add content to illustrate sources and add links to access those sources.

- Create another class display entitled 'It's A Fact'. Task all learners to add a fact to the display that they have researched, checked and verified. They must credit all their sources for the fact they provide.

- Invite a guest speaker to attend a lesson to talk through their own experience of sourcing and preparing materials for a factual production. Learners should generate questions to ask and write up their notes after the talk as a case study example.

Learning aim C – Produce a factual programme for a digital media sector

- Start by modelling the production of a segment for a factual programme for your learners. Give demonstrations of how to carry out the production techniques. You could divide these up into the following skills workshops:

  o filming – general views, interviews, cutaways, graphics, scripted pieces to camera, studio, location and public space

  o sound – ambient sound, wild track, interviews, presenter's descriptions, studio sound, music and song links (radio)

  o application and suitability of audience mode of address – direct to camera or omniscient

  o editing – creating narrative, conveying meaning, illustrating topic and crediting sources.

- Provide links to additional sources of demonstrations of these production techniques e.g. YouTube videos.

- Set mini practice tasks for your learners – ask them to film an interviewee and then practise editing into the footage (e.g. a nodding head response).

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 4: Pre-production Portfolio*
- *Unit 10: Film Production (Fiction)*
- *Unit 11: Radio Production (Fiction)*
- *Unit 17: News Production*
- *Unit 22: Interviewing Techniques*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Hampe B – *Making Documentary Film and Videos*, *Second Edition* (Henry Holt & Company, 2007) ISBN 9780805081817.
  This is a practical guide to planning, filming and editing documentaries. It also provides a useful section on the features of the documentary format.

- Kishan Thussu D – *News As Entertainment: The Rise Of Global Infotainment* (SAGE Publications Ltd, 2009) ISBN 9780761968795. This book explores the rise of infotainment as a genre of factual programming.

Videos

The Nick Broomfield Documentary Collection (DVD). This is a box set of documentaries from one of the most admired documentary filmmakers.

- Louis Theroux: The Collection. This provides examples of the reflexive style of documentary.

Websites

- https://audioboom.com/ – This is an excellent source of audio recordings. Tutors could use this site to provide examples to learners of factual audio productions. Learners could browse the site for ideas for their own audio productions.

- http://www.bbc.co.uk/guidelines/editorialguidelines/edguide/accuracy/factchecking.shtml – This site provides clear details of the BBC's editorial guidelines for fact-checking.

- http://www.desktop-documentaries.com – Desktop Documentaries is a dedicated website for documentary filmmakers providing a wealth of relevant content for this unit. It has an especially good section that details the legal/copyright issues (see link below).

- http://www.desktop-documentaries.com/copyright-issues.html – Desktop Documentaries is an excellent resource that details the legal/copyright issues for documentary film-making. It is ideal for delivering A4 topic content in learning aim A.

- https://stevebuttry.wordpress.com/2010/10/28/tips-on-verifying-facts-and-ensuring-accuracy/ – This is a blog entry written by the Director of Student Media at LSU's school of Mass Communication. This provides a very clear explanation of how to ensure accuracy. He provides many illustrative examples, which would be useful for learners.

- http://topdocumentaryfilms.com – This is a useful resource for researching examples of documentaries.

- http://www.theguardian.com/commentisfree/2014/feb/22/benefits-street-tv-programme-divided-the-nation – *The Guardian* newspaper: Decoding *Benefits Street*. This is an excellent article that touches on many of the issues related to balance and impartiality in factual programming. It also discusses media theory in relation to the *Benefits Street* documentary.

Unit 17: News Production

Delivery guidance

This unit is appropriate to and intended for the production of news content for television, radio, newspapers and websites. The three learning aims first examine the nature of news and the issues surrounding its production. Having selected a news medium, learners will need to prepare news material appropriate to the targeted medium and then produce a news media product. The product may be a TV bulletin, a radio news broadcast, a front page of a newspaper or a web page for an online news company. News content evidence will be in a print-ready form, but not actually published or broadcast.

Approaching the unit

The main focus of this unit is the nature of news and news production. The medium of output is of secondary importance, although the conventions of each medium must be adhered to in the production of the material for output.

Delivery will be driven by demonstration and example of existing practice. There is no scope for experimental news production. Delivery should, as always with vocational units, be 'hands-on' and you will demonstrate to learners how to undertake a range of tasks. Reinforce learning by setting practical tasks. Encourage learners to take notes in a form that will be useful to them as reference documents, rather than simply writing down notes verbatim from a marker board.

News is all around us and you can key learners into this by encouraging them to engage in news debates. Encourage them to analyse newscasts in different media rather than passively consuming news. Engage learners' interest in the news output that is current while they are working on the unit. News is only news when it is current. Trying to synthesise news output based on past news is far less interesting or motivating, so engage learners' interest by listening to news bulletins as they are broadcast or as they are published, in the classroom. Then let learners pick it up and run with it.

Delivering the learning aims

Learning aim A is about understanding news, formats, types, audience, practice (how to do it) and sources. It will take up the main body of delivery time. Select the medium you intend to use, according to the pathway being studied. Bear in mind that if, for example, your programme is for television, your learners will focus on learning practical television skills and how to use TV equipment. To then compel them to learn radio news production skills would be burdensome.

In terms of news types and audiences for each type, encourage analysis of the differences between national, regional and local bulletins. Get them to consume some world news material and get a consensus of interest levels that relate to the 'nearness' to the news content. You should find that, generally, the more local the news, the more interested they will be. Encourage learners to discuss their own family news consumption habits (Which news does Dad consume? Which news does Mum consume? What about siblings?).

Get your learners to look in further depth at the relative perceived importance of different news stories. This is often determined by where stories appear in the

running order of the programme, or their relative position on the printed or web page. Have a discussion about why this should be. Ask the question: Why is there just enough news every day to fill the same amount of time or space in the news programme or newspaper/website? Is there any news 'left over' that does not get broadcast or written about? What (or who) determines which news items to include, and which to leave out? This is usually the point at which learners start to get a feel for the real issues in news production, i.e. that there is someone controlling what we see, hear and read, and that this person might be trying to persuade us to have a particular view. Introduce the use of emotive and persuasive language in constructing a news story. Suggest that there may be a specific agenda driving it. The agenda may vary, depending on which company, business, political party, etc. has the most vested interest in the reader/consumer forming a particular view, or drawing a specific conclusion.

This discussion will lead learners into investigating where a news story comes from in the first place, and to the issue of asking 'How do we know this is true?'. Produce examples of stories with clear origins. Hold a question and answer session about how to get a news story published or broadcast.

When learners have investigated the news industry and how it it works, they can start to find their own news stories. For learning aim B, they need to learn about the various skills related to preparing and gathering material: that is, interviewing, writing the story and subediting.

Interview techniques can be practised in the classroom first by getting learners to work in pairs. Give each pair a list of questions (pre-prepared either by you or by other members of the class). Each learner should interview their partner and then reverse roles. Outcomes will be better if learners do not work with their closest friends. Learners can record their interviews, if audio recorders are available, and then play the interviews back to the whole class for comments. Let learners do the interviews first and then provide input about preparation, interview style, questioning and guiding interviewees' responses to questions. Doing it this way enables you to give more constructive feedback rather than simply telling learners what to do and what not to do before they start. It will also be more engaging to learners. Round this off with a demonstration of how to conduct an interview professionally. Invite a guest speaker from the local newspaper, radio station or similar to emphasise best interview practice.

All news stories have to be written, and the questions that interviewers ask during broadcasts also need to be written in advance. What learners may not realise is that, prior to many TV or radio interviews, the celebrity or politician being interviewed is sent a list of questions so that they can rehearse their answers.

The difference between the written word for reading and the written word for delivering a news bulletin is significant. Learners need to be aware that the language style of news writing differs according to whether it is to be spoken or read, and it is different again from the language style of, say, a novel. News copy that is read without accompanying pictures, either moving or still (i.e. for radio), is different from news copy spoken to accompany an image. For radio, more description is required.

When tackling the issue of how to frame a question, learners often underplay the extent of their existing skills. What teenager does not know how to ask a parent for extra money or a new pair of trainers? Tap into these existing skills with exercises on how best to frame a question so that the interviewer gets the information needed from the response. Then shift the focus to how the interviewer can get the required response (or, if you like, making the respondent tell the interviewer what they need to know). There are some very good examples on radio and television of news people who know how to wring an answer out of an interviewee (usually a politician). If the topic is relevant to learners (e.g. university fees, the school leaving age, how to apply for a job etc.) it will engage them immediately.

If learners are covering an event (e.g. an accident or criminal activity) show them that the audience needs to know certain key information immediately. The report needs to deliver this informationd in the first few sentences. Teach learners about the five Ws and H: who, what, where, when, why, how. These are the key items of information that must be present in the opening sentences of any story. Provide examples, such as: At 6:15 this morning (when), a train crashed into a vehicle on a level crossing (what), at Selby on the A19 (where). Witnesses say that the vehicle, a car, had stalled on the crossing (how), because it had run out of petrol (why). There are no reported casualties at this time.

You can easily fabricate events and get learners to write an opening couple of sentences. Give them the 5Ws and the H and get them to construct appropriate openings. They could then expand this into a fully covered story by holding interviews (e.g. with witnesses or emergency services, expert witnesses, such as an engineer or railway representative, police etc.). When learners have completed a story, they should try out the subediting process. Ask learners to swap stories and edit each other's for brevity, clarity and to fit specific word counts or delivery times. News delivery (on TV and radio) is at approximately 180 words per minute, so editing a body of text to fit a time slot is easy. Ninety words is 30 seconds and is also about the time for the average TV or radio commercial. If the news is for TV or radio, get learners to rehearse by reading stories aloud in class. Start them off by reading your own news story. Then divide the class into small numbered groups and ask them to deliver their own stories simultaneously. Ask each small group or individual learner to count to five and then start. It develops into a cacophony of noise and gradually each learner is competing with peers to be heard. Everyone must read their story about three times for the effect to grab hold and, as the confidence builds, so does the clarity.

Evidence for learning aim C will form the culmination of the research and writing that has been the evidence for learning aims A and B.

The media product selected for the news story will dictate the form and writing style used. It is recommended that learners develop stories that match the same pathway, not a different pathway from the one being studied. Whichever medium learners choose, their final product will be a series of stories of descending importance, starting with the most important. Explain the different, writing styles needed for the chosen medium. For example, television has dialogue accompanying moving images, a studio anchor story introduction, then moves to voice-over VT clips and then moves back to the studio anchor. For radio, with no visual imagery to support the stories, the words alone carry the story. A web page or newspaper has still images, cropped to reaffirm the words of the story, and the story is read by the consumer.

Learners need to produce each news story on a separate sheet of paper or as a separate Word file. They need to provide a running order list that shows the hierarchy of the stories. You need to convey the importance of this to learners in the teaching and learning aspect of your work.

A good way to get this across in class is to select a recent television or radio news bulletin, web page or newspaper front page, and spend time analysing it. Get learners to suggest why a particular story is the 'headline' story for that bulletin or page. Get learners to listen to the relative importance of each following story. Suggest to learners that they may have selected a different order. Get them to list their own order and then challenge them to defend their choices.

Explain the gatekeeping role played by the editor in selecting which story will lead and which will follow. Get learners to complete an exercise to reduce the number of stories from their bulletin by 50 per cent, and to prioritise the selected stories according to their view of their importance.

Learning aim	Key content areas	Recommended assessment approach
A Understand news production	**A1** Formats of news **A2** News types and target audience **A3** News practice **A4** Sourcing and verifying materials	A report examining the role of the news in media industries.
B Prepare material for the production of a media news product	**B1** Source copy for stories **B2** Interview techniques quoting source **B3** Writing the story **B4** Subedit stories to final draft	News stories for inclusion in a media news product for television, radio, newspaper or website.
C Produce a news product for a specific media format	**C1** Formatting and editorial **C2** Gatekeeping role of news editorial **C3** Prioritising stories	Edited news stories presented in appropriate page layout or running time for television, radio, newspaper or website platforms.

Assessment guidance

This unit is internally assessed by means of assignments set by the tutor. The maximum number of assignments is three, so it is suggested that each assignment should cover one learning aim. Learning aims should not be split across two assignments.

The report for learning aim A could take the form of a PowerPoint presentation, or a written document. If a presentation to an audience it could be a group effort but caution must be exercised not to spread the load between a group. Each learner must cover all of the content of the learning aim, so no time is likely to be saved by merging the work into a group effort. The report, in whatever form, must include all the listed assessment criteria and discuss forms and styles for different audiences (all plural), but one of each is insufficient. Contrasting forms and styles are easier to differentiate (e.g. tabloid style against broadsheet style and the contrasting audiences for each).

Generating sources for news stories can be daunting, but if you can find some aspects of local or national news that are particularly relevant to your learners (e.g. something happening in your local area or related to their hobbies or sporting interests), they will be more engaged and find the task easier. Learners must produce ideas, source contributors and carry out interviews, for a number of stories. The suggested number of these is three.

It is suggested that the stories be of differing levels of importance, so as to represent the news hierachy in real news bulletins, for example a story about an issue in the learner's locality, a story about an event in school and a story about a local sporting event (if it was a regional or national event, the sports story would sit higher in the heirachy).

Whether the grade awarded for the stories is pass, merit or distinction will depend on the quality and consistency of each story. Full details of the assessment criteria are given in the specification.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 17: News Production

Introduction

This unit is about writing stories, not about broadcasting or publishing them and will therefore focus only on the production of news stories and their prioritisation in the vehicle of consumption. There is no need to film the stories being broadcast in a bulletin, or record them on an audio recorder, or build a web page or a newspaper front page. That is the role of other units and the stories produced here can be used as the material for any of the other units.

Learning aim A – Understand news production

Key areas for inclusion in this learning aim are formats, types of news, how the news is decided each day, news practices, finding stories and getting them verified and the nature and analysis of audiences that consume news.

- Start by showing current news TV or radio broadcasts in class. Have a range of newspapers, or log on to a range of news websites. Play short clips from a range of broadcasts and encourage learners to identify differences in format and style.

  o Ensure that a range of styles is available, for TV, BBC1, BB2, ITV1, Channel 4, Channel 5, SKY. For Radio, BBC Radio 1, BBC Radio 2 BBC Radio 4, Talk Radio, Commercial Radio, Community Radio (music stations and speech stations should be included).

  o For newspapers, look for broadsheet and tabloid formats (even though papers are not embodied by their layout and form any more: for example, *The Times* and *The Sun* are both physically tabloid papers but they are very different in style with *The Times* being more highbrow and still referred to as a 'broadsheet'). Include *The Times*, *The Sun*, *Telegraph*, *Daily Mirror*, *Express*, *Mail*. For web pages, select news sites that are not reproductions of newspaper, radio or television websites (for example Yahoo news, The real news.com, Google news or Huffington Post).

  o Draw attention to the different language registers of each programme, web page, publication. Get learners to reach conclusions as to why there might be different language registers and different opinions. Draw links between political ideologies espoused in different news products.

- Get learners to visit relevant media consumer websites, to establish in their minds the degree of popularity enjoyed by each different news product.

  o Have a debate about why there are different opinions and why different numbers of people consume each product. Draw links between audience and political opinion and establish audience targeting strategies for each product.

- To introduce news practice, ask learners: 'Why is each news programme or newspaper just sufficient to convey the news of the day'? Also ask: 'Is there a conspiracy to just give the audience enough news of sufficient imagined importance to keep the audience from asking too many questions?' Get learners to ask what is happening and why. Get them into debate about these issues.

- Ask learners 'How do those gathering and writing news stories (journalists) decide what is true, what is valid, what is reliable, in terms of news content?'

- This will move the class on to investigating where a news story comes from in the first place. Ask them to investigate how we know that a story is true. Produce examples of stories of which the origins are clear. Get a question and answer session going about how to get a news story published or broadcast.

- It is assumed that you will stay with one medium throughout the unit. It is not necessary to work on more than one medium. This can lead to over-assessing and putting pressure on learners across too wide a subject area for them to fulfil the rest of the qualification.

- In particular, learners should consider the ways in which their research will inform their own media news production in the next learning aim.

Learning aim B – Prepare material for the production of a media news product

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of news products that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

This learning aim requires the learner to source material for news stories and will include a range of research activities that are primary and secondary, qualitative and quantitative, to validate and authenticate their news stories. If you intend running the assessment for learning aim B and learning aim C in a vocational setting (for example, in a newsroom for television, radio, newspaper or internet news-gathering), you will need to do some planning and organisation. Learners will benefit enormously from this style of approach.

- Before learners start gathering news content, ask them to adhere to an agreed house style and style guide so that they can work in a vocational environment. Every news organisation has a house style (i.e. a set of conventions which the journalists adhere to). Doing this in the learning environment will benefit learners and focus their attention towards producing high-quality work.

  o You might want to adopt one of the existing house styles, available from news agencies, e.g. the BBC style guide is available on the BBC website. Work with your learners to get them to agree to a style for the whole class to follow. Alternatively, put them into groups and give them house styles of different news companies to show the different approaches. This latter option will give learners a taste of the range of house styles that exist in the news industry.

- News stories are often gleaned from talking to, or interviewing people, so you need to give your learners experience of asking well-framed questions that will elicit an answer to their enquiry, rather than allowing themselves to be diverted by a difficult respondent.

  o Get learners to formulate open questions on any topic of their choice and send them out to interview members of staff, students etc. Learners could then discuss, in class, their respondents' responses and their approach to the interview task.

- Using the content that has been gathered, start learners off to construct stories, using a structure appropriate to the medium, target audience etc. Allow them to get the feel of putting their findings into a form appropriate to the news medium they are working in.

  o Get learners to start their stories using the 5Ws and H (what, why, when, who, where, how) in the first couple of sentences and to elaborate accordingly. It

might be useful to remind learners by playing or reading news stories out in class before they start.

● News stories usually start with a tip-off through the many contacts available to a news service. If there is an opportunity to emulate this practice, by looking at breaking news items on 'the wire' and then sending learners out to conduct their interviews about real events and happenings it will give a sense of realism to their work. The 'wire' can be replicated by using one of the local news feeds that are available via the internet, which are often the source of news for both national and local news media (Reuters News RSS feeds at: http://uk.reuters.com/tools/rss is one source).

● When stories have been gathered, remind learners that they need to subedit their material. They need to proofread for spelling, grammatical and ethical purposes and they may need to cut material or extend it to fit a predetermined slot in the schedule or on the page. Remember to point out that ALL content has to fit a specific space.

  ○ There is seldom scope to simply 'run off at the mouth' without any limit being put on word count or column centimetres. The last time this happened was probably the death of Princess Diana (a totally unprecedented event in news history).

  ○ Explain to learners that their stories have to fit into predetermined slots and that the purpose of this is to maintain the 'balance of news' within the news product (according to the house expectations of the product editorial).

  ○ Organise learners into groups and ask them to exchange their news story copy with each other. It is often best to do this anonymously, to avoid embarrassment if there are any dyslexia issues or if learners are self-conscious. The idea is to give opportunity for subediting, not to find out who can and cannot write or spell. Some examples could then be read out without disclosing the writer's name.

Learning aim C – Produce a news product for a specific media format

This learning aim can be illustrated using the stories generated for learning aim B in both teaching and learning and in the assessment. Remember that learners must not use classwork for the assessment. The main focus here is the structure of the news bulletin, whether television, radio, newsprint or web based. Remind learners that they need to make decisions about the format and editorial overview of the news content. Put learners into a real-world context. Remind them that journalists produce stories according to strict guidelines laid down by their employers. They do not decide the guidelines or write on a whim. Tell learners they are emulating industry and need to have guidelines in place. If you wish, give them a choice of broadsheet or tabloid approach, sensationalist or neutral delivery, but ensure that they stay within the guidelines.

● Using the stories they produced in learning aim B, get learners to look at how they will fit in a newscast, or on a page (as preferred). Bear in mind that the writing style is determined by whether the stories are read from the page (accompanied by cropped still images), or heard (possibly accompanied by moving images).

  ○ Get learners to decide on the level of priority and prominence to be given to each story and to justify their decisions. Ensure that there are more stories than can be used in the particular news product being made.

● Start a debate about the values of the stories in terms of news and the target audience. Get learners to stand back and realise that they are, in fact, acting as gatekeeper or 'censor' in deciding which news is going to be consumed by their audience on that day.

- o This should start to develop into a real understanding of how news is manipulated in the same way as stories in the latest soap opera. This can form a comparison that will make some sense. Some learners may be more interested in soaps than news! However, the principles are the same and the comparison may bring home to learners that while soaps are fiction, news is real and should be taken more seriously by news companies than it sometimes appears to be. When stories have been subedited and formatted according to the editorial stance of the house style, they can be prioritised according to the house style and by custom and practice across the piece.

- Remind learners that it is common to have stories in the order of priority: international, national, regional, local, sport, humour (to finish).

- Also remind learners that stories will have to be given a specific treatment, for example: human interest, impartial, informational, condemnatory, derogatory etc. Each type of story has its own place in a news bulletin or on a page.

- Engage learners with these different story treatments or approaches, ensuring that they understand that many news producers are biased in favour of one or other view (e.g. a political view).

  - o Get learners to prioritise their stories according to different biases.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 4: Pre-production Portfolio*
- *Unit 16: Factual Programming*
- *Unit 19: Scriptwriting*
- *Unit 22: Interview Techniques*
- *Unit 26: Writing Copy*
- *Unit 25: Sound Recording*
- *Unit 38: Sound Mixing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

A range of examples of pre-recorded news bulletins, programmes, newspapers and web pages can be built up over a period of time and used as examples in lectures and workshops. As most (but not all) news broadcasts still follow the 'on the hour and half-hour' convention, it is relatively easy to record them. A facility to listen to radio, watch TV news, either live or on demand via the internet should be available. This activity can be carried out by class groups in a computer suite.

Learners will require access to a computer and the internet. Computers should be loaded with appropriate word processing software. Facilities should also be provided for learners to record on location using portable digital audio recorders when conducting interviews. All learners will need to replay sound material from recorded interviews.

Textbooks

- Beaman J – *Interviewing for Radio* (Routledge, 2000) ISBN 9780415229104. This book is invaluable for planning and undertaking interviews and not just for radio.

- Beaman J – *Programme Making for Radio* (Routledge, 2006) ISBN 978 0415365727. This is a wide-ranging book covering all aspects of radio programming.

- Boyd A – *Broadcast Journalism* (Focal Press, 2008) ISBN 9780240810249. This book provides a wide range of relevant coverage for both radio and television news.

- Chantler P and Stewart P – *Basic Radio Journalism* (Focal Press, 2003)
  ISBN 9780240519265.
  This book is about the grass roots of radio news.

- Emm A – *Researching for Television and Radio* (Routledge, 2001)
  ISBN 9780415243889.
  Research is ever-present and important in all aspects of news.

- McLeish R – *Radio Production, 5th Edition* (Focal Press, 2005)
  ISBN 9780240519728.
  This radio book has chapters on news.

- Rudin R and Ibbotson T – *Introduction to Journalism* (Focal Press, 2002)
  ISBN 9780240516349.
  This book focuses on print journalism.

- Spark D – *Investigative Reporting* (Focal Press, 1999) ISBN 9780240515434.
  This book is appropriate for all types of news that investigates the
  background to what is happening.

Unit 18: Storyboarding for Digital Media

Delivery guidance

For this internally assessed unit, learners will need to be introduced to the often complex discipline of storyboarding. Study of this unit will provide them with an understanding of the skills and processes involved in the creation of these essential pieces of pre-production planning documentation.

Learners should be able to explore a range of different types and styles of storyboard from different media sectors, such as television, film, games and web design – all of which have their own distinct forms and content. While it is important for learners to explore a range of formats, the overall focus should be on storyboards relevant to their specialist subject area.

Learners will be required to produce storyboards for their own productions and should be given opportunities to build their skills through practice and application. Learners will be expected to build on their skills at every opportunity throughout the course, allowing them to gain the experience required to become a member of a production crew, or to continue to higher level studies in their chosen specialist area.

Approaching the unit

Learners should be encouraged to apply their skills to their own production work at every opportunity. While initially it may be necessary to provide a stimulus/artistic exemplar work for learners to work from, such as scenes from an existing film or television programme, eventually learners should apply their skills to their own creative activities.

You should give learners access to a wide range of resources on which to practise storyboarding techniques. These could be online or paper based, and learners should be encouraged to produce drafts of their work on which to practise their ideas and techniques. Appropriate online design packages or art materials will allow for the completion of designs and visual content.

Any storyboards produced on digital platforms should be printed out in colour and displayed and/or mounted appropriately.

Delivering the learning aims

At the start of your delivery of learning aim A, learners should be introduced to the concept of storyboarding and you will need to outline and explain to them, in detail, why and how storyboarding is used within the creative media sector. While some learners may have some experience of storyboards from previous studies, it is unlikely that they will have explored a range of contexts or mediums within which these are used.

In the first instance, learners should be shown different types and styles of storyboard, allowing them to explore a range of concepts, art works, layouts, designs and content. Each sector will have both similar and differing approaches to storyboarding and these should be identified and explored in detail so that learners become familiar with these forms of documentation.

It would also be beneficial for learners to see some 'live' examples of storyboards and how they were used in a specific production – that way learners will be able to see how the documents were actually used by professionals to create a completed media product. Again, it would be beneficial to explore these from a range of sectors, wherever possible.

Learners should be encouraged to make notes and even annotate copies of storyboards, allowing them to generate material from which to produce their assessment evidence. Independent research and investigations into the history and development of storyboarding types and techniques should also be encouraged.

For learning aim B, in which they will need to explore storyboard skills, learners must first be taught the appropriate skills through a range of tutor-led, practical activities. There are a number of skills and techniques that learners will need to develop, and they will need to learn to take a thoughtful, logical and systematic approach to their work. Storyboarding requires a mixture of artistic and technical skills and knowledge, which must be applied together to create a completed, working document.

Creating draft documents using templates and pro formas will probably be the most appropriate method for allowing learners to practise their skills. A set of prompts or guidance notes could also be provided as an aide-memoire while learners get to grips with a range of new concepts.

For learners with more limited creative or artistic skills, it may be beneficial to give tutorials or online/computer-based templates on which to work. It is not a learner's artistic ability that is being developed or assessed, but rather their skills in mapping scenes for the production crew; it is therefore important that a lack of artistic talent does not become an impediment to learner achievement.

The main focus of this unit is for learners to gain the skills required to produce suitable pre-production materials for use in a range of mediums. When producing work for learning aim C, it is essential that learners are producing storyboards that will be used not only in their own specialist subject area, but in any area in which storyboarding is perceived to be an essential part of the pre-production process.

It will also be important for learners to show that they have planned carefully for the production of their storyboards and that they have a clear focus from concept to completion. They should keep all of their source and draft materials as evidence of these processes, and should submit them along with their final assessment evidence.

Learners should be encouraged to keep a creative journal or log of their ideas and processes in order to assist them in their final reviews of their completed storyboards. Their reviews should be critical and evaluative, both of which can be complex skills to utilise – it would therefore be important for learners to practise these at every opportunity. This could be done through reviewing the work of others such as peers or media professionals.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers or visits to suitable exhibitions). This will also help learners to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Understand the use of storyboards in a range of digital media sector	**A1** Storyboards by production sector **A2** Purpose of storyboards **A3** Features of storyboards	A report on the use and history of storyboarding in different creative media contexts. A range of annotated exploratory materials from secondary sources.
B Explore storyboard skills for production purposes	**B1** Drawing and design **B2** Communication of camera placement, movement, height, level and angle **B3** Sound, edits and transitions **B4** Production purposes	A wide range of exploratory materials evidencing the use of a range of storyboard skills and techniques.
C Create and review storyboards for digital creative media production	**C1** Plan content and layout of storyboards for moving image production **C2** Create storyboards for moving image production **C3** Review storyboards appropriateness and fitness for purpose	Planning materials evidencing rough sketches and annotations on a number of draft storyboards. Final drafts of a number of storyboards to be used in a range of production contexts. Annotated screenshots or written report/PPT reviewing own storyboard production.

Assessment guidance

Assessment of these learning aims will be based on the assessment guidance and grading criteria for the unit. The grading criteria will need to be applied to a range of evidence produced by the learners, which, in this unit, will take the form of both written work and creative ideas, concepts and processes.

When assessing completed storyboards, it is important to consider the fitness for purpose as a working document, and not to concentrate too much on the artistic nature of the content. For example, a learner could produce extremely detailed drawings for their storyboard but fail to competently mark up the actions, shots and edits. It is therefore important to ensure that there is a balance of content within the work being assessed.

Written reports are not the only means of recording assessment evidence for each learning aim, and learners could be encouraged to use visual or audio visual formats on which to record their findings and evidence their knowledge in a particular area, and creative approaches should be encouraged wherever possible.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant section of the qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 18: Storyboarding for Digital Media
Introduction
The work for this unit requires learners to produce a number of storyboards for a range of different mediums. They will need to utilise a range of creative and practical skills and techniques in order to develop appropriate evidence for assessment. It will also be important for learners to show progression of their ideas and processes and to maintain a log or creative journal that will contain all of their notes, drafts and completed storyboards.
Learning aim A – Understand the use of storyboards in a range of digital media sectors
Learning aim A is designed to provide learners with an understanding of the use of storyboards within a range of digital media sectors. They should be able to identify the sectors within which storyboards are used, and understand the purposes and features of these.

- You should introduce learners to a range of different storyboards from different media sectors such as TV, film, documentaries, video shorts, music videos, animation, games and web design. You should ensure that you have a range of exemplar materials to show to the class, either through tutor-led presentations or your centre's VLE. Many of these resources can be gathered from the internet and will often relate to a 'live' product that can also be shown to learners as examples of how planning documents match the end product.

- In order to show the purposes of storyboards, you could discuss with the class the implications of a lack of planning in a production context. Ask learners to think about what storyboards represent (e.g. expressing their ideas visually, including the actions/characters and the sets; technical details such as camera angles, movements and edits; to ease production processes and provide a visual representation of the finished product; to save time during production and ensure efficient outcomes) and which members of the crew rely on them during the production process. Group discussions around the visual nature of storyboards would be beneficial, as would a guest speaker from a media sector that has experience of creating and working with storyboards.

- For A3 (features of storyboards), learners should be provided with a range of blank exemplars, again from different sectors, and be encouraged to annotate them, identifying what elements are missing or need to be added. They should also make notes on why each element (images, camera movements/angles, sound direction, transition and edits) is important for each member of the crew that will be using them. Learners should also remember that storyboards are a way to visualise content on a scene-by-scene basis.

- Layout of storyboards should also be considered, in terms of allowing for ease of use, separating images and directions, ensuring continuity, including page references, and size and format (eight-frame, six-frame, four-frame, single frame, 0, 16:9, 4:3, etc.).

- Once all of these activities have been completed, learners should use their notes and annotated storyboards to write a report about the importance of storyboards across a range of media sectors, all of which can be handed in as evidence for assessment of the learning aim.

- In particular, learners should consider the ways in which their research will inform their own use of storyboard skills in the next learning aim.

Learning aim B – Explore storyboard skills for production purposes

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of the use of storyboards that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, learners will be required to explore drawing and design techniques for use in their storyboards. They will need to understand how to communicate meaning through camera placement and movements (and the importance of these to the camera operator and director), and the use of lighting, sound, editing and transitions.

- It is important that learners undertake an ongoing process of engagement with the skills and techniques required for storyboarding. They will also need to go through a process of drafting and redrafting ideas. You should give learners partial scripts from different mediums. These should be for a scene lasting between one and two minutes. Learners should then be allowed to draft their designs for these scenes using either their own drawing skills or online drawing tools (for which electronic copies of exemplars will be required). Learners should be encouraged to begin by outlining and sketching their ideas before deciding on any final designs.

- Once learners have completed their design work, they should then interpret the scenes and label the camera movements, paying attention to media terminology and using it to notate camera angles, heights, levels and placement. Again learners should be encouraged to experiment with their ideas and to discuss them with others, allowing them to develop their skills and knowledge. Examples of camera terminology are given below.

  Camera movements:

  o pan – horizontal movement from side to side, e.g. left to right

  o tilt – vertical movement of camera, up and down

  o zoom – can be in or out and moves the focus closer or further away from an object

  o follow – physically following the subject with the camera

  o track – follows the action but stays a constant distance from it

  o dolly – mounted camera that travels along tracks – allows for smooth movement.

  Camera angles:

  o extreme long shot (ELS)

  o very wide shot (VWS)

  o long shot (IS)

  o mid shot (MS)

  o medium close-up (MCU)

  o close-up (CU)

  o extreme close-up (ECU)

  o two-shot

  o over-the-shoulder shot (OSS)

- o point-of-view shot (POV)
- o Dutch tilts
- o bird's-eye view and worm's-eye view.

● Adding sound edits and transitions should be one of the more simplistic tasks for learners, and they should be given the opportunity to become familiar with a range of different edits and effects and their purpose within the chosen medium. The type of sound within the scene will often be indicated within the script, dependant on whether characters are speaking, and the type of environment they are in. All sound within each scene should be indicated clearly. Again, discussion of this with peers and you, their tutor, would be of benefit. Examples to be considered are provided below.

  Exploring the use of sound in storyboards:

  - o diegetic
  - o non-diegetic.

  Edits and transitions in storyboards:

  - o fade-in
  - o fade-out
  - o cut
  - o wipe
  - o dissolve.

● Production purposes should also be considered and discussed. Storyboards provide visual reference for a range of production contexts and purposes, such as:

  - o visualisation of scenes in moving image productions, such as television programmes and films
  - o theatre productions to provide a detailed production plan and visual reference of actors, scenes and sets
  - o animation and special effects (SFX) to provide mock-ups of the action and assist in working out the screenplay
  - o comic book production to show mock-up of final piece
  - o interactive media and video game production, planning moving image content of productions.

● For each draft storyboard created, the learners should be encouraged to produce a log/journal or blog that outlines what they have done and why. Learners should be able to clearly identify the production purpose for each storyboard and how it fits the codes and conventions of the chosen medium.

Learning aim C – Create and review storyboards for digital creative media production

Learners should now be utilising the skills that they have learned in learning aim B and applying them to the creation of a range of storyboards for moving image production. They should be carefully planning the content and layout of their storyboards before completing them, and they will be required to review their work and working practices.

● Now that learners have experimented with drafting and designing storyboards and content for a range of production contexts (including sketching characters and backgrounds), they should begin planning to complete storyboards for a specific

product (e.g. film production, documentary, television production, music video, drama, animation or video game). Their initial planning and ideas generation should consist of first sourcing or creating a script from which to work. They should then go through the process of working through and annotating the scenes so as to identify the visual aspects, stage directions, camera movements and angles, shot types, sound content and cues (including sourcing and deciding on sound effects) and edit and transitions. Each storyboard created should have its own planning materials attached to it, which could be kept in a portfolio or art workbook, to illustrate the planning and thought processes that informed the final piece.

● It is essential that learners create storyboards from a range of mediums. However, it is not necessary to cover all media sectors within their portfolios. It would be more beneficial for learners to be allowed to choose two or three mediums in which they are most comfortable working, in order for them to effectively use their time to produce well-thought-out planning materials and creative, workable final pieces. They should use the correct storyboard template/format/style, as is appropriate for the production type and chosen medium/media sector. Drawing and design techniques should be applied, as well as appropriate directions for sound, shot, movement, angles, frames, edits and transitions. On completion, all storyboards should either be mounted or suitably displayed, for example in work or artbooks.

● Reviewing or being critical of their own work is often very difficult for learners, and it would therefore be useful for them to gain feedback from their peers first, before completing their own reviews, as this will give them an overview and critical starting point. It would also be beneficial if you gave them some prompts from which to work and to focus their critiques, for example a range of questions that they could ask themselves about the suitability and overall fitness for purpose of their completed pieces. They should consider:

  o suitability for medium

  o appropriate use of style and format for chosen medium

  o appropriate use of design techniques in visual content

  o correct application of shot types, movements, angles and framing

  o use of edits and transitions to create meaning

  o suitability compared to original intentions

  o response to feedback from others (e.g. production team, camera operator or director).

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 10: Film Production (Fiction)*
- *Unit 13: Digital Games Production*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

All of the following textbooks will provide learners with detailed information on the nature and uses of storyboards within the creative media sector.

- Glebas F – *Directing the Story: Professional Storytelling and Storyboarding Techniques for Live Action and Animation* (Focal Press, 2008) ISBN 9780240810768.
  This is a guide to storyboarding for animators.

- Hart J – *The Art of the Storyboard: A Filmmaker's Introduction, Second Edition* (Focal Press, 2007) ISBN 9780240809601.
  This book provides guidance on storyboarding within the film industry.

- Jew A and Paez S – *Professional Storyboarding: Rules of Thumb* (Focal Press, 2012) ISBN 9780240817705.
  This is a wide-ranging resource that covers professional storyboard techniques.

- Tumminello W – *Exploring Storyboarding* (Delmar Cengage Learning, 2005) ISBN 9781401827151.
  This is an introductory guide to storyboarding with a range of illustrations and helpful hints and tips.

Websites

- www.finegamedesign.com
  This website has resources for game scripts and storyboard creation.

- www.storyboardthat.com
  This provides online resources and a storyboard creator.

- www.webhostdesignpost.com
  This website shows storyboarding and how to design your sitemap.

Unit 19: Scriptwriting

Delivery guidance

Scriptwriting is viewed as an essential part of pre-production for a range of moving image and audio productions. It is a very creative skill and often requires talented individuals to bring stories to life for the audience. As a result, not all learners will show a talent or flair for scriptwriting; however, all should be able to grasp the key concepts and conventions and be able to produce a workable end product. It is important to introduce them to scripts from a range of mediums, as they will all take different formats and require different disciplines.

When introducing learners to scriptwriting techniques, it will therefore be essential for you to provide learners with an understanding of the key elements and conventions involved in constructing scripts. Learners should be given examples of scripts to engage and familiarise themselves with while they learn about the specific skills and techniques that they will need to acquire.

It is important that learners understand the roles and responsibilities of scriptwriters in a range of media sectors, and you should help them to understand that there will be legal and ethical considerations that they will have to take into account when producing their work.

As mentioned in the specification, the unit is designed to provide learners with the skills and knowledge that they will need to gain employment in a range of writing and development roles or, for example, in creative teams focusing on games design. For the most talented learners, there is even the potential to work as an independent scriptwriter. Those learners with a keen interest in the subject area could also progress to higher education or further study in their specialist area.

Approaching the unit

It will be important for you to give learners a range of resources that will allow them to explore scripts and scriptwriting techniques. A reading list has been provided, but this is not exhaustive, and any appropriate materials that will allow learners an insight into the skills and knowledge required by a scriptwriter would be suitable. It would also be helpful for learners to have access to scripts produced within the industry from a range of sectors such as TV, film, radio and games design – these are easily accessible online. You should give learners case studies of practitioners from the industry. Investigation of some final products in which scripts have been used would also be helpful for engaging learners, as they will be able to visualise how the contents of these scripts have been interpreted and represented.

Learners must also have access to software that can be used in the production and formatting of industry-standard scripts for different sectors (e.g. FinalDraft (film), CeltX or Adobe Story (television and radio), ChatMapper or ScriptEase (for branching computer game scripting)).

Delivering the learning aims

The purpose of learning aim A is to introduce learners to the role and responsibilities of scriptwriters in the creative media sector. They should gain an insight into the various roles within a range of sectors, namely, the personnel that will work with, liaise or commission a scriptwriter and the scriptwriter's position within this structure. They should understand that they may be required

to work on a range of products for a number of different mediums and should experience examples of these during delivery of this unit.

Learners will be required to understand the commissioning process within the creative media sector and how this will impact on their creativity and working patterns. They should understand that there will be many occasions whereby they will be approached to write a script from an existing premise, and will be required to work within the parameters set for them by the commissioning body. They will also need to understand that they will be subject to budgetary and time constraints, and that their work will often be subject to change, possibly requiring revisions, even during production.

Working as a scriptwriter can take many forms. Learners should be introduced to a range of working patterns, including staff writers and freelancers. They should realise that their work will often come about as a result of their having to seek opportunities for themselves through pitching their ideas to clients and networking within the industry.

Learners will need to be helped to develop a range of essential skills that will help them to gain employment, such as:

- networking
- communicating effectively
- working collaboratively with others
- strong research skills, effective time management
- strong organisational abilities
- creative writing skills
- awareness of current affairs
- knowledge of current industry trends.

All aspects of these skills should be explored and developed during the course of their studies.

Legal and ethical considerations should also be covered within the delivery of this unit, learners should understand that they will be required to work within certain constraints and that they may not always be able to give free range to their creativity; instead having to consider the appropriateness of their work to both client and audience. Understanding and engagement with current copyright legislation will also be essential, as their work will be subject to intellectual property rights and they should understand their position under the law.

For learning aim B, learners will need to explore scriptwriting formats and conventions for media products. A scriptwriter will often have a great deal of information given to them that will dictate the content and format of their work. Learners should be provided with examples of different script formats and the range of styles, layouts and fonts used. They should understand the differences in format required for different genres. You should introduce them to examples of character, camera direction and shot descriptors using examples from a range of mediums. The types and styles of dialogue and direction will be highly dependent on the type of product or medium being worked in, so it will therefore be important for learners to be introduced to a number of different examples and be made familiar with the differences and similarities between them.

Exploration of the uses of language, tone and structure will also be important. Learners will need to understand how to stress meaning and intonation within their work through exposure to, and familiarisation with, a range of examples. There are a number of useful textbooks available that contain detailed guidance and exemplar materials, and learners should be encouraged to use these regularly in order to improve their knowledge and understanding of the many nuances of narrative creation.

In learning aim C, learners will need to produce scripts for media products. Planning of ideas and concepts is essential to this learning aim, and learners should use both primary and secondary sources of research to inform their work. They should explore and engage with existing products and gain essential feedback on their ideas and concepts from a range of primary sources. Creativity is always an essential ingredient of writing work, and learners should be using these skills to produce relevant and workable ideas that they will then move forward to completion.

The skill of producing a proposal should be one with which most learners will be familiar, having possibly created them in other units. For this learning aim, there is a minimum word count required and the learners should focus only on relevant content that will emphasise their ideas and 'bring them to life' for the reader. The purpose of the document is to persuade the reader to commission them to produce their script and, therefore, there will need to be sound use of persuasive language and adherence to the correct rules of spelling and grammar.

Final scripts should be of a good quality throughout. It is expected that they will be free from typographical and spelling errors, although rules of grammar may not always be applicable, depending on the use and purpose of the dialogue. In this instance, learners will be able to use slang and abbreviations where they are applicable to the character and/or narrative. The finished product should provide an overall narrative structure and should flow in such a way as to allow the reader to visualise the story and how it could be recreated in an audio or audio visual medium: in essence, it should be a valid and viable working document that is fit for purpose. The format of the completed piece will also be required to fit the chosen medium and should be word-processed, utilising valid conventions.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers, example clients, work experience or visits to suitable exhibitions or studios). This will also help learners to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Examine the role of a scriptwriter	**A1** The roles and responsibilities of scriptwriters in the media industry **A2** Legal and ethical considerations for scriptwriters in the media industry	A written report on the nature of the scriptwriter's role, the legal and ethical considerations they must make when working and how their role works as part of the development process.
B Explore scriptwriting formats and conventions for media products	**B1** The formats of scripts for media products **B2** The conventions of scripts for media products	A presentation exploring the format and conventions of industry-live scripts, including analysis of the use of standard writing techniques to appeal to an audience.
C Produce scripts for media products	**C1** Researching and preparing background material for scripts **C2** Producing script proposals **C3** Producing scripts	The creation of a proposal document, background research into a topic and eventual creation of a script for a given media product.

Assessment guidance

Given the nature of the unit and the disciplines being assessed, there will be a need for learners to produce substantial amounts of written materials. It will also be important to ensure that learners are making correct use of grammar and punctuation within their work, as the work they produce will be used as working documents by the cast and crew. While a written report would be the most appropriate format for learning aim A, learners may prefer to use PowerPoint to present their findings. However, it is important to remember that distinction-level learners will be required to show a detailed and insightful knowledge and understanding of all aspects of the learning aim, and therefore an appropriate format must be used.

For learning aim B, learners will be expected to evidence their understanding of the conventions of scriptwriting. It would therefore be beneficial for them to hand in their annotated research notes along with their final presentations, as evidence of their understanding.

When producing their final scripts, learners will need to undertake planning and research, and will need to keep a log or portfolio of evidence. They should outline their proposals for their final piece and provide copies of all drafts which have been subjected to review and annotation.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 19: Scriptwriting

Introduction

The skills of a scriptwriter are wide and varied, as are their working practices and environments. Learners should be able to understand the use of scripts as working documents and the many and diverse environments and sectors within which they will be required to work. They should become skilled at planning and researching information for inclusion within their work, and should be able to take a structured approach to their work from concept to completion.

Learning aim A – Examine the role of a scriptwriter

As already stated, there are many different sectors in which scriptwriters will be required to work and many different personnel they will be required to work with. In the first instance, learners should be introduced to the different crew and cast members they may be required to work with (e.g. producers, directors, script editors, agents and writers (including commissioning editors)). You could give them a flow chart or diagram of the personnel, along with an outline of their responsibilities and their working relationship with the scriptwriter. You should also indicate these by sector, as different sectors will employ different personnel in the production phases.

- It will be essential to introduce learners to the different means by which they will come by work – they should understand that unless they gain a permanent position within a company, they will often be required to put themselves 'out there' in order to gain work. You should therefore go through what it is like to seek work as a scriptwriter, including submitting solicited and unsolicited material, and entering competition briefs. You should also cover what it is like to work as a freelancer – working with agents, networking, pitching to commissioners, optioning of scripts and back-end bonuses.

- You could give learners examples of commissions and work through them, indicating what is required of the scriptwriter and identifying the possible timescales and budgetary requirements. This should include various aspects of the commissioning process (such as pitching, budget allocation, greenlighting and optioning), as well as working with various types of commissioning bodies (such as corporations, independent production companies, independent directors, organisations, competitions and charities).

- Learners could be taught a range of essential skills, by giving them tasks to be completed by specific deadlines. They will need to show their planning and time management skills in order to meet these deadlines. They should also be made aware of any potential consequences should they fail to do so.

- It is important to cover the different aspects of the scriptwriting process, including planning, script editing, involvement in production, shooting script production, page lockdown and adjustment during shooting.

- You should explain the skills that learners will need to develop for working effectively as a writer (i.e. networking, communicating effectively, working collaboratively with others, strong research skills, effective time management, strong organisational abilities, creative writing skills, awareness of current affairs and knowledge of current industry trends).

- Being able to pitch their ideas for a script may also be a skill required of them in

the future; therefore, learners could be given a proposal around which to construct an idea for a script which they will then need to pitch to the class. They can then gain feedback on their ideas as well as their ability to realise their ideas to the audience.

- Make learners aware of the varying demands and requirements of scriptwriters in different industries: i.e. the requirement for factual television scriptwriters to conduct careful research and fact-checking, the need for scriptwriters in gaming to include branching narratives in their products and the requirement for radio scriptwriters to consider sound effects and the use of music beds.

- Legal considerations (copyright, blasphemy, watershed issues, obscenity law, libel, defamation and plagiarism) and ethical considerations (taste, decency, offensive content, censorship and representation of events of individuals) should also be introduced and discussed with the class. They should be given examples of scripts or storylines that have caused controversy in the past, and learners should be encouraged to identify and discuss the reasons for this.

- It is essential to introduction the learners to copyright law. It is an extensive piece of legislation and should therefore be condensed and presented to learners. They should be encouraged to investigate pertinent aspects of the legislation and identify the potential impact that intellectual copyright may have on themselves and their work.

- In particular, learners should consider the ways in which their research will inform their own scriptwriting in the next learning aim.

Learning aim B – Explore scriptwriting formats and conventions for media products

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of scripts that they carried out in the first learning aim in order to inform their scriptwriting. As such, you should take a holistic approach to the delivery of these learning aims. For this learning aim, learners should be given a range of resources and exemplar materials to work through and engage with. At this stage, they will be learning about and beginning to gain the skills required to write a script and they should therefore be provided with every opportunity to experience these in a wide range of formats such as TV, film and radio.

- You should, where possible, give learners scripts from different media sectors (e.g. radio, television, computer games and film). It would be best to find ones that have different formats, style, fonts, abbreviations, terminology, colour coding and page layouts, so that learners are clearly able to see the differences and similarities between them. Learners should annotate these scripts and differentiate certain aspects such as dialogue and direction. They should be able to indicate why each part of the script, such as the house style, signposting, in and out cues etc., is relevant to the genre (e.g. entertainment or factual programming) and how it relates to the overall flow of the story or production.

- Ensure that learners undertake further work on reviewing and annotating existing scripts. However, learners should now be encouraged to focus on the language, tone and structure of the work and how these provide clarity and direction. They should be able to identify the audience for which the product is intended, and how the piece has been constructed to appeal to the audience and evoke emotion in them, through the language, tone, rhythm, mode of address and the use of direction. Learners should again be encouraged to discuss their findings both with their tutor and their peers, and they should also keep a record of all of their findings in order to produce a presentation that they will deliver to the group.

- Using the scripts they are working with, learners should also identify and consider:
  - compliance with guidelines distributed by broadcasting corporations or organisations
  - information required in a script, depending on media product type
  - character direction, camera direction and shot descriptors
  - production team information – set, costume and direction suggestions for a television drama
  - (for gaming scripts only) branching dialogue, where there are several responses provided in conversations to allow for the interaction of a player
  - (for media products like soaps) structure, developing narrative, story arcs and construction of wider, long-running narratives
  - The use of persuasive language, terminology, tone and syntax to promote and convince listeners or viewers of a message or meaning
  - how scripts are produced to appeal to, or directly relate to, different audiences differentiated by age, gender, ethnicity, socio-economic background and geographic location
  - the use of language in speech – dialect, slang, regional accents, colloquial terms, jargon, politically sensitive language, verbal shorthand and buzzwords
  - clarity and intended meaning of language – use of ambiguity, innuendo, hidden meanings, allusion, suggestion, implication and inference and identification of how intended meanings have been communicated
  - the need for support copy – continuity links for live broadcast, trivia points for sports broadcasters, background summaries for significant event or live news broadcast, sight-readable script and phonetic spelling of difficult words or explanatory content regarding the use of acronyms or jargon.

Learning aim C – Produce scripts for media products

Learning aim C requires that learners put the skills that they have learnt into practice, in order to plan and a produce script. As scriptwriting is a creative and time consuming process, they need only plan and produce one script – however, the final product must be in line with the conventions of the medium within which they have chosen to work.

- In order to begin planning, learners could either be given an idea or concept from which to work, or they may be allowed to choose their own ideas, allowing them full creative input. Learners should be able to prove that they are working within the conventions of their chosen medium; therefore a planning portfolio should be constructed that allows them to bring together all of their evidence. This could include examples of annotated existing scripts from their chosen medium, research into existing products that have similar audience appeal, and some drafting of storylines and concepts. Learners should make use of primary sources (original interviews, focus groups, surveys, questionnaires, observations and visits) and secondary sources (e.g. news stories, comment pieces, previously produced content on similar subjects, online forum/discussions and opinion pieces) which they have read and analysed in order to investigate their ideas and gain an understanding of their possible audience appeal and fitness for purpose. They should prepare their source material by analysing qualitative and quantitative data for relevance and validity, identifying facts and quotes for use in the script or as inspiration for content. They could also convert or adapt content from other forms of existing products, taking care not to breach copyright laws.

- Learners should work individually to produce their proposals and should be able to identify all of the key aspects required (e.g. title, overview, reference to genre, scenario, suggested target audience, unique selling point, intention, character briefs for fictional products/messages for factual products, talent requirements and proposed delivery formats). It may be possible for you to give them a minimal template or some prompts from which to work. However, the overall concept and written content must be their own. Learners may also wish to undertake a peer review of their work. This may be beneficial, especially if they constitute the learner's target audience. Learners must keep in mind the purpose of the proposal throughout: i.e. its use as an industry-standard document to outline content and detail intentions to a client, or to meet a client's needs and expectations. They should, therefore, be aware that drafting and editing of their scripts will likely be necessary, in response to client feedback or changes to the brief or client expectations. The presentation of the final proposal must take a written format, in line with industry standards and expectations, and must be at least 800 words in length.

- Templates or online resources may again be provided for use with the production of the script. However, these should only form a framework within which to work and must not contain prompts or aspects of direction or dialogue. It is essential that learners engage with the entire process individually and are not directed or misdirected in their efforts. The final piece should take an appropriate style, including linguistic conventions of syntax, vocabulary, allusion, reference, formal and colloquial language use, WAR (warn, advise, repeat) and include definitions of terminology and jargon. The format and type and size of font should also be in line with the conventions of the chosen medium. The learners should be encouraged to pay particular attention to the overall narrative and how it will be presented in order to appeal to the target audience. Finished pieces must be word-processed, communicate effectively, be formal in tone and style, include contact details and make references to industry expectations. The finished pieces can be submitted in either a print or electronic format.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 10: Film Production (Fiction)*
- *Unit 11: Radio Production (Fiction)*
- *Unit 17: News Production*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- McGee R – *Story: Substance, Structure, Style and the Principles of Screenwriting* (Regan Books, 1999) ISBN 9780413715609.
  This is a guide to writing for screen or audio visual mediums.

- Straczynski M J – *The Complete Book of Scriptwriting, 3rd edition* (Writer's Digest Book, 1997) ISBN 9781852868826.
  This gives a complete outline of the scriptwriting process covering many conventions.

- • Truby J – The Anatomy of Story (North Point Press, 2007) ISBN 9780865479517. This book gives an in-depth look into the construction of narrative for the scriptwriter.

Websites

- www.plotbot.com – This site provides free scriptwriting software.

- www.scriptmag.com
  This site contains blogs, resources, events and links to useful information for scriptwriters.

- www.bbc.co.uk/writersroom
  This site has excellent resources available free online with material that would be applicable to each learning aim.

Unit 20: Single-camera Techniques

Delivery guidance

Approaching the unit

Film and video production has recently become increasingly accessible to amateur practitioners. In many cases, students use video recording technology as part of their studies in other areas (e.g. recording a presentation or demonstrating a technique) and can achieve this with limited knowledge of the workings of the equipment and the correct procedures for creating professional work. This unit is designed to ensure that learners know how to manually control single cameras for creating video and film production and that they are able to work in a way that is recognised and adhered to by industry professionals.

Within the unit, learners will learn how professionals produce programmes and films using a single camera, how to take full manual control of a camera and use it purposefully, work in a production crew effectively and produce a single camera production.

Delivering the learning aims

For learning aim A, learners will need to understand the uses and purposes of single-camera productions as well as the benefits and limitations of this approach over using multiple cameras within a studio. Here learners should look at a range of single-camera productions that have different audiences and uses (such as advertisement productions, feature films, TV dramas or music videos). They should show their understanding of how the single-camera technique has been used to produce the product and to convey meaning to the audience.

Learners need to be given opportunities to explore how cameras are used in these productions. They need to be conversant in accurate terminology (e.g. around shot type, shot angle, mountings and movements). They also need to understand techniques that are used to convey meaning in a scene (e.g. a wide shot at a high angle to establish the location and the positioning of the characters in the opening of a scene, or a Dutch tilt used from a low angle to disorient the viewer and add dynamism in a music video). Learners should be able to understand typical set-ups that are often used in single-camera productions (e.g. a three-angle set-up for a conversation in a TV drama, or an interviewee shot using the rule of thirds in mid-shot, later zoomed into a medium close-up and then filmed close-up as the interview progresses, with cutaways used to help the edit).

Throughout learning aim B, learners should use their understanding from learning aim A to plan a single-camera production that uses equipment and technology purposefully to engage with an audience (in the ways explored above). Learners need to consider the purpose of their production and how they will use the power of the camera to tell their story in a deliberate and purposeful way. Learners will need to develop planning paperwork around their idea, including a shooting script and storyboard that can be referred to using the same terms as in the learning aim A analyses.

Following the planning, learners will need to use the manual functions of a camera (aperture, shutter speed, gain, focus and white balance) to appropriately shoot a single-camera production. They will need to adhere to the procedures for

shooting on set (e.g. how to communicate with members of the crew, how to ensure the shoot and location are assessed for health and safety before production, how to ensure that consistency and continuity are achieved in narrative productions).

For learning aim C, learners need to produce a single-camera production and understand the processes that go on in the film industry before an expensive production is embarked on. Learners need to make sure that their rushes are logged and checked, in order to make sure that they are suitable to take into the edit stage. 'Grading' at this point is the process of an editor or producer checking and judging the footage (as opposed to colour grading a final sequence to give the production a consistent look, later on in the post-production process) to decide whether there is enough suitable footage that can be edited into a final product.

Where a lot of footage has been collected for a production, it is essential that learners use logical and ordered methods to label and store this footage so that it is easily accessible during the editing process.

Once their footage has been filmed, the learners will need to carry out post-production or editing tasks (i.e. creating an overall timeline of the components of the production, synchronising audio and video footage as well as applying effects to the video). At this point learners need to present their production for review to check whether they have fulfilled their original intentions. This could be through an internal screening of the production, or the production could be distributed to a small focus group electronically, along with a link to a survey that asks them to compare the outcome with the original intention. A proposal document (although not assessed in this unit) would give an excellent benchmark to perform this task. Viewers could firstly be asked to read the proposal, then asked to watch the production and finally asked to give feedback on whether it met, or failed to meet, their expectations.

Learning aim	Key content areas	Recommended assessment approach
A Understand single-camera productions	**A1** Purposes of single-camera production **A2** Single-camera techniques	A web log or voice-over footage used to evaluate the effectiveness of single-camera techniques in a range of productions.
B Explore single-camera techniques	**B1** Plan a single-camera production **B2** Shoot a single-camera production	Planning a single-camera shoot for a defined purpose and shooting footage for a single-camera production using manual camera settings and a range of shot types, angles and movement accompanied by a production log, or voiceover footage, to detail the technical and aesthetic decisions taken.
C Produce a single-camera production	**C1** Select appropriate footage for a single-camera production **C2** Post-production and review of single-camera production	Selection of footage from rushes annotated to justify decisions taken. Final single-camera production accompanied by log justifying decisions taken, with reference to audience reaction to screening.

Assessment guidance

For assessment of this unit, learners will need to demonstrate how their observations and investigations in learning aim A informed their work in learning aims B and C. In order for learners to provide evidence for their investigation into single-camera productions, they could use a variety of approaches. A written essay comparing the use of a single camera in a range of contrasting products (e.g. a music video, a feature horror film or a TV advertisement) might serve as a method if learners are familiar with writing large reports. Alternatively, learners may record voice-overs and edit them onto single-camera products in order to comment on the techniques used. Learners could prepare presentations or seminar groups to discuss a product that they have been analysing. In order to provide evidence for A2, it would be useful for learners to keep a record of their investigations of the use of single-camera equipment. One way this could be achieved is by having learners produce a 'field manual' that explains the process of setting up a camera (detailing the effect of changing shutter speed, iris, manual focus, etc.) as well as the sequence of events that ensures the smooth running of the film shoot.

To provide evidence for learning aim C, it is advisable that learners initially work collectively to grade rushes and then work individually to assemble their final product. They should respond to feedback from their peers when testing their production individually. This could be achieved by capturing the footage and then distributing it to several workstations (where learners have produced a film within a production group). Learners may also be able to test their products through online forums where individuals could be sent the original proposal, the link to the uploaded video and finally a survey about its effectiveness. For the best performing learners, we would expect to see that their production tested well with their audience and managed to fulfil its intentions. Higher level learners should be able to recognise to what extent their production met the original intentions and why.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 20: Single-camera Techniques

Introduction

This unit offers the opportunity for learners to gain expertise within their use of single-camera techniques to produce media products. Learners need to be able to demonstrate that they have thought about how they will use single-camera techniques in a deliberate way to produce a particular effect upon the audience and then execute this intention successfully (and test this on an audience). In order to demonstrate this purposeful application of techniques and technology, the unit needs to be centred around a proposed project. The learners need to use their investigations in learning aim A to inform a proposal that they will then execute in learning aims B and C. This product will need to be tested and refined towards the end of the unit.

Learning aim A – Understand single-camera productions

Within this learning aim, learners should acquire knowledge and understanding through investigations into a range of existing products and also demonstrate their understanding of the different aspects of filming techniques and applications.

- Learners need to investigate how the camera is used and to what effect within a wide range of contexts. Learners could provide a micro-analysis of an opening sequence of a movie and describe how the camera uses different shots, angles and movements around the set to:
  - o establish the location and relative positions of the characters
  - o reveal identities of characters or demonstrate their relative status in a scene (using high angle / low angle)
  - o make the audience feel uneasy to give a notion of threat
  - o conceal things from the audience.
- You could ask learners to provide a written micro-analysis of a scene, give a presentation to the rest of the group on the use of single-camera techniques in a TV advertisement designed to persuade the audience or provide a voice-over commentary discussing the use of camera in a music video.
- Finally, learners could be asked to provide an account of the advantages and disadvantages of single-camera as opposed to multi-camera production.
- For A2, learners could be given the task of creating a user guide that explains how to access the manual controls on a camera as well as explaining how these controls affect the shot and how cameras can be used with different mounts. Learners could record footage and upload it to a blog with commentaries that discuss:
  - o the aperture settings and the effects these have on the properties of the final shot
  - o how different movements can be achieved using a range of mounts their experiments with advanced techniques (shallow depth of field, pull focus etc.)
  - o procedure to ensure consistency and continuity when filming narrative production.
- In particular, learners should consider the ways in which their research will inform their own single-camera productions in the next learning aim.

Learning aim B – Explore single-camera techniques

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of single-camera techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims. In learning aim B, learners will need to plan and manage a production based on an agreed proposal and show how they intend to use single-camera techniques to create a product.

- The proposal and planning documentation should include:
  - storyboard
  - shooting scripts
  - shooting schedules
  - equipment booking
  - location permissions and risk assessments.
- Learners should be encouraged to produce a checklist of operations that need to be carried out when producing footage for single-camera production. This should include:
  - location recce and risk assessment
  - equipment set-up
  - framing/levels check/logging
  - pre-roll/shot identifier/clapper board
  - countdown/action
  - recording
  - checking footage/retake/logging.
- For B2, learners should play a significant role in providing single-camera footage for a proposed production. It is suggested that learners work in groups on one single-camera production that has been broken into different scenes (or locations for products such as music videos), with each component part becoming an individual learner's responsibility to plan, storyboard and film during production. With good team-working skills, it is possible to achieve this without necessarily compromising the consistent look of the product, even though it will have, in effect, been produced by different directors of photography. It is important that the team continuously refers back to the original proposal document with its intended filming style that set a specification for production.
- Learners should keep a log of their activities throughout this process to support their assessment, and tutors should provide observation records to supplement evidence for this learning aim.

Learning aim C – Produce a single-camera production

Learners need to be able to check their footage before entering into the post-production activities. As this process is linked to re-shooting, it is important that it is conducted soon after or during the filming process, and within the production group.

- Learners should log their footage and keep records on production log sheets of whether shots are good, usable or require re-shooting. Learners should be encouraged to use logical and ordered methods of naming and saving footage to ensure that the editing process can be carried out efficiently.
- Following this, the footage could be replicated on individual workstations so that each learner can manage their own edit of their group production.

- Once learners have completed their final edit, they will need to present their production to an audience to review its fitness for purpose. One way of achieving this would be for learners to provide the original proposal on an electronic PDF file, then give a link to the uploaded video, followed by a survey that questions the audience. Feedback should be sought on:

    o how the product meets original intentions

    o technical quality

    o whether it is appropriate for the intended audience.

- Following feedback, learners can refine their work and write a final evaluation on their skills development and the quality of the final piece.

- Learners should also be adding to their production diaries or web logs throughout this stage of the project. Tutor observation records of the learners' ability to engage in post-production activities would support the assessment evidence for this learning aim.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 10: Film Production (Fiction)*
- *Unit 15: Advertising Production*
- *Unit 16: Factual Production*
- *Unit 18: Storyboarding for Digital Media*
- *Unit 19: Scriptwriting*
- *Unit 21: Film Editing*
- *Unit 36: Lighting Techniques*
- *Unit 37: Visual Effects*.

An efficient way to deliver these units would be to combine delivery across Single-camera and a production unit but it is important that learners produce evidence that is distinct for each unit and that they are assessed as individual units.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Musburger R B and Kindem G – *Introduction to Media Production*, 4th edition (Focal Press, 2009) ISBN 9780240810829 – This is a textbook that covers all media sectors and the requirements of producers.

- Stradling L – *Production Management for TV and Film* (Methuen Drama, 2010) ISBN 978140812180 – This book gives a comprehensive account of the tasks associated with managing a range of TV and film projects.

Websites

- http://www.thefilmnetwork.co.uk/
  This is a BBC website that contains information about film making.

- www.bectu.co.uk
  BECTU Broadcasters Union. This site gives information about roles in media industries.

- www.celtx.com
  This site provides free pre-production software.

- www.primary-film-focus.co.uk/filmpreproduction
  This site provides information about film production techniques.

- www.theguardian.com/tv-and-radio/interactive/2013/sep/25/reader-tv-pitch/review
  The Guardian website gives some examples of film pitches and proposals.

Unit 21: Film Editing

Delivery guidance

Approaching the unit

This unit introduces learners to both continuity and non-continuity editing, and develops the learners' understanding of the purposes and functions of editing. It also introduces them to the editing techniques applied for specific purposes, using historic and contemporary examples of editing. You should develop your learners' appreciation of a wide range of both continuity and non-continuity editing by encouraging discussion of the techniques, purpose and effectiveness of well-chosen examples. These examples should allow learners to explore how the pioneers of film editing developed editing techniques, and how these are used in contemporary production. Examples need not be limited to cinema – many creative contemporary applications of editing techniques can be found in television too.

Short, practical tasks will give learners opportunities to develop skills in the use of film editing techniques, which could be linked to the professional examples discussed. Learners should be encouraged to develop an appreciation of the use of both continuity and non-continuity editing techniques, and to use different tools, techniques and conventions to develop ideas for specific continuity and non-continuity purposes.

The assignments you set should allow learners to evaluate detailed examples of the application of different techniques of editing for film and television, along with their effectiveness. It should also allow them to build on the theoretical appreciation of such techniques by developing a creative approach to experimentation with such techniques for a defined purpose. Learners will need to select appropriate techniques to develop their own ideas for a final edited sequence intended to fulfil a specific purpose. Although stock footage could be given to learners for developmental tasks, you should also encourage them to generate their own original footage for the final edited sequence, which could be developed within a different unit of the course or as part of a project set by a suitable industry client, if one is available.

During this unit, learners must have access to:

● digital video cameras

● computers and appropriate video editing software

● the internet.

Delivering the learning aims

For learning aim A, introduce learners to both continuity and non-continuity editing and develop their understanding of the purposes and functions of editing and the editing techniques applied for specific purposes, using historic and contemporary examples of editing.

You should give learners the opportunity to discuss how the pioneers of film editing developed and used techniques for both continuity and non-continuity purposes. They should also find their own examples of how these have been

applied within contemporary film and television to create meaning and to manipulate time, space and rhythm.

Lessons could be structured to cover examples of different techniques each week, and well-chosen examples will effectively demonstrate techniques used to create and maintain or to break the viewer's sense of continuity.

Learners need to research their own professional examples and to discuss these in relation to purpose, aesthetic considerations and effectiveness. You should familiarise yourself with a range of current programmes where interesting editing techniques can be found, and direct learners towards these – these can often be viewed using catch-up services on the internet.

Learning aim B could either follow on from learning aim A, or be delivered in parallel with it. If you run them in parallel, learners will have a practical opportunity to experiment with the techniques being discussed as part of learning aim A.

Learners could be given examples of professional work to use as a basis for replicating the techniques used. Initially, you may choose to supply the footage to be edited, but, where possible, learners should generate footage themselves. The generation of original footage may link with other units such as *Unit 10: Film Production (Fiction)* or *Unit 20: Single-Camera Techniques*. As learners' skills develop, they should be given more freedom to experiment in preparation for the assignment brief.

Before starting any assessed work, you should be confident that learners are fully competent at managing the stages and techniques of editing and exporting. You may wish to use workshop sessions to review these basic but essential skills.

Your delivery of learning aim C is likely to be based closely on one of the experimental test sequences generated in response to learning aim B. Formal assignments set should specify the purpose and use of the final edited sequence so that learners can determine appropriate quality and resolution. The assessment piece may be used to edit footage for an end product to be used in another unit, e.g. *Unit 10: Film Production (Fiction)* or *Unit 20: Single-Camera Techniques*.

Following on from the theme set in the assignment for learning aim B, you should prepare learners for assessment of learning aim C by encouraging them to evaluate the ideas they have generated. They should also justify their selection of the final ideas to develop, with consideration of appropriateness to brief, purpose and intended audience reaction. Learners need only select one substantial sequence to develop into a completed, polished final edit, which may use either continuity or non-continuity techniques, or both.

Learners must keep a log of creative and technical choices and, following the completion of the final edit, should be encouraged to review their log to evaluate the successfulness of these choices in ensuring the final edit is suitable for the intended purpose, with reference to intended audience response.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers or visits to suitable film screenings). This will also help learners to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Understand the techniques and applications of editing for film and television	**A1** Types and purposes of editing for film and television **A2** Applications of editing techniques	A report which examines historic and contemporary examples of the types, purposes and techniques of editing for film and television, applied to different purposes.
B Explore the use of editing tools, techniques and conventions for a specific purpose	**B1** Ideas generation for edited sequences **B2** Digital editing **B3** Using continuity and non-continuity editing techniques and conventions	A minimum of two developed ideas for edited sequences, using both continuity and non-continuity editing techniques for a specific purpose or purposes, demonstrating the use of different tools, techniques and conventions. Supported by an annotated ideas development portfolio including initial ideas and experimentation.
C Create a digitally edited sequence for a specific purpose	**C1** Producing an edited sequence	A production log including a schedule, asset management and justification of the creative and technical choices made throughout. A final edited sequence intended to fulfil a specific purpose.

Assessment guidance

This unit is assessed internally, using two or three assignments which cover all the learning aims and assessment criteria. There are three suggested assignments for this unit. Assignments covering learning aims B and C are linked and follow on from each other, so these could be delivered as a single assignment if preferred.

The purpose of the edited sequence must be clear within the assignment brief to allow learners to select and use appropriate tools and techniques. All learners must independently generate individual evidence that can be authenticated. Although there may be opportunities for groups to work together to generate footage, each learner should independently experiment with editing techniques and edit their own final sequence. If this unit is delivered in conjunction with another unit, each learner could produce an individual sequence and the work of all the learners in the group could subsequently be edited together to generate a more substantial final production. In this case, all learners within the group should provide evidence of the discussions taking place between them to ensure that each sequence is suitable for inclusion in the final production.

The assessment for learning aim A could be done via a number of different means, for example presentations to the peer group, reports or blogs. Learners should be encouraged to plan any presentations well in advance and to arrange for any special equipment or props that they will require.

Practical work could be submitted as digital files or uploaded to appropriate internet mediums as appropriate, and should be accompanied by development work, experimentation and learner development logs documenting the progress of the assignment and evaluating the creative and technical choices made throughout the process. They should also evaluate the suitability of the final sequence for its intended purpose.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 21: Film Editing

Introduction

Introduce the unit through a discussion about the main purposes of film editing. Show learners a range of clips that contain good examples of continuity and non-continuity editing that has been used to create narrative, meaning and audience reaction.

Examples at this stage should be chosen from contemporary media. Learners can be engaged by discussion of the different reasons editing has been used, for example to manipulate time (including speeding up and slowing down, compressing time and stretching time) or to create suspense, and whether it has achieved its objective.

Follow this by giving an overview of the unit, discussing the three learning aims and giving the learners a clear idea of the intended delivery methods and how these will be assessed. Learners should be encouraged to watch, as independent study, any appropriate resources that you will be referring to during delivery of the unit.

Learning aim A – Understand the techniques and applications of editing for film and television

To ensure a good balance of theoretical and practical learning, it may be desirable to cover learning aims A and B in parallel, particularly if this unit is to be delivered over two sessions a week. You could hold practical workshops and set tasks to support the techniques that relate to learning aim A.

- An introduction to learning aim A should clearly differentiate between the uses of continuity and non-continuity editing. Learners could be shown a series of clips and asked to work in small groups to assign the clips to each category. Lessons should then go on to discuss each approach in more detail and give examples of the techniques used and how they have developed.

- Lessons should be structured to consider examples of different techniques each week. Examples should be carefully chosen to demonstrate how techniques (e.g. cutaways, cut-ins, 30-degree rule, match cuts, shot/reverse shot, eyeline matching, seamless editing and cross-cutting) and conventions (e.g. the 180-degree rule) are used to create and maintain continuity, while purposeful breaking or subversion of these rules, along with techniques such as montage (e.g. Eisenstein) and jump-cuts (avoiding accidental jump-cuts and creating purposeful ones), can be used to break the viewer's sense of continuity.

- When covering the different techniques, you should also make students aware of the various purposes and functions of editing for film and television. Examples are given below.

  Purposes include:

  o manipulation of time, e.g. using flashbacks, flash forwards, slow motion, to fit a specified running time

  o controlling the perception of space to create a logical and believable space between characters or objects not sharing the same shot, e.g. editing together shots in combination, using transitions (wipes, dissolve and fades) or using split screen

  o controlling the flow of the production using rhythm and pace.

Functions include:

- o creating narrative, motivation (motivated editing), developing drama, providing and withholding information

- o creating continuity between shots (continuity editing) by following the action, changing the location, changing the timeframe, including the use of flashbacks

- o creating audience reaction and engaging the viewer by creating space and suspense

- o creating meaning by juxtaposing elements within editing, creating empathy with a character and creating bias in fiction or documentary editing.

- For continuity editing:

  - o learners might discuss how a particular sequence of D.W. Griffith's early use of cross-cutting in *Way Down East* (1920) could be compared with the later more sophisticated parallel editing used in *Silence of the Lambs* (1991), where the narrative, initially perceived by the viewer, is subverted by means of the technique (and whether this subversion means the technique is, in that instance, used as a non-continuity device).

- For non-continuity editing:

  - o learners might discuss examples of montage used in *Battleship Potemkin* (1925) and compare the purposes and application of these with more recent examples such as those used in *Rocky* (1976) and *Team America* (2004).

- Learners could then be asked to work in small groups to research their own professional examples and to discuss these in relation to purpose, aesthetic considerations and effectiveness. To facilitate this, you could initially task learners to find contemporary examples from within different genres of current TV programmes, particularly those popular with learners, e.g. *Doctor Who*. You should familiarise yourself with a range of current programmes where interesting editing techniques can be found and direct learners towards these – which can often be viewed using catch-up services on the internet.

- To prepare learners for assessment, you could ask them to present an analysis of a chosen clip, with each learner focusing on a different specific editing function, e.g. how and why the editing progresses the narrative, how it withholds information, creates pace, creates bias or juxtaposes elements to create meaning (see the Kuleshov Effect). These functions could be allocated to learners either randomly or deliberately, to give different levels of challenge to some learners, as appropriate.

- These activities should prepare learners for the assessment for learning aim A in which they will be required to produce a report, presentation or blog which evaluates the effectiveness of different editing techniques applied for different intended purposes.

- Once learners are fully prepared with the knowledge and understanding necessary to analyse how meaning is created through the application of editing techniques for different editing types, purposes and functions, and are able to evaluate their effectiveness in fulfilling their intended purposes, introduce the assignment and go through the different stages of the assignment brief with learners.

- In particular, learners should consider the ways in which their research will inform their own use of editing techniques in the next learning aim.

Learning aim B – Explore the use of editing tools, techniques and conventions for a specific purpose

Delivery of learning aim B could follow on from learning aim A, or run parallel to it, to enable learners to have a practical opportunity to generate ideas and experiment with the techniques being discussed during learning aim A. Learners will need to draw on

the analyses of editing techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Learners are likely to work independently on this learning aim, rather than in groups.

- You should deliver this learning aim using practical workshops to teach the techniques and enable learners to complete tasks linked to the examples given in learning aim A. In the early stages of delivery, tasks should be simple and prescriptive, where learners replicate a style of editing either by following the tutor's directions, or by following written instructions or video tutorials. Learners should be able to use digital editing software to create video sequences, import and edit clips, add effects and transitions, add soundtracks and titles, and export finished sequences in appropriate formats.

- As learners' skills develop, they should be given more freedom to experiment with combining techniques to create sequences using both continuity and non-continuity editing techniques and conventions (see learning aim A) in preparation for the assignment brief. You could choose themes for learners to explore experimentally prior to the formal assignment to ensure that they are demonstrating an individual, creative approach and accomplished technical skills.

- Learners should learn to generate documentation for their intended narrative (e.g. creating storyboards, marking up scripts and recording the progress of their creative direction and their influences).

- Once you are sure that learners are fully prepared with the skills necessary, they should be given the assignment brief. The assignment brief should be for a film or television product such as a drama, advertisement or documentary. It should direct learners to experiment with both continuity and non-continuity techniques, and to define which are the most appropriate for the needs of their chosen context and genre. It should also give them a clear idea of the purpose of the editing and the intended audience reaction (e.g. to make them desire a product, derive meaning from the narrative, feel suspense or paranoia, or to empathise with the subject of the film).

- Assessment tasks should require learners to generate multiple test sequences using both continuity and non-continuity techniques, which could be generated for different purposes for use within the same final filmed product. For example, the non-continuity sequence could be designed as an opening credit sequence for a pilot murder mystery drama series, while the continuity sequence could be a scene to establish the location and relationships between the key characters, and to give viewers a sense of suspense or paranoia.

Learning aim C – Create a digitally edited sequence for a specific purpose

Your delivery of learning aim C is likely to be based closely on the experimental work generated in response to learning aim B.

- In introducing the learning for learning aim C, you should use workshop sessions to review production management skills, such as setting milestones, managing resources effectively, the storage and management of original footage, importing and storing assets/clips, setting up sequences and exporting in appropriate formats.

- You should also ensure that there are dedicated sessions to provide learners with the opportunity to understand how to produce a rushes log and how to check clips for technical or continuity faults. This could be achieved by giving learners deliberately flawed clips and asking them to identify the flaws (e.g. inconsistent lighting) which may cause continuity issues. Learners should also demonstrate a practical understanding of the appropriate stages of editing, including how and why to export editing decision lists in an appropriate format, for use where a project may be moved from one software application to another.

- Learners should consider the constraints of any task (e.g. sequence length and purpose), and be encouraged to keep an ongoing log in which they should record and justify the creative and technical decisions made during the stages of editing. This should include the appropriateness of the tools, techniques and conventions used and explain how they created the intended impact on the audience. During a workshop session, learners could work in small groups to discuss and analyse the creative choices they made when producing experimental work for tasks in learning aim B. (Ultimately, they should evaluate the suitability and fulfilment of purpose, and whether they met the constraints of the brief.)

- Once you are sure that learners are fully prepared with the skills necessary to produce a technically and creatively accomplished final edited sequence for a specific media purpose, you should introduce the assignment and go through the different stages of the assignment brief with them. They will need to refine the edited sequence from rough cut to final cut, justifying their decisions and choices and evaluating how successfully they meet the brief.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 10: Film Production (Fiction)*

- *Unit 20: Single Camera Techniques*

- *Unit 35: Multi Camera Techniques*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Chandler G – *Film Editing: Great Cuts Every Filmmaker and Movie Lover Must Know* (Michael Wiese Productions, 2009) ISBN 9781932907629.
  This book reviews a wide variety of film editing techniques with examples.

- Dancyger K – *The Technique of Film and Video Editing* (Routledge, 2010) ISBN 9780240813974.
  This books gives a historical and contemporary review of the aesthetic principles of editing.

- Jago M – *Adobe Premiere Pro CC Classroom in a Book 2015 (Classroom in a Book)* (Adobe, 2015) ISBN 9780134309989.
  This is a useful technical manual for those editing in Premiere Pro.

- Riley M and Chirtou M – *The Craft of the Cut: The Final Cut Pro X Editor's Handbook* (John Wiley & Sons, 2012) ISBN 9781119951735.
  This is a useful technical manual for those editing in Final Cut. The book also provides a good overview of production workflow.

Videos

The following videos are useful to show early and more contemporary uses of editing techniques to initiate discussion.

- https://www.youtube.com/watch?v=laJ_1P-Py2k
  BATTLESHIP POTEMKIN: The complete Odessa steps sequence. It documents an early use of montage.

- https://www.youtube.com/watch?v=lI2e3pXat54
  DW Griffith WAY DOWN EAST – An early example of parallel editing.

- https://www.youtube.com/watch?v=Ts1x6uADFtM
  An example of parallel editing in *The Silence of the Lambs* (1991).

- https://www.youtube.com/watch?v=4soF2wigKSM
  Rocky III training montage.

- https://www.youtube.com/watch?v=fhWiTORp22k
  This *Team America* spoof montage explains the use of montage well,
  although the lyrics may not be appropriate for younger audiences.

The following videos are useful to explain and illustrate techniques.

- https://www.youtube.com/watch?v=HdyyuqmCW14
  Moviemaking Techniques – The 180 Degree Rule.

- https://www.youtube.com/watch?v=59PjgIjImEk
  TECH TIP – Cutting on motion/match cutting.

- https://www.youtube.com/watch?v=ONMSe_zhq70
  Video editing and shot techniques: Study of jump-cuts, match cuts and
  cutaways.

Websites

- http://www.elementsofcinema.com/editing/elements_of_editing.html
  This is a student guide to fundamentals of editing development.

- http://www.premiumbeat.com/blog/4-iconic-editing-techniques/ – This gives
  examples of the use of cutting and montage techniques.

- http://www.premiumbeat.com/blog/15-premiere-pro-tutorials-every-video-
  editor-watch/
  This site gives basic video tutorials for use with Premiere Pro.

Unit 22: Interviewing Techniques

Delivery guidance

Approaching the unit

This unit requires that learners develop the skills and understanding required to conduct interviews successfully for a range of media purposes. In order to be a successful interviewer, learners will be required to utilise a number of communication techniques to ensure that their subject understands the meaning and inference within their questions and to be able to gain their trust in order to garner the required information. In order to do this, they will need to be good verbal communicators and be able to use positive body language so that they can put their subjects at ease.

Learners will need to understand that the information they gather could be used in a variety of different media such as newsprint, online, or be featured on radio or television programmes. They will therefore need to adapt their style according to the medium they are working in and use appropriate language at all times; after all, they may be aired to the general public.

The range of skills that learners will acquire through completing this unit will allow them to conduct interviews for a range of different purposes in the digital creative media sector and can be applied, more specifically, to their chosen areas of study. The unit will be beneficial for their progression to employment or higher education by providing them with a greater understanding of the processes and procedures involved in conducting interviews with different people for different purposes.

Learners should be provided with access to the internet in order to research appropriate topics and plan their interviews in a suitable manner. They should be able to focus their research activities in such a way as to assist them in the construction of their questions. When conducting interviews, learners will need to develop the discipline of delivering questions and note taking. However, they should also be given opportunities to record their interviews on an appropriate format for the medium, for example cameras and sound equipment for audio-visual interviews and audio equipment such as digital voice recorders for audio-only interviews.

Delivering the learning aims

For learning aim A, learners will need to understand interview purposes and techniques. Learners should, initially, be introduced to a range of media in which journalists operate and are likely to conduct interviews. They should be encouraged and given the opportunity to explore work produced in these media and you should either provide them with the resources with which to do this or give links to relevant materials that they can access individually.

The range of different questioning techniques will also have to be introduced to learners and they will need to become familiar with a wide range of question types and be able to identify them easily, understanding their purpose and potential in allowing them to achieve their intended outcomes. You could give them illustrative examples of these. Often, these are best exemplified in an

audio-visual format as this will not only provide context but allow learners to assess the success of these question types at achieving the intended response.

It is important for learners to also study the different ways in which interviews are structured in order to engineer or illicit a response from the subject. Learners should study how this is achieved, again through a range of illustrative examples, and be given the opportunity to practise this themselves through undertaking mock interviews and practice questions with members of the group. They should learn how to control the questioning and maintain its structure and integrity in order to achieve a desired response. They should also practise bringing interviews to a close, leading their subject towards a conclusion and winding up.

Time should also be given over to practising communication skills, both verbal and non-verbal. Practical demonstrations would be the most beneficial way of bringing this to the learners' attention and they should be encouraged to practise these skills within their peer group, allowing them to assess and develop the necessary skills required to keep their subjects at ease.

All of the interviews that learners conduct as part of this learning aim will need to have a clear purpose, namely, a reason for which they are being conducted and a desired outcome that they are hoping to achieve. It is important for learners to be able to structure their interviews in such a way as to draw the required information out of their subjects and they should be able to control the situation at all times through careful and thoughtful placement of questions and use of communication skills. Again, it will be necessary to give learners examples of this so that they can become familiar with the means by which this can be achieved. They should also be able to practise these techniques within their peer group in order to gain their own personal experience which they can then apply to their live interviews.

For learning aim B, learners will be required to undertake appropriate planning and preparation activities that will allow them to prepare an interview for an intended purpose. They should be encouraged to explore a range of ideas and think about a relevant topic or subject that they feel they could cover successfully with the resources available to them.

Access should be provided to the internet and other sources of news and information gathering to allow learners to engage with the most up-to-date stories and topics that are relevant at the time. Invite a guest speaker from a local newspaper or online publication to talk to learners about interviews that they have conducted and the ways in which they prepared for them.

There should be opportunities for learners to interact with a range of techniques and equipment that will allow them to present their interviews to the intended audience. As this can happen in a range of media, learners should be introduced to as many as possible to allow them to experiment and decide which one will work best for their intended topic. You could give them templates and exemplars to work with, but you must always ensure that autonomy is enabled at all times as learners should be able to work independently whenever possible.

Planning and structuring interviews should be approached in the most practical way possible and learners should be able to get out and about to plan their locations, sets, crew and equipment. Some sessions in which these processes are discussed will give learners the foundations but it is essential that they experience the preparation task first-hand by visiting the location so that they can establish what light and sound equipment they might need depending on the sound and light quality available. They should also contact their interviewees to arrange interview dates and arrival times.

Prior to any interviews taking place, all learners should ensure that they have the appropriate permissions in place and that they are adhering to all relevant legislation. You should give them the background to all legislation that will affect their practice and could also provide some exemplar forms to complete or adapt for gaining permissions and releases.

For learning aim C, learners will need to carry out interviews for identified purposes. Suitable time, space, equipment and locations should be provided for learners to prepare for and conduct their interviews. They should be able to rehearse their questions with others and gain responses that will allow them to gauge the potential success of the intended outcomes. Preparation is key, and ample time must be allowed for this to take place.

Actual interviews should not be conducted with peers and should take place in a 'real life' situation which allows learners to interact with unfamiliar persons whose reactions and responses they cannot predict. Again, there should be access to suitable equipment and locations, and evidence should be recorded in an appropriate format.

Learners should be familiar with the format in which their final piece should be presented and they will have experimented with these in learning aim B. They should complete their editing independently and should gain only occasional feedback while they complete the compilation of their final piece for submission.

Learning aim	Key content areas	Recommended assessment approach
A Understand interview purposes and techniques	**A1** Interview techniques **A2** Journalistic contexts **A3** Purposes of interviews	All research notes. Presentation slides and notes. Recording of presentation.
B Prepare interviews for identified purposes	**B1** Purpose of preparatory research **B2** Placement of content **B3** Interview planning and structuring **B4** Preparation for interview	Annotated, compiled research portfolio. Research log detailing activities and references for all materials gathered. All planning documentation. Word processed preparation reports for each interview with appropriate appendices.
C Carry out interviews for identified purposes	**C1** Conducting the interview **C2** Recording interviews **C3** Edit into sector	Recorded interviews. Annotated and updated preparation reports.

Assessment guidance

Evidence for assessment can take, but are not limited to, any of the forms outlined within the assessment approach above. Written evidence should be well presented and complete and research notes should be clearly annotated so as to ascertain the focus and relevance of them to the work being undertaken. If learners choose to produce reports rather than presentations, then they should ensure that all sources are fully referenced and quoted using a suitable format.

Planning documentation should show a flow of ideas and follow a logical process that details the development of their interview subject, potential questions and overall objectives. Planning documentation may contain drafted questions that have been subjected to scrutiny and accepted or rejected depending on merit and ability to provide required outcomes.

Recorded interviews should be suitably edited and evidence could also include any rough cuts and rejected content. Learners could include a justification of the reasons for and against including and rejecting footage to help support their decisions.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 22: Interviewing Techniques

Introduction

In order to be successful in this unit, learners will first need to gain an overview of a range of interview techniques and their purposes. They will be required to engage in detailed and considered planning before undertaking any interviews and be able to justify their reasons and desired outcomes. They should be able to conduct interviews in a professional manner in order to achieve these outcomes and gain the material they require from their subjects.

Learning aim A – Understand interview purposes and techniques

Gaining an understanding of a range of interview techniques is essential and allows learners to understand the purposes of their interview and what it is they aim to achieve as a result of conducting the interview. They should gain an insight into and develop an understanding of the different techniques that they could use in order to do this.

- Learners should be introduced to a range of different journalistic contexts regardless of the programme of study. This is so that they can understand the different media in which interviews are conducted. You should give them a range of different interviews to study. These should cover the following media:

  o print

  o television

  o radio

  o online

  o news

  o sport

  o feature writers

  o editorial.

- Learners should make notes about the type of questions that have been asked by the interviewer and the responses they received.

- Interviewing techniques could be covered by extending the previous task and encouraging learners to identify different question types. This could be approached through either group or paired discussions around a range of questions from the different interviews they have researched. Learners should be encouraged to think about the way in which questions are posed as well as the desired outcome. They should identify the interviewer's style and technique and study the subject's responses to ascertain if the desired effect was achieved.

- Learners should be given some audio-visual interviews to review in order to study the communication skills used by the interviewer. They should make notes on the different styles and techniques used and identify where verbal and listening skills have been used, as well as the use of positive body language. They should also be given the opportunity to listen to audio interviews to see if they can identify what techniques have been used by the interviewer when they are not face-to-face with the subject in order to gain the information that they require.

- It is important that learners understand the purposes of interviews. They should be studying interview techniques so that they can practise 'reading between the lines' by looking for inferred and implied meaning within the questions and how aggressively the interviewer pursues their questions through repetition. They should also be able to interpret the responses given by interview subjects in order to gain an insight into the intentions of the interviewer.

- In particular, learners should consider the ways in which their research will inform their own use of interview techniques in the next learning aim.

Learning aim B – Prepare interviews for identified purposes

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of interview techniques that they carried out in the first learning aim in order to inform their own interviews. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, learners should have a clear focus for their interview in terms of intended outcomes. They should have an aim or goal in mind, maybe a premise they wish to investigate or a topic or subject they are interested in. It is important to keep in mind that interviews can be conducted for a large number of reasons but that there should always be a clear intention.

- When preparing for interviews, learners will need to conduct preparatory research that will enable them to plan their questions effectively and ensure that they obtain the required information. Learners should produce a planning portfolio to evidence their explorations and outline their ideas and planned activities. It would be useful for learners to look at a range of potential issues that may arise and make some contingency plans that will allow them to overcome them. Ensure that learners know that all of their research should be referenced appropriately and can be attributed to the relevant sources.

- Learners should experiment with the placement of articles and interviews in a range of media. They should be encouraged to experiment with content, style and layout and should draft out their ideas either by hand or in electronic format. It would be useful to share ideas with others and gain feedback on their ideas, especially from people within their target audience.

- Opportunities should be given for learners to practise liaising with interviewees and arranging suitable times, dates and locations in which to conduct their interviews. They should be encouraged to go out and investigate locations and assess their suitability and should practise their questions and interview style in a mock scenario in order for them to gain confidence in themselves, helping them to conduct themselves in a more professional manner. Mock interviews could be recorded and played back so that mistakes can be identified and rectified.

- There are a range of legal and ethical considerations that will need to covered by learners in preparation for their interviews and they should be allowed to spend time familiarising themselves with any relevant legislation that might affect their interactions with the interviewee or the outcome of their interview. You should give learners access to exemplar consent forms and agreements that they could adapt and use for their own purposes, ensuring that they have the necessary permissions in place to gather the materials they need. Learners should also be encouraged to source and work through relevant sections of copyright legislation, annotate it and making a note of sections and areas that may affect their working practices.

Learning aim C – Carry out interviews for identified purposes

When conducting interviews for this learning aim, learners will need to act in a professional manner at all times and ensure that they capture and record assessment evidence in an appropriate format.

- When conducting interviews, learners should be given appropriate equipment, space and time in which to achieve their intentions. They should have generated and will need to take with them all relevant notes and information required to conduct the interview and should ensure that their interview area is prepared beforehand. Any interview that is conducted for an audio or audio-visual medium will necessarily be recorded and therefore evidenced. However, those that are intended for a print or online medium could also be recorded to evidence the processes.

- All final interviews should be edited into a final piece that is appropriate for the chosen sector. This will require learners to use editing skills in their chosen medium in order to put the final interview into the required format.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 11: Radio Production (Fiction)*
- *Unit 16: Factual Production*
- *Unit 17: New Production*
- *Unit 26: Writing Copy*
- *Unit 39: Live Radio Broadcasting.*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Adams S – Interviewing for Journalists (Media Skills), 2nd Edition (Routledge 2009) ISBN 9780415477758 – This is a good practical guide.

- Fedler F and Bender J – *Reporting for the Media* (Oxford University Press, 2004) ISBN 9780195169997 – This provides an introduction to what reporters do and how they go about their work.

- Perlich M – *The Art of the Interview: A Guide to Insightful Interviewing* (Silman-James Press, 2008) ISBN 9781879505933 – This book looks at preparation, attitude, interaction and improvisation.

- Sedorkin G – *Interviewing: A Guide for Journalists and Writers* (Allen & Unwin, 2010) ISBN 9781742370941 – This is a step-by-step guide to managing the interview process.

Websites

- www.thenewsmanual.net
  This is a professional resource for journalists.

- www.bbc.co.uk/academy/journalism/skills/interviewing
  This provides tips for planning and writing interviews and online videos.

Other resources

You should also make a range of different media products such as television and radio recordings, magazine articles, newspaper articles, and research facilities available to learners, along with equipment to record their interviews depending on the purpose of their interview.

Unit 23: Stop Motion Animation

Delivery guidance

Approaching the unit

This unit develops learners' understanding, not only of the purposes and characteristics of different techniques of stop motion animation and the development of the techniques used to create a smooth illusion of motion, but also looks at the different processes involved in creating a completed stop motion animation. You should develop learners' appreciation of a range of different uses and types of stop motion animation used to appeal to different audiences. You should also give learners opportunities to examine how techniques have developed and been applied to professional contexts.

To prepare learners for this unit, discussions should cover topics relating to the different processes used and technical considerations of stop motion animation, such as frame rate. Learners should be encouraged to experiment with historic and contemporary stop motion techniques that can be used to create a smooth illusion of motion. Short, practical tasks involving animating using different materials, techniques and processes will give learners opportunities to develop the necessary skills.

The assignments you set should allow learners to evaluate detailed examples of stop motion animation and to discuss the characteristics and processes used when creating different types of stop motion animation to appeal to different audiences. They will build on their theoretical appreciation through the development of audio/visual materials and components to comprehensively prepare and produce a stop motion animation that targets a specific audience through sophisticated application of post-production techniques. The practical elements of assessment could be undertaken as a live project with industry (if a suitable client is available).

Delivering the learning aims

Begin learning aim A by introducing learners to a wide range of professional examples with an emphasis on the comparison of examples of different stop motion animation techniques used for different purposes and to appeal to different audiences.

A series of tutor-led sessions, supported by practical workshops could then be used to introduce learners to the characteristics of a range of historic and contemporary types of stop motion animation, and to the different creative and technical processes involved in the pre-production, production and post-production stages of a completed stop motion animation.

Learning aims B and C are likely to follow the same theme, with learning aim B focusing on the pre-production stages and development of both the visual and audio material to be used in the final product that learners will create for learning aim C. These materials will be defined, generated or sourced by learners and refined, as appropriate. For a larger production, learners may work in groups to produce a range of materials, provided each learner's individual contribution to the pre-production and generation of materials is made clear and is sufficient.

During the delivery stages, learners should be guided to consider character construction and narrative and analyse the way in which elements such as dialogue, the use of exaggeration and visual expression, narrative structure and the framing and composition of different shots can be used to appeal to different audiences, and provoke emotional responses from them. Delivery could refer to examples of professional work to support practical tasks. For example, a consideration of how Creature Comforts used different characters and facial expressions within the electricity board *Heat Electric* advertisements could be used as a basis for a claymation task in which learners are required to develop and animate expressive modelling-clay characters. Learners will need to acquire skills in developing treatments, scripts and storyboards and in constructing different elements to be used within the animation. Ideally, learners will develop their own original materials to use, but where visual or audio are sourced attention should be given to issues of copyright and permissions.

Before starting any assessed work, ensure that learners are fully competent in all elements of planning, pre-production and generation of materials.

Base your delivery of learning aim C on the work generated in the tasks for learning aim B. Practical workshops should familiarise learners with all the essential elements of production of a stop motion animation (such as appropriate use of cameras, sound equipment and lighting) and of post-production processes (such as importing and editing video and sound, adding titles, and exporting in appropriate formats).

For a larger production, learners may work in groups to produce different scenes for the overall production, each taking different roles when filming each scene (e.g. camera operator, animator, sound technician) and each editing a different scene, provided each learner's individual contribution to the production and post-production of animation is clear and sufficient. Before starting any assessed work, you should be confident that learners are fully competent at managing the production processes and prepared for the assignment. Workshops should also ensure that learners are familiar with rendering the finished animations in appropriate formats.

Good practice is to encourage learners to keep an ongoing log that justifies the development of ideas and the learner's contributions to each stage of the animation processes.

Learning aim	Key content areas	Recommended assessment approach
A Understand the characteristics and processes of stop motion animation	**A1** The processes for creating stop motion animation **A2** The characteristics of stop motion animation	Blog detailing the types, uses, purpose, history and key practitioners, of stop motion animation. Case study investigation, analysing the processes used in stop motion animations.
B Generate materials for a stop motion animation	**B1** Visual development **B2** Preparation of materials for stop motion production	Portfolio or sketchbook with images.
C Produce a stop motion animation for a digital media product	**C1** Filming stop motion animation **C2** Post-production techniques	Filmed animation and post-produced stop motion animation with sound.

Assessment guidance

This unit is internally assessed and it is suggested that there should be three assignments – each one covering one learning aim and its associated assessment criteria. However, as the assignments covering learning aims B and C are linked and follow on from each other, they could also be delivered as a single assignment if preferred.

The assessment for learning aim A could be done via a number of different means, such as presentations to the peer group, reports, blogs etc. Learners should be encouraged to plan any presentations well in advance and to ensure that they have obtained any special equipment or props that they will require.

For learning aim B, learners should show evidence by means of a portfolio of detailed planning and development work, experimentation and learner development logs.

Practical work for learning aim C should be exported in an appropriate format and could be supplied by the learner as standalone files, or uploaded to a web platform such as YouTube.

All learners must independently generate individual evidence that can be authenticated.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 23: Stop Motion Animation

Introduction

To engage learners, introduce the unit by using examples of stop motion animation techniques used for different purposes and to appeal to different audiences such as the Lego brick animation used for the White Stripes music video *Fell in Love with a Girl* (2002), Creature Comforts' *Heat Electric* advertisements (2009), children's contemporary stop motion animations such as CBBC's *Scream Street* (2015) and more adult-oriented stop motion animations such as *Robot Chicken* (2005 onwards). Stills of characters from each could be displayed, to engage learners in guessing the audience and purpose, before the clips are played. Examples should also show how stop motion animation combines with other techniques, e.g. live action in Harryhausen's *Jason and the Argonauts* (1963), time lapse stop motion in *The Boxtrolls Time Lapse End Credits*, which breaks the fourth wall to reveal the animators to the characters, and the use of post-production effects to enhance the Club Penguin Christmas special 2014 *We Wish You A Merry Walrus*.

Follow this by giving an overview of the unit, discussing the three learning aims. Give learners a clear idea of the intended delivery methods and how they will be assessed. At this stage, learners could be encouraged to attend any appropriate exhibitions (such as the permanent exhibition of animation at the National Media Museum in Bradford) and to attend screenings, or be directed to appropriate library resources for independent study.

Learning aim A – Understand the characteristics and processes of stop motion animation

Learning aim A should be delivered first so as to give learners an underpinning understanding of the topic.

- Following on from the unit introduction, learning aim A should encourage learners to source their own diverse examples of uses of stop motion animation for a range of purposes and audiences and present these to the class or discuss in smaller peer groups.

- Lessons should then introduce learners to early methods of stop frame animation such as the phenakistoscope. Giving learners the opportunity to experiment practically with such early methods will help them to understand the basics of creating a smooth illusion of motion more clearly.

- To introduce learners quickly to the practical application of different types of animation, place different types of animation on different tables and get groups of learners to spend 15 minutes at each table on a 'carousel' basis. Each group should progress each animation by 1 or 2 seconds, so that, at the end of the session, all learners have contributed to several different animation types. The animations could then be played back at the end of the lesson.

- Several sessions should be dedicated to simple practical tasks to give learners more in-depth experience of using different types of animation. These can be related to the professional examples used, e.g. reviewing the White Stripes *Fell in Love with a Girl* music video, prior to a session in which learners develop a simple brick animation task. These practical tasks could then be used to introduce technical characteristics such as frame rate, and the use of advanced model making techniques such as armatures and 3D printing. These sessions should also gradually

develop learners' skills in the other aspects of production, such as camera positioning and lighting, which will be developed further in learning aim C.

- Finally, tutor-led discussions should introduce learners to the sequence of stages involved in the pre-production, production and post-production of stop motion animation, which will be developed further in learning aims B and C.

- Once you are sure that learners are fully prepared with the knowledge necessary to complete the assignment, introduce it and go through the different stages of the assignment brief with them.

- In particular, learners should consider the ways in which their research will inform their own stop motion animations in the next learning aim.

Learning aim B – Generate materials for a stop motion animation

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of stop motion animations that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Assessments for learning aims B and C are likely to follow the same theme with learning aim B focusing on the pre-production stages and development of both the visual and audio material to be used in the final product that learners will create in learning aim C. These materials should be defined, generated or sourced by learners and refined, as appropriate. For a larger production, learners may work in groups to produce a range of materials, provided each learner's individual contribution to the pre-production and generation of the materials is clear and sufficient.

Discussions and workshops for this learning aim will focus in detail on the theory and practice of the animation development processes.

- Discussions on character development will address archetypes, stereotypes and the use of exaggeration, and these will form the basis of tasks in which learners develop sketches for visual character ideas. Consideration of character movement via experimentation will also be considered at this stage.

- Discussions based on examples of the use of the way in which stop motion animation uses facial expression or character appearance to convey meaning and emotion will form the basis of tasks in which learners develop characters (e.g. out of modelling clay) and produce short animated clips of them in an attempt to convey a particular emotion.

- Discussions on narrative will cover structure and the use of dialogue, and these will form the basis of tasks in which learners develop story structures, treatments and scripts. Following on from this, discussions of different shot types will allow learners to develop these scripts into storyboards.

- Workshops on building, painting and decorating sets could be used to develop backgrounds appropriate to a particular character or narrative.

- Exercises in recording/sourcing sound effects and soundtracks can ensure learners are aware of copyright issues. Consideration of lip-synching via experimentation could be shown at this stage but this will be developed further in learning aim C.

- Once you are sure that learners are fully prepared, introduce the assignment, which should be based on a different theme or audience from those used in the learning tasks. You should explain the different stages of the assignment brief with them.

Learning aim C – Produce a stop motion animation for a digital media product

Your assessment of learning aim C is likely to be based closely on the work generated in response to the assessment of learning aim B. For a larger production, learners may

work in groups to produce different scenes for the overall production, each taking different roles when filming each scene (e.g. camera operator, animator, sound technician) and each editing a different scene. This is fine, provided each learner's individual contribution to the production and post-production of the animation is clear and sufficient.

- During the delivery stage of learning aim C, learners should use the models and sets that were created in the delivery stage of learning aim B. Initial workshops could use these to focus on the development of the technical skills of stop motion animation production, such as lighting and camera operation, and to develop learner awareness of issues such as maintaining continuity (e.g. by showing learners clips where a light is moved half-way through an animation sequence so that the shadows are cast in different directions).

- Workshops on recording voice can develop into tasks to allow learners to develop animations of different mouth stages for lip-synching.

- Workshops should then progress to post-production elements of stop motion animation with sessions focusing on importing the different elements, editing them, creating titles, captions etc., and exporting these in appropriate formats.

- Once you are sure that learners are fully prepared, introduce the assignment, which should follow on from the assessment work in learning aim B. It is good practice to encourage learners to keep an ongoing log to justify the development of ideas and their contributions to each stage of the animation processes.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 18:   Storyboarding for Digital Media*
- *Unit 19:   Scriptwriting*
- *Unit 20:   Single-camera Techniques*
- *Unit 25:   Sound Recording*
- *Unit 33: 2D Animation*
- *Unit 36:   Lighting Techniques.*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Herman S – *Brick Flicks: A Comprehensive Guide to Making Your Own Stop-Motion LEGO* (Movies Skyhorse Publishing, 2014) ISBN 9781629146492.
  This book gives details of the process of Lego brick animation.

- Lord P and Sibley B – *Cracking Animation: The Aardman Book of 3-D Animation* (Thames and Hudson, 2010) ISBN 9780500289068.
  This is a guide to making successful animation films from the creators of *Wallace and Grommit*. It is engaging and entertaining for learners.

- Milic L and McConville Y – *The Animation Producer's Handbook* (Open University Press, 2006) ISBN 9780335220366.
  Described as a 'one-stop shop for budding animators', this book gives a useful overview of all the stages in the animation process.

- Shaw S – *Stop Motion: Craft Skills for Model Animation Paperback* (Focal Press, 2008) ISBN 9780240520551.
  This is an all-round manual of stop motion animation with particularly good focus on model making and set building.

- Spess M and Brent M – *Secrets of Clay Animation Revealed* (Createspace, 2000) ISBN 9781438200644.
  This is a comprehensive manual detailing the processes of clay animation.

- Williams Richard E – *The Animator's Survival Kit* (Faber & Faber, 2009) ISBN 9780571238347.
  This is a fully illustrated industry-standard manual of all methods of animation processes, with detailed chapters on movement, dialogue etc.

- Winder C and Dowlatabadi Z – *Producing Animation* (Focal Press, 2011) ISBN 9780240815350.

This is a useful and detailed view of animation production from storyboarding to post-production and adding audio.

- Wright J – *Animation Writing and Development: From Script Development to Pitch* (Focal Press Visual Effects and Animation, 2005) ISBN 9780240805498. This is a useful and detailed view of the development stages of animation including character development, narrative, storyboarding and dialogue.

Videos

- http://www.denofgeek.com/movies/23707/25-great-stop-motion-moments-in-live-action-films
  This is a showcase of 25 classic examples of stop motion animations integrated with live action.

- http://www.smashingmagazine.com/2008/12/50-incredible-stop-motion-videos/
  This is a showcase of 50 stop motion animations.

- http://thecreatorsproject.vice.com/en_uk/blog/the-8-most-incredible-stop-motion-animation-music-videos-from-the-past-decade
  This is a showcase of 8 classic animated music videos.

The following YouTube links also provide useful examples of stop motion animation.

- https://www.youtube.com/watch?v=pF_MTFzm27A
  Boxtrolls Time Lapse End Credits (2014) which break the fourth wall to reveal the animators to the characters.

- https://www.youtube.com/watch?v=Zv2tdCEBkKg
  Creature Comforts' *Heat Electric* advertisements (2009).

- https://www.youtube.com/watch?v=53PoJq9vTh4
  Sneak-peak trailer for CBBC's *Scream Street* (2015).

- https://www.youtube.com/watch?v=pF_Fi7x93PY
  Jason and the Argonauts Skeleton Battle (1963).

- https://www.youtube.com/watch?v=O9jY7_VfsW4 and
  https://www.youtube.com/watch?v=7cuMmb2S4Js
  Two-part behind-the-scenes making of Disney's Club Penguin Xmas Special *We Wish You A Merry Walrus* (2014).

Websites

- http://www.adultswim.com
  This is the home of the *Robot Chicken* animated videos (may contain content unsuitable for younger learners).

- http://www.animationmagazine.*net*
  The website of the US *Animation* magazine which focuses on all aspects of the animation industry.

- http://www.skwigly.co.uk/
  An online animation magazine.

- http://www.britishanimationawards.com/
  This website includes an inspirational gallery of previous winners.

- www.digitalartsonline.co.uk/
  This website contains resources, tips, tutorials and a showcase of the work of digital artists and animators.

- www.nationalmediamuseum.org.uk/
  This is the website of the National Media Museum in Bradford which hosts a permanent display of stop motion animation, including historical animation equipment.

- http://www.animation-festivals.com/animation-festivals-uk/
  A useful list of UK animation festivals.

The following sites provide instructions and templates to make a phenakistoscope:

- http://classes.design.ucla.edu/Fall06/24/projects/mcdermott/animation/Phenakistoscope.pdf

- http://www.dundalkmuseum.ie/assets/files/Phenakistoscope.pdf

- http://www.stormthecastle.com/stop-motion-animation/how-to-make-a-phenakistoscope.htm

- https://www.youtube.com/watch?v=2rzwdRqsuVM

Unit 24: Sound Editing

Delivery guidance

As the title states, this unit is all about editing pre-recorded sound. Sound content used in this unit must be sourced external to the unit. There is insufficient time allocated to the unit for learners to record material. Pre-recorded content may be:

- music CDs and music tracks downloaded from appropriate production music libraries on the internet (e.g. UPPM)
- sound effects for CDs or downloaded from sound effects libraries (e.g. Dewolfe)
- ambient atmospheres either recorded by the learner or a third party
- pre-recorded speech
- dialogue recorded as part of another unit in this qualification
- material recorded or copied from any legitimate source.

Approaching the unit

If you are going to deliver and assess this unit well, you are going to need to prepare a good deal of material to demonstrate what you want learners to do. If you make a real effort to show them what needs to be done and how, you will reap the rewards of your learners succeeding in the qualification.

The approach to sound editing is much the same as sub-editing in newspapers and is done for a range of reasons, all of which the learner must be familiar with. All radio and TV programmes, as you will be aware, are timed to fit a tightly controlled schedule and it is not an option to simply produce a media product of indeterminate length in the hope it will be broadcast. This is one prime reason for limiting the scope of the work that learners do and providing fixed and well defined parameters to direct their attention.

Audio books are also of predetermined length, governed by perceived sales appeal. Film running times tend to be less tightly controlled, but there is still a budget consideration and films are often edited for different purposes (e.g. the director's cut), which may be longer than the film company will allow. Do not allow learners to dictate their timings to you. Use this constraint as a valid control imposed on the running time of each particular media artefact. It is worth pointing out that the maximum recording time (74 minutes) that the first audio CDs were capable of was imposed by the running time of a particular orchestral piece: Symphony No. 9 in D minor, Op. 125, by Beethoven, was deemed to be the longest running piece of music that the CEO of Sony would want available on a CD.

You should list the reasons for editing as:

- to shorten a sound clip to fit a given slot in a programme
- to remove material that is:
  - repetitive
  - superfluous
  - uninteresting
  - irrelevant
  - contains 'ums', 'ers', long pauses.

A list of reasons is given in the unit specification. One of the best ways to get this idea across is to have sound clips of speech with and without edits and to play them to the class so they can see how editing can make an amateur recording into a polished piece for radio or TV. When a moving image is involved, there is, of course, the issue of lip-sync and matching the voiced pieces to the action.

Some, in fact most, of the terms used when editing content in the digital domain are throwback to the days of recording tape, razor blades, sticky tape and splicing blocks. Some terms, such as cut and paste, originated in the print industry when pasting up a page layout, long before we had computers.

Delivering the learning aims

For learning aim A, you should have some unedited and pre-edited material ready to play in class for discussion. Select the following examples:

- an interview with lots of 'ums' and 'ers' (BBC Radio 4 news interviews or BBC TV if relevant)
- a question being asked and an opinion being expressed in the response, but the edited version skewed to suggest a response contrary to the respondent's intended point of view
- a news story clipped from two minutes to one minute but retaining the integrity of the original piece
- a controversial piece with expletives that are then edited out but retain the substance of the dialogue
- a dialogue piece that has had spot sound effects added to emphasise the verbal content.

For factual content and examples of changing the meaning, you could use the following questions: 'Do you believe that capital punishment should be reintroduced' and 'Do you believe in abortion?' These two questions are dealt with on pp 138–9 in *Methods and Meaning of Radio* (Shingler M and Wieringa C, 1989). The question is asked and a long and undecided answer ensues, giving reasons for and against in each case and only coming down on one side at the end of the response. This sort of answer lends itself to being unethically edited (which is why it is selected as an example).

Other factual content includes news reporting, documentaries and other material of which there is a plethora on BBC Radio 4.

Fiction editing tends to be used to gain dramatic effect, with sound effects edited into a play or film. You can demonstrate this by recording a conversation between two people participating in a work, sporting or equivalent recreational activity. In each case, there will be dialogue with intermittent sound effects. If this were in an office, for example, there might be a telephone ringing in the background, someone answering it so that we hear one side of the conversation, and other conversations going on around this. Published scripts from stage plays are a useful source of material and easily adapted to suit the particular situation.

You can demonstrate that dialogue without sound effects can be unconvincing and therefore a prime reason different types of sound to be edited together.

For learning aim B you will start to look at the range of editing equipment available to the sound engineer. First, decide which type of editing you are going to demonstrate. Use a software app or editing tool that is sufficient just to do the job in hand. Too many bells and whistles will divert learners from their task. Attention spans for material without a visual stimulus are short. If you are demonstrating editing sound on a moving image artefact, try to keep the focus

of attention on the sound not the visual image. It is often an integrated matter, but get learners to focus on sound quality, not picture quality.

Sound editing for radio, audio book or similar artefact without the encumbrance of a visual image will also challenge a learner's attention span so a soundtrack that is impressive will need to be devised.

Demonstrate the editing of fiction sound before you move on to non-fiction. Fiction sound opens up the opportunity to edit poorly delivered dialogue and to add spot sound effects, particularly if there is background ambience to consider. As part of another unit, or as a specific resource for this learning aim, prepare two recordings of the same conversation around a fictional topic (use a play script, if desired), making sure that the one take is recorded against an appropriate background ambience soundtrack (e.g. in a street with background traffic) and then again in as quiet an ambient background as possible. In the first recording, you not only have to contend with the manner in which words run together during an exchange, but also the background, which will not be easy to seamlessly edit, if you remove outtakes and errors in delivery. Demonstrate editing in both pieces of recorded dialogue. Emphasise, in the demonstration, the way in which dialogue is delivered with one word crossing over into the next without a seeming hesitation. Use the 'SCRUB' control to find the exact place of edit and to show what a spoken word sounds like when slowed down. It soon becomes clear to the learner that editing is not as simple as first thought.

Editing factual material presents its own difficulties. Probably the most difficult task to perform is the isolation of a single word, phrase or slip-up in a sentence. 'Ums' and 'ers' are usually not too difficult to remove as they are accompanied by a pause, but the trick is to leave a sufficient pause in the dialogue, if that is what the delivered speed requires. Hanging two words together following an edit of a mistake can make the words sound as though they have been spoken in a too rapid succession. This is where the choice of background ambience is crucial. Some background ambiences are easier to 'butt' edit (end to end), than others. If you are 'mixing' two sounds together, you can adjust the relative volume or 'gain' of one in favour of the other to make the transition, but not so with butt editing. You go from one background to the next in a split second and this can sound like a glitch on the soundtrack. Some sound editors have a facility to allow a mix edit, whereby the two butt ends are overlapped (automatically according to the pre-set), which will be in milliseconds. The greater the overlap the closer together will be the two words being joined. Where there is insufficient space to effect an essential edit, a section of 'wild track' or 'buzz track' (pre-recorded background from the location, recorded before or after the dialogue exchange) can be inserted between the two words in order to make the dialogue sound more natural.

However, this procedure, as indeed any editing task, is time consuming and not much heed is paid to good quality sound/vision editing in news and current affairs programmes that go out daily and are dumped as soon as they are broadcast. It is worth pointing out to learners that, when they commence production, their time is better spent planning than filming, recording or editing. First, effective planning time will be less than the doing time for the practical tasks and, second, cost effectiveness is what drives all companies, not creativity. Point out that, if they want to work in the industries, they will need to do what their employer tells them, not to indulge their fantasies.

Learning aim C requires learners to edit pre-recorded sound. This means that the sound will need to have been either recorded as part of the fulfilment of a learning aim in a different unit, or have been sourced from a library or CD (or other appropriate place). For fiction sound, start learners off by giving them pre-recorded material, for example music, to log and edit into a series of musical stings to accompany a radio or TV commercial. Learners should be given the

task of reviewing sound clips and logging their content appropriately on a log sheet, in an attempt to follow professional practice. Learners can then be given a range of genres for which they have to find and log specific and appropriate music. The clips thus logged, selected and gathered can then be imported, individually, onto the timeline of a chosen editing application and learners can be given the task of fine editing them to either a pre-timed video clip or a pre-timed sound clip, say, of dialogue. Learners can also be asked to edit sound that they have previously recorded, as part of a bigger fictional media artefact.

For factual editing, learners should be provided with either pre-recorded news stories or documentary dialogue and be asked to edit the material to predefined parameters. Preparations should be put in place in terms of pre-stating the required running time.

From the stage of listening to pre-recorded clips, all material should be logged on standard logging sheets. It would be appropriate to provide a standard logging sheet for learners to use as this would equate to industry practice and ensure that learners are able to log their work adequately. The whole idea of this is to give learners an industry-standard experience that leaves them free to concentrate on selecting clips and editing, rather than producing blank documentation that is usually provided as in-house style forms. Each clip should be edited according to the specification produced by the assessor. When edited, clips should be exported to an appropriate format to allow them to be stored. It is important to note that this process must be completed, using sound files which are of equivalent professional format, for example WAV files and AIFF files, but not MP3 files. It should be remembered that MP3 files are a compressed file format, used solely for domestic purposes. MP3 files, unlike WAV and AIFF files, cannot be edited. They must be converted into an equivalent uncompressed format to enable editing.

Learning aim	Key content areas	Recommended assessment approach
A Understand the reasons for editing factual and fictional recorded digital sound	**A1** Reasons for the need to edit sound recordings **A2** Editing factual content **A3** Editing fictional content	A presentation, either written or verbal, about the reasons why it is necessary to edit digital sound recordings.
B Investigate the equipment, techniques and procedures for editing recorded digital sound	**B1** Sound-editing equipment **B2** Sound-editing techniques **B3** Sound-editing procedures	A presentation written, verbal or practical demonstration, of how to prepare appropriate equipment for editing digital sound recordings.
C Edit recorded digital sound for media artefacts	**C1** Prepare and import sound recordings before editing **C2** Complete the editing of digital sound material **C3** Review edited material, normalise and export for consumption	A completed series of edited recorded sound clips for inclusion in a digital media artefact or artefacts.

Assessment guidance

Learning aims A and B are easily assessed using the report format; either a written report or a presentation to a group or an individual assessor. Some learners may feel more relaxed producing a pre-recorded audio-visual presentation. This can be done using any presentation software, e.g. PowerPoint, Keynote or Prezi. If a learner wishes to present verbally they should be adequately briefed about the order of delivery and the need to be comprehensive in coverage. The quality of language register must also be high, especially to achieve higher grades.

Learning aim C requires the submission of **individually** edited sound recordings. Group work should be very carefully monitored for this learning aim.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 25: Sound Editing

Introduction

Sound edited for film, television, websites, audio books and radio programmes that has been produced for other units can be used to achieve this unit. The unit can form part of an integrated project brief in connection with other appropriate units. This unit requires pre-recorded sound clips. These can be produced by the learner in part or complete fulfilment of other unit(s) or provided by the tutor for the express purpose of allowing learners to complete this unit.

Learning aim A – Understand the reasons for editing factual and fictional recorded digital sound

Start by playing unedited recordings of interviews, news stories and scenes from dramatic and fictional material. This will require some pre-class preparation, involving sourcing unedited content. You could have an exercise in learning to use recorders if, for example, you are also delivering the sound recording unit. This would generate unedited material for the editing unit.

- Lead a Q&A session on why we need to edit content for media artefacts. Build on this by playing to the class a clip and challenging anyone to fit it into a given space or running time. Take, for example, an extended interview and get learners to analyse the sorts of cut that would need to be included in order to retain the fundamental meaning of the piece.

- Expand this by getting learners to listen to pieces of pre-recorded factual and fictional material. They would do this exercise best if they are provided with typed scripts on which to add mark-ups.

- You need to get learners to do this exercise for each type of edit they will encounter – to remove surplus material, to edit to a time gap, to remove 'ums' and 'ers', to change meaning (unethical editing), to rearrange the running order of a piece and so on.

- In particular, learners should consider the ways in which their research will inform their own sound editing in the next learning aim.

Learning aim B – Investigate the equipment, techniques and procedures for editing recorded digital sound

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of sound editing techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, it is necessary to provide as wide a range of sound-editing equipment as you can.

- Computers are the easiest kind of device on which to edit and you should provide a choice of PC and MAC platforms. One of the most common PC editing software applications is Adobe Audition. Audacity is a freeware option that is cross-platform compatible and effective as a single stereo track speech editor. All software functions for both a mono and a stereo soundtrack. Another dedicated editing machines is Sadie (used mainly for radio work) which is available as a software only package.

- Start by giving learners a demonstration of how to edit a piece of music, by finding suitable 'in' and 'out' points (at breaks in the piece or the end of a bar or phrase).

Perform the edit and play the edited clip in a loop. If you do this properly you can get a completely seamless join. This demonstrates the equipment and the technique simultaneously.

- Produce a checklist of actions and get learners to copy it. Give learners different pre-recorded clips of music that they will then edit following your procedure. By using different clips, each learner has to perform the task individually and there can be no copying. Ask learners to move between different editing software and platforms, encouraging them to understand the concepts rather than a specific procedure on a specific piece of kit. Use only music clips NOT music with vocals.

- When learners are happy with their endeavours, you can move over to dialogue editing. This employs a different technique and procedure to music editing. Speech is by nature connected in a different way to music. The best way to demonstrate this is by importing a dialogue clip of, for example, news. News is delivered, or read, far slower (around 180 words per minute) than many young people speak (fast speakers, for example auctioneers, speak at 300 to 400 words per minute). To edit speech at this speed is virtually impossible. To explain this takes a demonstration. Record a sentence or two from a news bulletin. Replay these to the class. Then, replay them at slow speed, using the 'SCRUB' control on the editor. To illustrate the matter further you could use the speed reduction control to slow down the dialogue. Either way, what you will hear is that the words merge into each other and that there is no clear defined point at which one word ends and the next word begins. Dialogue edited so that there is no pause between the words sounds obviously edited. Learners should be reminded that, when interviewing people when the recording has to be edited, there needs to be a clean break in the dialogue. Try a couple of edits to demonstrate your point and finish with an edit at the end of a sentence.

- When editing dialogue, it is also crucial to ensure that sufficient pause time is left in the edited piece. This can occur when editing out 'ums' and 'ers'. Usually a recordist will have recorded some ambience background or buzz track with no dialogue to provide bits of 'atmosphere' to cover the removal of 'ers' etc.

- Give learners suitable clips of pre-recorded dialogue to edit in the same way as you have demonstrated and get them to play their edits back to the class.

- Make sure that you summarise all equipment, techniques and procedures prior to starting assessment activities related to this learning aim.

Learning aim C – Edit recorded digital sound for media artefacts

This learning aim is very much the culmination of the teaching and learning that you have delivered and assessed in learning aims A and B and, as such, the extent of delivery will be to issue the assignment brief. Go through the brief with all learners, reminding them of all the areas of work from the previous learning aims that they will be fulfilling in this brief.

- Ensure that all learners have sufficient pre-recorded material, whether speech, sound effects, ambience or music, to complete the assessment.

- Explain the conditions under which the assessment will be carried out.

- Act as facilitator, particularly with technical issues, throughout the assignment, but it is important that you do not assist learners to complete the assessment.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 4: Pre-production Portfolio*
- *Unit 11: Radio Production (Fiction)*
- *Unit 15: Advertising Production*
- *Unit 16: Factual Production*
- *Unit 19: Scriptwriting*
- *Unit 22: Interviewing Techniques*
- *Unit 25: Sound Recording*
- *Unit 39: Sound Mixing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Edit workstations are necessary for this unit, either computers PC or MAC or both with appropriate stereo editing software installed, and/or dedicated sound-editing workstations.

Textbooks

All the following titles are specialist books on sound recording and editing. Each on its own would provide an appropriate work text to support this unit.

- Borwick J (editor) – *Sound Recording Practice, Fourth Edition* (Oxford University Press, 1996) ISBN 0198166087
- Huber DM and Runstein RE – *Modern Recording Techniques* (Focal Press, 2005) ISBN 9780240806259
- Duncan B – *The Live Sound Manual* (Backbeat Books, 2002) ISBN 9780879306991
- Moulton D – *Total Recording* (KIQ Productions, 2002) ISBN 9780967430409
- Nisbett A – *Sound Studio* (Focal Press, 1995) ISBN 9780240513959
- Rumsey F and McCormick T – *Sound and Recording, Fifth Edition* (Focal Press, 2006) ISBN 9780240513133
- Toole F – *Sound Reproduction* (Focal Press, 2008) ISBN 9780240520094

Websites

These sites have great examples that you might want to use in your teaching.

- www.unippm.co.uk/
- www.bbc.co.uk/iplayer

Unit 25: Sound Recording

Delivery guidance

This unit is solely about recording sound, *not* about processing it in any way. The finished products of this unit will very likely need editing and even mixing with other sounds to produce composite audio or sound collages that include speech/dialogue, sound effects, ambient background noise and music. These other processes are covered in the units referred to at the end of this guidance. An understanding of sound or audio technology is essential to the role of a recording engineer. The use and understanding of the terminology, including the units of measurement of audio signals (in terms of size, volume and purpose) is essential.

Once the theory has been understood, the practice is easy to apply. However, it is not always necessary to deliver the theory before allowing learners to handle sound-recording equipment. Indeed, many learners will have recorded sound of one type or another before joining the course. The job of this unit is to bring together such disparate strands of knowledge and practice into a cohesive whole that will make sense to the learner. This means that you must also understand the theory of sound recording and be able to prepare and record exactly what you are asking your learners to do.

Approaching the unit

Overall, this unit introduces the learner to sound-recording equipment, techniques for using that equipment and the terminology employed by sound engineers. Simply conducting one recording will not fulfil the demands of the unit. In order to acquire any skill, there has to be the opportunity for practice, and that means, in this case, practice with unfamiliar equipment, terminology and techniques. The focus therefore is on repetitive practice, so that learners develop their skills sufficiently to be able to fulfil the practical component.

Therefore, once you have demonstrated the necessary skills to learners, you will need to provide them with plenty of opportunities to practise these skills. That is the reason why learning aim B is structured the way it is. Learners will inevitably want to get involved with equipment, so you do not necessarily have to begin with the dry 'theory' of learning aim A. Instead, to motivate learners, you could straight away let them get 'stuck into' doing some initial recording. Set them a practical task, working in pairs, of recording some scripted dialogue in different acoustic locations. Then get them to replay their efforts in class on a system so that the whole class can hear. Let learners explain their efforts and give constructive feedback with meaningful comments about the particular quality (or not) of the recordings. To do this effectively, you will need sufficient recorders to go round and suitable listening facilities. In addition, you will need to ensure that learners know how to use the equipment correctly. When you have learners' attention and they are motivated, the theoretical aspects of learning aim A can then be added. That way, learners will develop recording skills and be able to underpin this practical knowledge with the necessary theory.

This unit requires each learner to have access to:

- portable and fixed sound recorders capable of recording to industry-standard file formats WAV/AIFF (not MP3 format)

- a range of microphones – omnidirectional (for sound effects), unidirectional (for speech), lavalier and hand-held construction

- recording media – SD cards or flash drives

- a computer and the internet (computers should be loaded with appropriate digital recording software)

- a facility to download radio programmes in MP3 or WAV AIFF format.

All learners will need to record a range of sound material.

Delivering the learning aims

Having suggested that you allow learners to freefall a little at first, you do still need a plan. The text below provides examples of teaching and learning experiences in a chronological order (although you may not necessarily wish to deliver them in this order).

For learning aim A, students will need to develop an understanding of sound-recording equipment, techniques and technology. They will need to understand signal paths, levels and file formats in order to ensure that equipment is connected up correctly for carrying out a recording exercise. You may choose not to give learners this information immediately, but to let them take the kit and play with it first. You could possibly introduce an occasional fault in the cable, or let someone record on their own MP3 recorder (which of course will not produce a file of the correct format). Always emphasise the need to use AIFF or WAV files, as both are uncompressed professional formats. The MP3 format used in radio and professional recording is a domestic listening format, and should not be used in this unit. When learners use recorders, insist that they use the MANUAL record level settings. Automatic record level (or automatic gain control (AGC)) controls are useless, so tell them so. As the sound source moves away from the microphone, the AGC increases and, along with it, the background noise in the ambient surrounding atmosphere increases. When this is normalised later in the sound production process, the background noise will become very noticeable, and the final recording will not be fit for purpose and therefore not be awarded a high grade in the assessment. Let learners try recording with both AGC on and AGC off, then play back the two sample recordings and hear the difference. Sound levels in recording need to be around -6dB, so learners need to understand what a decibel is and that 0dB is known as full coding level. Go past 0dB and the recording will clip (or distort). Some recorders have a safety margin built in that will allow the recording to go over 0dB (by as much as 6dB), but it is always wise to get learners to set levels at -6dB, or thereabouts, and to monitor this level during the recording. Some recorders do not allow levels to be adjusted after the record button has been pressed, so the practice recording must find the loudest part of the recorded passage and set it at -6dB, and let the rest of the recording work in reference to this setting.

Learners could be introduced to different types of microphone by simply letting them select their own microphone from a range that you provide, prior to a recording session. They can then find out for themselves the properties of each type. If inappropriate microphones are used for a particular recording exercise, the results will be noticeable and a Q&A session will illicit the error. This is the point at which to introduce the notion of the directionality of microphone types and their different manners of construction. Leaving a battery out of a condenser microphone and letting the learner find out why it does not work will help learners to remember that it is essential to check the equipment. Polar diagrams of response patterns of microphones could be introduced, and you could demonstrate the proximity effect (bass tip-up) by recording your voice into a microphone at a closer and closer proximity, until a clear increase in the bass response of the microphone is noticed. You should demonstrate the construction of microphones by reference to their relative apparent strength. Moving coil mics

are usually much more rugged in construction than condenser mics. You could demonstrate the figure of eight response by recording a conversation between two learners standing on either side of a ribbon mic: this will provide an equal level of response from each learner. Note: For best results, use two learners with voices of equal strength.

Sound recorders come in all types, shapes and sizes, and there are software applications on both PC and MAC computers. It is important to remember, when demonstrating the operation of each type, that technology will often let you down, so it is advisable to have a second recorder prepared as back-up. Start by demonstrating how to replay a pre-recorded sound, as in 'Here's one I recorded earlier' (good old *Blue Peter*). Show how to change replay volume and remember to demonstrate the difference in playback volume between two recordings that have been recorded at different levels. Learners must realise that a recording must be made with all voices at the same level. An interview between two people where the microphone has been badly placed nearer to one participant than the other, will require a constant adjustment of playback volume to enable each voice to be heard at a reasonable playback level. Remind learners that they do not need to do this with professionally recorded sound and they do not need to do it in this unit either. Demonstrate the record mode, speak a sample text into the microphone, and ask a learner to speak a response (pre-written, because even the most chatty of learners may dry up at the sight of a microphone) into the same microphone. Adjust either the mic distance or the record level, accordingly, and play back to demonstrate 'how to do it right'. Allow learners to try this for themselves and possibly get it wrong before coming to you to say 'please show me how to do it right'.

Learning aim B, requires each learner to produce a portfolio of sound recordings that shows the effects of location and acoustics on recorded sound. This could be demonstrated in the same way as learning aim A, by experimenting with sound. You could demonstrate the speed of sound using a starter pistol, as used for sports day. On the playing field, or a similar open space, ask the group to stand about 150 metres from your position. Grab their attention and fire the starting pistol. From their vantage point, learners will see the puff of smoke but will not hear the sound until a split second later. By utilising a stopwatch and a learner with quick reflexes, you could calculate the approximate speed of sound and compare with accepted values. In fact, this varies according to height above sea level and temperature. At sea level and at 20C (68F) the speed is 343 m/s (or 1125 feet/s) which is equivalent to 1,235 km/h (about a kilometre in three seconds) or 767 mph (about a mile in five seconds).

You could demonstrate the frequency of different sounds using a keyboard, and remind learners about the way in which sound frequency is measured: i.e. in Hz and kHz. Some useful statistics are that concert pitch A is 44Hz and the A one octave higher is 880Hz. Each octave has either double or half the frequency of the next octave (octave meaning eight, the number of notes in the tonic sol-fa or diatonic scale). Some musically minded learners may already know this and will reinforce your approach.

Next, you could consider reflection of sound. If you are able to demonstrate a microphone with a parabolic reflector attached, your learners will realise that when sound hits a solid surface it will reflect, and when it hits a soft surface it will not reflect, but be absorbed. You could demonstrate reflection in a classroom. Ask a learner to face a wall about one metre away and shout. With the class at the other end, there will be clear evidence of reflection, in the form of an echo or reverberation. Do the same, but get the learner to shout into a cushion positioned directly in front of them on the wall. The difference will be noticeable.

You could then move on to the consideration of the acoustics of different interior spaces. You could demonstrate this by making a voice recording of yourself or a willing learner in a range of spaces in the building. Select from cloakrooms, changing rooms, classrooms, the main hall, the gymnasium, corridors and so on. Take learners round the building, recording and logging in each location. Go back to the classroom and play each recording, asking learners to identify from the sound of the recording where each was recorded.

Now do the same but in exterior locations. Choose, for example, the playing fields, tennis courts or cricket field. Then go out of the centre and record on a busy roadside, in town, in an urban location on an estate or along a country lane. The idea should be to show how the location of a recording can be identified by the listener, and that this will then help the listener to contextualise the material being heard. This principle is used in radio, audio books and other sound artefacts that do not have either moving or still images to assist the decoding of the message.

Learning aim C requires learners to produce recorded unedited sound in different acoustic settings. Here, they will put into action all the knowledge and understanding that they have acquired in learning aims A and B. You should set the brief for the assignment only when you are confident that your learners have taken in the previous knowledge. You should signpost each of the topics that they have covered. You could brief learners with the content of the assignment and talk them through the processes they will need to follow in order to achieve the goals. Frame your wording for the task clearly, indicating the specific purpose. Be as focused as possible on the purpose of the recording. Remind learners of the steps they will need to take in their preparations for recording. You may have worked in class on a 'crib sheet' or 'checklist' for making a recording. Make sure they all have their checklists to hand. Remind them about the stages in preparing and carrying out a recording (i.e. the dos and don'ts). Encourage learners to do as many takes as they feel is necessary. Finally, ensure that they all log exactly what they have done and listen to their recordings repeatedly to make sure that there is enough material for them to be assessed effectively.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers or visits to recording studios). This will help to engage learners and allow them to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Understand sound-recording equipment, techniques and technology	**A1** Signal paths and levels, audio file formats **A2** Microphone types, accessories, mount, applications, placement **A3** Sound recorders, connectors and connecting procedures	A report on sound-recording equipment, techniques and technologies (either written or audio visual).
B Produce a portfolio of sound recordings that shows the effects of location and acoustics on recorded sound	**B1** Principles of sound **B2** Interior location acoustics and considerations when recording sound **B3** Exterior location acoustics and considerations when recording sound	A portfolio of recordings demonstrating specific characteristics of recording different sounds in both interior and exterior locations. To be recorded and accompanied by either a voice-recorded commentary or a written report, providing evidence of the learner's factual knowledge of what they have undertaken practically.
C Produce recorded unedited sound in different acoustic settings	**C1** Plan a sound-recording event for a specified purpose **C2** Set up sound-recording equipment **C3** Record sound for a specified purpose	Documentation showing preparation for sound recording. Observation record of learner setting up equipment. Audio files of recordings made along with written log of takes.

Assessment guidance

The assessment is both practical and theoretical and requires the submission of three distinct bodies of work. The theory part of learning aim A lends itself to presentation and/or report-style evidence. The evidence for learning aim B is the practice piece that will give the learner the experience and skill required to fulfil the specific requirements of learning aim C. As such, the evidence for learning aim B will be wide and varied, and could include 'out-takes' (i.e. recordings that did not go so well). The whole purpose is that the learner will learn from mistakes. Therefore assessing a number of recordings of the same item, which improve along the way, would be an accepted part of the learning process.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant section of the qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 25: Sound Recording

Introduction

Sound recording is primarily about recording voices and sound effects. This unit does not address the more complex needs of recording music and musical instruments. That subject is covered in another unit, as there is an insufficient number of GLH. In any case, for the sort of media artefact learners of this unit are intended to produce, the usual practice is to recourse to pre-recorded 'production music' for a variety of reasons. The radio industry and the audio book industry do this for financial reasons, since it is less expensive to license production music than to commission new works or to license existing 'popular' musical works that are still in copyright.

Another area that it is essential for learners to understand is stereo (or to give it its correct name, stereophonic) – sound which needs to be heard to be appreciated. Most will not have experienced true stereo sound, even on headphones, because the loudspeaker set-up or necessity to ensure that each ear receives the correct sound is often too much trouble.

Set up a stereo listening environment in the classroom. Left speaker, right speaker – the listening point should form an equilateral triangle with sides between two and four metres. Play a stereo recording that demonstrates the sound moving from one side of the soundstage (the space between the two speakers – an ED diagram can be provided) to the other. Ask someone to walk across the sound stage, or a conversation between two people, one to the right and one to the left (not extreme right and left, but left of centre and right of centre). Invite learners to sit in the 'hot seat' to experience the 'true' stereo effect. This can work on headphones, but the placement of the microphones used to record the stereo signal is different from the placement for listening through loudspeakers. Why? Because with headphones the listener is hearing only one signal in each ear, whereas with loudspeakers the listener is hearing a composite from both loudspeakers to each ear with the distance of each ear relative to each loudspeaker creating the illusion of a spatial stereo sound.

Learners should be striving to replicate this situation when they record sounds, so any sound intended for immediate replay will require a stereo microphone set-up and sounds intended for mixing with other material will be best recorded using a mono microphone, with stereo effects being introduced at the mixing stage.

Learning aim A – Understand sound-recording equipment, techniques and technology

- As previously stated, allow learners to experiment with the equipment first, after giving them (where appropriate) fundamental guidance on switching on and pressing the record and replay controls.

- Introduce recording techniques either after learners have tried and not been very successful, or after they have tried and succeeded in producing acceptable sound recordings of voices. Always give them material that is scripted, or encourage them to obtain and use their own scripts. The object is to get a clear recording of dialogue.

- When learners are fully aware of the practicalities of recording, introduce the idea of signal paths and signal levels to give an idea of the small voltages that they are dealing with and that these voltages and currents are not harmful. Even equipment that is connected to the mains only works from very low voltages. The electrical current is reduced using a transformer in the power supply unit (PSU).

- At this stage, introduce the notion of record level control and explain why we do not use automatic gain control (AGC) when recording professionally.

- Develop learners' knowledge of microphones in terms of response patterns, sensitivity, construction and uses, after they have used a range of microphones for a range of recording tasks. Replay learners' recordings in class (anonymously if necessary) to illustrate right and wrong applications of microphones. Use diagrams of response patterns to illustrate your point.

- Tracing signal paths in recording equipment is a dry topic at the best of times, but, nevertheless, necessary in order to gain fault-finding skills. Prepare a few pieces of equipment with faults introduced into the signal paths and get learners to navigate the signal path until they have found the fault. They do not have to fix faults, but simply check that the equipment is working correctly and that it will function for the duration of the recording process. Faults that could be introduced are flat batteries, faulty connecting leads, faulty microphones, faulty SD cards (if this is the recording medium), use of wrong plug or socket or the computer being set up incorrectly for the input lead (this must be set up on a MAC). There are countless issues that can prevent a recording taking place on a computer, so all set-up procedures should be covered, which means understanding the signal path of the audio signal and being able to trace it through the equipment.

- In particular, learners should consider the ways in which their research will inform their own sound recordings in the next learning aim.

Learning aim B – Produce a portfolio of sound recordings that shows the effects of location and acoustics on recorded sound

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of sound recording techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

While learners are conducting tests for learning aim A, they can also be making experimental recordings for learning aim B. Learners will need to conduct recordings in an environment, so what better way to show them the acoustics of different environments than to get them to conduct them in a range of locations, both interior and exterior? Make sure they appraise how their location affects the speed, reflection and refraction of the sound.

Remember that learners must learn what to do before they are assessed on their ability to do it. This means that teaching and learning come first, followed by confirmation of knowledge, followed by assessment. With this in mind, always endeavour to get learners to keep notes, in whatever form they wish. Plenty of diagrams annotated by the learner (but not submitted as evidence for assessment) will help learners to confirm their understanding.

Examples of recording locations are:

- interior classroom – some reverberation due to lack of soft furnishings and presence of hard surfaces

- school hall, church or gymnasium – provide a very live sound with a long decay

- interior furnished – absorbent soft furnishings will give a muted sound without reverberation (the staff room or head teacher's study might provide this, or a living room in a learner's home)

- exterior rural – in the country, the ambient sounds will be birdsong, water, rustling leaves and the sound of walking on grass, through leaves or on gravel. If not possible, a wide tree-lined avenue might work

- exterior urban – by the side of a busy road. Try different roadsides, at traffic lights, corners, roundabouts, filling station forecourts or supermarket car parks.

Learning aim C – Produce recorded unedited sound in different acoustic settings

- This is the assessment and demonstration of each learner's understanding of learning aims A and B. The only delivery required is that you ensure that learners understand the assignment brief (the learner will need to plan a sound recording event, record sound for a specified purpose and log the recorded sound) that you have issued and they have confirmed the knowledge learned in the two associated learning aims. You are not at liberty to assist learners, so it is imperative that you provide sufficient guidance in the brief, regularly referring learners back to their work in class and their notes in order to fulfil the tasks that you have set. Make sure that a task is a task and will result in evidence being generated in its fulfilment. Give guidance on the brief as to what degree of evidence will lead to a particular grade being awarded. Use the standard issued brief, modified to suit your particular group. Do not write a brief that is too long and wordy. Be brief but comprehensive, use bullet points to cover all items; do not use prose, except perhaps in the scenario.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 4: Pre-production Portfolio*

- *Unit 11: Radio Production (Fiction)*

- *Unit 15: Advertising Production*

- *Unit 16: Factual Production*

- *Unit 19: Scriptwriting*

- *Unit 22: Interviewing Techniques*

- *Unit 24: Sound Editing*

- *Unit 25: Sound Recording*

- *Unit 39: Sound Mixing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

All the following titles are specialist books on sound recording. Each on its own would provide an appropriate work text to support this unit.

- Borwick J (editor) – *Sound Recording Practice, Fourth Edition* (Oxford University Press, 1996) ISBN 9780198166085

- Huber DM and Runstein RE – *Modern Recording Techniques, 8th Edition* (Focal Press, 2013) ISBN 9780240821573

- Duncan B – *The Live Sound Manual: Getting Great Sound at Every Gig* (Backbeat Books, 2002) ISBN 9780879306991

- Moulton D – *Total Recording* (KIQ Productions, 2000) ISBN 9780967430409

- Nisbett A – *Sound Studio: Audio Techniques for Radio, Television, Film and Recording, 7th edition* (Routledge , 2003) ISBN 9780240519111

- Rumsey F and McCormick T – *Sound and Recording: An Introduction, Fifth Edition* (Focal Press, 2005) ISBN 9780240519968

- Toole F – *Sound Reproduction* (Focal Press, 2008) ISBN 9780240520094

Unit 26: Writing Copy

Delivery guidance

The production of copy-written materials is unlikely to be a concept with which many learners are familiar. While it is true that in the 'mediatised' society in which we live, many learners will have experienced or come into contact with written copy, most are likely to be unaware of, and unfamiliar with, the processes involved in producing it. Learners need to be introduced to copy that has been written for a number of media texts, such as newspapers, magazines, web pages and pop-up advertising. They need to analyse and familiarise themselves with different types of copywriting in order to gain insight into its many facets.

You need to make learners made aware that working within the media sector, especially in creative roles, can be demanding. Such roles require creativity and the ability to work to tight deadlines. Learners need to experience the demanding and fast-paced aspects of the copywriter's role and to understand that different texts are required for different purposes, formats and target audiences. Experience of a range of mock scenarios and short-notice deadlines will enable them to do this, as well as providing them with some focus in terms of content and audience.

Ultimately, learners should be encouraged to produce copy for different purposes and for use in a range of publications and different media. This practice and experience will be invaluable to them in helping them to make decisions regarding possible career options. Should learners choose to continue to higher education or the workplace, then the materials they produce in this unit can contribute to a writing portfolio that will showcase their work.

Approaching the unit

This unit is designed to give learners the skills and knowledge they need to work within the industry. Therefore it is important to provide them with 'live' scenarios to work from and timescales to work to so they can experience and appreciate the circumstances under which they will be required to work.

You need to give learners access to suitable software and facilities to enable them to construct their production work. An essential part of their work will be developing their writing ability, but they will also need to put their writing into context and should be given contexts that allow them to consider placement, length and impact.

Delivering the learning aims

When delivering learning aim A, focus on the broad range of roles and responsibilities that learners will need to know if they choose to work in copywriting. Make sure that learners understand that they will be required to be adaptable and flexible and they will often need to work in fast-paced environments where they may be under pressure to meet tight deadlines.

Learners need to understand that they will very often be working for a single employer but will probably come into contact with the needs and requirements from many different clients who will have very specific messages to deliver to

specific target audiences. Learners need to be able to define and understand the differing needs of different clients and write work that will appeal to them. In addition, they must ensure that their work is always appropriate, in terms of style, layout, content and suitability for a given audience. They should also understand the consequences, for themselves and for their clients, of potentially offending or alienating certain audiences. A clear understanding of cultural and societal norms and conventions will definitely be required, and learners should be able to identify a range of protected characteristics as defined by legislation.

Planning and preparation are essential skills for all media production work and, for learning aim B, learners should learn to undertake careful and methodical research that will inform their final production. To prepare learners for these activities, arrange for them to study and annotate a range of copy-written texts, in order to discern the message and meaning of each. Make sure that learners have opportunities to interact with a number of different texts from different media – print, audio, audio-visual and online.

When conducting research, learners need to use both primary and secondary sources in order to find appropriate materials. They should ensure that their sources and data can be recalled easily. This means they must be stored and collated in ways that make them accessible and easy to navigate. The focus and purpose of learners' research should be clearly defined, along with the desired outcome that they wish to achieve. This outcome should be reflected equally in their online searches and questionnaires. All collated materials should be labelled and referenced appropriately.

The production of materials for learning aim C should be the result of careful research (as undertaken in learning aim B), and detailed and thoughtful planning. Learners are required to produce a number of different pieces of copy-written content which should be developed through to completion with all associated images, formats and layouts. To that end, learners should spend time gathering sources and materials, and looking for a suitable template in which to produce their work. Written text and images should be appropriate to product, medium and intended audience, and should contain appropriate use of language and mode of address at all times.

Finished work should be submitted in the format in which it is intended to be viewed (e.g. completed print products should be printed out in a suitable format and finish), so as to effectively showcase the completed work. Similarly, online or viral products should be sent or attached in the same way as they would in the 'real world', as this is the way in which they are intended to be received and viewed by the target audience, and is the only way to assess whether or not they have been successfully achieved by the learners. There is no set number of completed pieces required to be submitted for assessment, however it is essential that learners complete more than one piece in order to meet the requirements of the learning outcome to work in different media for different purposes.

Learning aim	Key content areas	Recommended assessment approach
A Understand the role and responsibilities of copywriters	**A1** The use of copywriters in the creative media industry **A2** The role of a copywriter in a range of contexts **A3** Responsibilities of a copywriter	A report that examines the use of copywriters in the creative media industry, outlining the roles and responsibilities and including legal and ethical considerations.
B Prepare media texts for copy-write production	**B1** Explore texts from a range of media sectors **B2** Gather information from primary and secondary sources **B3** Collate information for use in copy-write production	A research portfolio, referenced and annotated, containing all sourced and fully collated information in preparation for use in production activities.
C Produce copy for different audiences, publications and formats	**C1** Identify target audience for production activity **C2** Plan content for production **C3** Produce copy for different publications and in different formats	Pre-production paperwork (identifying the appropriate target audience), planning, drafting and production of final written copy in an appropriate format.

Assessment guidance

This unit is 100% internally assessed and learners should work through a process of investigations, development and construction in order for them to produce appropriate materials as evidence for assessment. Learners should be encouraged at all times to keep a portfolio of evidence to showcase their work and this should include all planning and drafting materials as well as completed pieces of text.

Learners should be able to show a systematic and considered approach to their work at all times and evidence that they have researched and planned their production work in line with the conventions of the medium. For learning aims A and B, learners will need to show that they are able to analyse and evaluate purposes, roles, styles and formats. Their work should go beyond mere identification and show a depth of understanding and exemplification through considered and well-planned discussions and considered opinions.

Work produced for learning aim C will need to reflect near-professional standards and it should be difficult to discern the difference between the learner's own work and that produced by professionals. Work should be relevant to the medium and sector for which it has been produced and the quality of written communication should be of the highest standard.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 26: Writing Copy

Introduction

The unit is designed to have a practical focus for learners, allowing them to use their newly acquired skills to produce copy for a range of products in different media. While it will be necessary for learners to undertake some research and investigations, and write up the results of these, the majority of their written work should be focused on drafting and producing copy.

Learning aim A – Understand the role and responsibilities of copywriters

For learning aim A, you will need to give learners information about and access to suitable resources so that they can investigate and understand the role and responsibilities of copywriters. Learners are required to provide evidence of this understanding. They can present it in a number of ways but will probably choose to write a report or a presentation.

- Firstly, learners need to gain an understanding of how and when copywriters are used in the creative media sector. They need to understand and define the role of the copywriter in a range of media contexts and sectors. Give learners relevant background information relating to the development of copywriting in the media sector over time. You could give them timelines and links to websites that look at the history of and changes in the field of copywriting over time.

- Introduce learners to a range of sectors that require copywriters, for example advertising and marketing. They should gain understanding of the many different facets of the role and what it is that a copywriter is expected to do. You can do this by introducing relevant materials, such as existing written copy, book blurbs and internet adverts to stimulate discussion. Encourage learners to record the outcomes of their investigations and discussions for use in their assignment work.

- Finally, give learners a range of illustrative examples of the responsibilities of a copywriter. They should enable learners to understand issues such as equality and diversity and the different protected characteristics of individuals within society. Give learners access to relevant legislation and encourage them to work through and discuss it with both you and with each other. Learners should consider:
  - understanding and maintaining social and cultural awareness
  - fair representation of protected characteristics – race, gender, disability, religious beliefs and sexuality
  - connotations and alternative readings – by children, minorities, victims
  - legal constraints – defamation, contempt, copyright, children and young persons, confidentiality, official secrets
  - ethical constraints – codes of practice, privacy, intrusion, harassment.

- Provide scenarios that require learners to identify protected characteristics and how these could be taken into consideration when writing a certain piece of advertising or marketing materials, such as copy that contains a gender bias or racial stereotyping.

- In particular, learners should consider the ways in which their research will inform their own copy-writing in the next learning aim.

Learning aim B – Prepare media texts for copy-write production

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of copy-writing techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

This learning aim is designed to allow learners to interact with a range of different copy-written texts in order to gain a better understanding of the different ways in which they can approach their work. They need to undertake a number of planning and research activities to prepare for the task of producing final pieces of copy in learning aim C.

● Ask learners to review a range of copy-written materials. The materials should have been produced for different purposes within different sectors.

● Encourage them to annotate and discuss the pieces of copy-written work and to identify the use of language and mode of address in each. Ask them to consider what makes it relevant to the message. Learners should also consider the intended and actual audience for each piece of copywriting. Ensure that learners understand that, ultimately, audience appeal must be at the forefront of all of the work that they produce, in line with the requirements of the client and the set brief.

● Make sure that learners' research activities use primary and secondary techniques and entail qualitative and quantitative methods, such as internet research, blogs and vlogs that are similar to those listed within this guide. Learners could produce questionnaires or run focus groups around existing copy and discuss why and how it is effective. Evidence of their research trails and investigations must be stored and submitted for assessment. Give learners access to primary sources outside of their peer group and encourage them to search for information in a wider context. Learners should be able to store all their findings in a way that is appropriate for recall and use at a later time. They should be able to record their work in a number of digital and non-digital formats, such as written evidence, audio or audio-visual recordings and vlogs and blogs.

● Encourage learners to produce and submit a final planning portfolio for assessment. They should provide evidence in the portfolio that they have gathered and collated a number of relevant materials for use in their final production work. Their work should be well ordered, labelled and structured, easy to navigate and easy to recall information from.

Learning aim C – Produce copy for different audiences, publications and formats

For this final learning aim, learners will be required to show their copywriting skills and must produce work that would be suitable for a range of different audiences and publications and in different formats. This does not mean that they will have to produce one piece of work for each area. However, more than one completed piece of copy will be required for final submission and assessment.

● As already specified, identification of the target audience for their copywriting materials is essential. Learners need to be able to clearly identify and define the audience for each piece of work they produce. They should undertake a number of different audience-profiling activities, possibly matching copy to an audience that has been defined for them, or writing short pieces of copy for a specific audience.

● Again, learners should be encouraged to record their planning processes as they have done in learning aim B. They should source a range of materials from different places. These could include written content, picture, graphics and templates, all of which they can bring together to use in their final pieces. Learners should submit all of these materials for assessment so it is essential that the work is well organised and structured and is in good order throughout.

- The final pieces should be in a suitable format, as outlined in the specification. Make sure that learners can access suitable hardware and software to produce their work. They should submit and produce a number of completed pieces for final assessment as this will ensure that the range and content of the learning aim is fully covered.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

Unit 17: News Production

Unit 22: Interviewing Techniques.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Other resources include:

- the internet (essential)

- a wide range of media products

- viewing, listening and reading facilities (as appropriate).

Textbooks

- Bly RW – *The Copywriter's Handbook: A Step-By-Step Guide to Writing Copy That Sells, 3rd edition* (Holt Paperbacks, 2006) ISBN 9780805078046.
  This is a guide for all you need to know about writing copy.

- Maslen A – *Write to Sell: The Ultimate Guide to Great Copywriting* (Cyan Books and Marshall Cavendish, 2007) ISBN 9781904879992.
  This is a practical and illustrative guide to writing copy that sells.

- Sugarman J – *The Adweek Copywriting Handbook* (Wiley, 2006) ISBN 9780470051245.
  This is the ultimate guide to writing powerful advertising and marketing copy from one of America's top copywriters.

Websites

- www.copyblogger.com
  A website devoted to blogs relating to the copyright business.

- www.writersandartists.co.uk
  A website containing tips and advice on writing promotional copy.

Unit 27 Digital Photography

Delivery guidance

Approaching the unit

This unit will provide learners with the understanding, knowledge and skills in digital photography. Digital photography is used widely in the media industries to convey a message, illustrate the written word or to advertise a product. It is essential for your learners to have an understanding of how digital photography is used in the media industries. Digital photography could be used for a variety of purposes – for example, as a recording tool, or as an opportunity to integrate text and images in an e-magazine or newspaper. Your learners must understand how photographers are employed to produce digital photographs in situations such as photojournalism, advertising, fashion, paparazzi and specialist areas in industry and commerce.

Your learners will investigate photography techniques and the uses of digital photography. They will see how visual communication is important in the world of social and interactive media. They will learn how to read and understand digital images, experiment with digital photography techniques and produce digital photographs. Your learners will then produce digital photographs to a brief for use in a digital media product.

Your learners will need to understand that digital photography is a creative medium and that they will be able to demonstrate their skills through the production of creative and exciting digital photographs.

The skills developed in this unit can be applied to a range of digital photography genres across a wide range of publications. The work that your learners produce for this unit can form part of a portfolio of work for progression on to employment or higher education.

Delivering the learning aims

Learning aim A introduces your learners to the applications and uses of digital photography. There is a broad range of applications from advertising through to documentary photography. Learners must explore the range of applications in order to understand how digital photography is used in the media industries. Once they have an understanding of this, they can then look at how digital photography is used in a range of media products. Learners should be gathering examples to illustrate their investigations. Learners must understand the purpose of digital photography and how this can be used for illustration, promotion, marketing, anchorage and sales. Once again, they should gather illustrations to demonstrate their understanding.

Once learners have an understanding of the application and uses of digital photography, they will need to understand the production processes involved in producing digital photographs. It will be essential for learners to have a full understanding of the production equipment required to produce digital photographs. It is likely that they will have an understanding of basic cameras, for example point and shoot or semi-automatic cameras. They may not have encountered professional equipment that does not have automatic focus or exposure. They may not be familiar with on-camera flash, studio flash or lighting equipment. Make sure that learners understand the range of camera equipment available, from manual cameras to extreme sports cameras, and to cameras that record both still and video files.

Your learners must have an understanding of camera components so that they are able to competently produce their own digital photographs and store digital files correctly. This requires learners to have hands-on experiences with equipment and file storage. There should be an opportunity for learners to experiment with different camera formats in order to consider which format they will use for their own digital photography work. Experimentation is the key to this and the teaching and learning time should provide them with a range of experimental activities that allow them to use a whole range of equipment and techniques. You should provide opportunities for using different lighting set-ups on location and in a studio, as well as opportunities to understand and use different types of camera support, from tripods to drone-mounted cameras. Technology has developed rapidly, with digital cameras being available that are lightweight and which can be mounted in any position (for example, a GoPro). Your learners should be able to experience these techniques in order to inform their own digital photograph production.

It will be essential for learners to understand image manipulation and you should provide them with the hardware and software to manipulate their experimental photographs as part of their skills development.

Learning aim B provides your learners with an opportunity to develop skills through exploring digital photography techniques. Ensure that your learners have access to a wide range of digital photographic images from a wide range of sources. It would be good practice to develop and maintain a library of digital photographs for learners to access as and when required. This might be on your VLE or in hard copy. It is essential that your learners develop skills in 'reading' photographs in terms of their meaning, visual language, mise en scène and anchorage. Learners should be able to deconstruct digital photographs in terms of their meaning, use and the ways in which the photograph has been shot and/or manipulated. After reflecting on what they have learnt in learning aim A, learners should be able to consider digital photograph production, from exterior/interior to portraiture, and be able to comment on the techniques used. Your learners should be encouraged to develop as producers rather than consumers so that they can deconstruct the digital photographs they are viewing in a professional manner. This will inform their own digital photograph production in learning aim C.

Learners must be able to develop concepts for digital photography. They will be able to reflect on their understanding of the purposes of digital photography, techniques and technology in order to develop concepts. Give them a range of briefs from which they can choose the most appropriate for further development. Learners must consider the brief in terms of purpose, use and target audience and how the digital photograph will be used. They must be able to demonstrate the development of their ideas and then produce trial layouts of how their digital photographs will be used. This should lead them to review their ideas, and provide opportunities to make changes to their ideas, where necessary.

Learning aim C gives your learners an opportunity to develop their own concepts for a brief. It is essential that each learner has access to realistic vocational briefs. This is best met by working with outside organisations who can set a digital photography brief. This allows learners to work in a realistic manner with a client. Often a local organisation might require publicity materials or images for their website. Your learners should work through the brief to demonstrate their understanding of it, develop ideas to meet the brief and pitch their ideas to the client. They must be able to identify, clearly, the resources they will need to meet the brief in terms of locations, studio, equipment, personnel and the image resolution required. The work undertaken in learning aims A and B will have equipped them with the skills required to read and understand the brief as well as to understand the techniques and technology required to meet it.

Your learners will have to manage the production process once they have agreement to produce their digital photographs. They must ensure that they produce the planning documentation required for a successful shoot. It is good practice to give learners a full range of planning documentation with examples of how to complete them. These should be available as downloads so that each learner can complete appropriate documentation relevant to the production of the photographic products. Your learners must take account of all the elements required by the client in terms of composition, mise en scène, lighting, exterior, interior and storage of files in the correct format. They must be able to display their finished digital photographs in the most appropriate formats.

It is essential that learners are able to review their digital photography work. They must do this in terms of a technical review – camera, lighting, mise en scène, focus, framing, composition, aperture and lighting. It is good practice to provide a critique of learners' work, where they exhibit their digital photographs and their peers are invited to critically review them. Each learner is given the opportunity to discuss the work they have produced with their peers and to discuss how this might be changed in the light of the discussion. The learner must also review their work in light of the brief. They must be able to gain feedback from the client in order to confirm the fitness for purpose of the work and the fulfilment of the brief. All of this information will be used to demonstrate that their digital photographs are fit for purpose and are of an appropriate quality.

Learning aim	Key content areas	Recommended assessment approach
A Understand digital photography production	**A1** Applications and uses of digital photography **A2** Digital photography production	An illustrated report or presentation on the uses of digital photography, evaluating how it is used in the digital media industries. Examples used to provide insight into uses of digital photography in a range of digital media products. An illustrated report or presentation on the techniques and technology of digital photography with examples to support learners' understanding.
B Develop skills in digital photography techniques	**B1** Exploring digital photography **B2** Digital photography techniques **B3** Develop concepts for digital photographs	Evidence of learners' ability to read and understand visual language using a range of exercises/visual stimuli. Exercises demonstrating learners' ability to develop creative ideas and to produce a wide range of digital photographs using a range of techniques and technology. A portfolio of experimental work in an appropriate format.
C Create digital photography to produce images for a digital media product	**C1** Pre-production considerations for a brief **C2** Production of digital photographs for a brief	Evidence of the management of the pre-production process, to include reviewing and reading a brief, developing ideas for the brief and consideration of resources required to fulfil the brief. A set of digital photographs produced to meet the brief.

Assessment guidance

This unit should be delivered using a range of resources to support learners' understanding of the use of digital photography and its application in the media industries. The use of case studies is recommended, as these will provide learners with examples of how digital photography is used in a range of media products, as well as being stand-alone media products.

It is essential that your learners are able to show how digital photography is used in the media industries and how digital photographers use technology and techniques to produce their digital photographs. Learners should be given a range of stimulus materials from a wide range of digital photography applications. This will promote their understanding of the use of digital photography. Learners could keep a digital photography diary or blog that allows them to capture digital images and deconstruct them in terms of technical quality and technology used.

Your learners should be encouraged to undertake experimentation in the use of digital cameras and accessories through structured exercises. These will provide them with the understanding and skills in using a range of digital photography tools and techniques. Once they have the skills, they can begin to develop their own digital photography concepts and practise their skills through a range of set assignments or briefs that cover location and interior shoots. This will be vital in developing your learners' understanding of composition and lighting techniques.

Once learners are able to use the techniques and technology effectively, they should work on a realistic vocational brief to produce digital photographs for a client. This will give them an opportunity to put their learning to use in the production of digital photographs. It is good practice to work with local organisations to give your learners a realistic photography brief. If this is not possible, then a brief set by the centre would provide a valid and effective opportunity.

The learners must be encouraged to review their work by displaying their finished digital photographs. This will allow the client to provide feedback on their work and enable a critique session with peers to give feedback on their work and allow for any changes to be made, where necessary. It is good practice to allow learners time for changes to be made, as this may well result in improved grades. Encourage learners to produce sophisticated rather than just effective digital photographs as a result of critique or feedback from the client, and to indicate clearly how this has been achieved.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 27: Digital Photography

Introduction

Begin by introducing the key concepts of the unit in terms of the requirements for understanding the uses of digital photography and the techniques and technology involved in the production of digital photographs. You should inform learners that they will be working towards a client brief to produce their own digital photographs.

Learning aim A – Understand digital photography production

You should begin by introducing your learners to the context of this learning aim. This will include an overview of the content as well as how they will be assessed. You should provide your learners with the context and purpose of uses of digital photography in the media industries.

It is essential that your learners understand the purposes and uses of digital photography and this could be demonstrated through a presentation with examples of digital photography being used in a range of media products.

- Once your learners have a clear picture of the range of purposes and uses, give them an opportunity to work individually on an investigation into how digital photography is used in a range of media products. You could ask each learner to produce an individual presentation of their investigations using relevant examples to illustrate them. They could produce an illustrated report with relevant examples.

- Your learners must understand the technology used to produce digital photographs. Give them resources to investigate the range of equipment available to produce digital photographs. You could give your learners a range of digital images with the relevant information on the equipment used to produce the photographs. Often magazines that specialise in high quality photographs supply the technical information alongside the images. This will allow learners to experiment with cameras, lighting, tripods etc. in order to fully understand how to use them effectively.

- A simple quiz with blanked handouts might be an effective way for the learners to demonstrate their understanding of camera controls and lighting equipment.

- Your learners will need to experiment with equipment in order to demonstrate that they can use these items effectively.

- It is good practice to give each learner a skills audit that allows them to identify the skills that they are bringing to the unit and the skills they need to acquire and to identify where and when they have acquired these skills.

- It is essential that your learners understand how to manipulate their digital photographs. They must be given appropriate teaching and learning in order to develop skills in using hardware and software to manipulate their own digital photographs. You could give your learners a range of set materials that need to be manipulated and suggest that they follow your instructions to produce finished photographs. This could be different images for each learner or a class set of images. This skill development can be added to the skills audit.

- Your learners must have an understanding of the ways in which they must export and store files. They must be given the resources to export their digital files to a safe and secure environment with the facility for each learner to back up their files. Once again, all of this can be added to the skills audit.

- Your learners' skills audits will be valuable documents when demonstrating their developing skills. The audit should be a valid document that the learner and the tutor can access and add comments to and also sign off when the learner has achieved the required standards.

- In particular, learners should consider the ways in which their research will inform their own digital photography in the next learning aim.

Learning aim B – Develop skills in digital photography techniques

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of digital photography techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Your learners must be able to develop their skill in digital photography techniques. They will have an understanding of the equipment they will use to produce their digital photographs. They will now begin to develop their own techniques in producing their own digital photographs.

- Your learners must be able to deconstruct digital photographs in order to inform their own understanding of how they will produce their own work.
  - You could do this by giving an initial presentation on the reading of images. You should provide a range of images, and engage learners in discussion on mise en scène, anchorage, visual language denotation and connation of the images and universal symbols.
  - This will provide the basis for learners' own investigations into their choice of digital photographs. They should then present their own findings to their peers. In this way, each learner takes ownership of the research and is able to provide their peers with observations which may be relevant to their work. Have a bank of suitable digital photographs for the learners to download and review.
- Your learners must have an understanding of types of shot.
  - In order to do this, give learners a range of digital photographs demonstrating the range of shots specified in the unit content. These should be readily available on the internet and you could either provide links to the images, or present them as hard copy.
  - It may be appropriate to use these as part of a simple quiz activity where the learner has to place each of the images in the correct order as identified by you. For example, you could use an exterior location shot under uncontrollable conditions or an interior shot using stylised (controlled) lighting. This will confirm learners' understanding of types of shot.
- It is essential that your learners understand and can demonstrate their understanding of digital photography techniques.
  - Initial teaching will demonstrate a range of techniques and learners can show their understanding by undertaking a range of exercises.
  - It would be good practice for each learner to produce a handbook of digital photography techniques. This handbook would demonstrate their use of a range of techniques, which they could annotate to show how they achieved their results. Your learners could produce this handbook using their own digital photographs with notes on how they achieved the photographs, shutter speeds etc. along with any notes on manipulation or editing techniques used. This would apply to the production of digital images and the resulting manipulation and editing process.
- Once learners have developed their digital photography techniques, they will need to demonstrate their ability to develop concepts for digital photographs.
  - Give learners a sample brief that they can deconstruct and then develop appropriate ideas for. Each learner should have an individual brief (although the client could be the same). For example, the client might require different digital photographs for a range of products, e.g. a magazine or a poster. Each learner must be able to develop a concept and then pitch it to their tutor and peers.

o Learners must consider the requirements for their ideas in terms of resources required and timescales. They will produce trial layouts and mock ups to demonstrate their ideas as well as contingency plans. They will review their ideas with the client and the audience, where appropriate, and make changes to their ideas, where necessary.

Learning aim C – Create digital photography to produce images for a digital media product

Your learners should now have the skills required to develop a concept and skills to produce their own digital photographs.

● Learners will develop their concepts for digital photographs according to a brief.

o It is good practice for each learner to work to a client brief. This would give the learner an opportunity to develop appropriate ideas for a realistic vocational product. Local organisations could be approached to act as as clients and learners could be asked to provide promotional materials for an upcoming campaign or promotion for them. Where there is no opportunity for this, you or a member of the senior management team of the centre could take the role of the client, requiring digital photographs for the school/college prospectus or website.

● Each learner must develop their own concept and then pitch this concept to their client, teacher and peers. Learners should be encouraged to develop a range of ideas, mind map these ideas, and then choose the most appropriate. They should produce a proposal for their concept and pitch this in the form of, or example, a PowerPoint presentation with embedded ideas and potential images to meet the concept. They must consider the requirements for their ideas in terms of resources required and timescales.

● Learners must manage the production process through all stages. They should produce appropriate documentation to ensure that the planning is accurate. This documentation will be used in the production process to ensure that all resources are available and that your learners are working safely.

● Your learners must produce their digital photographs using appropriate techniques and technology. They should consider the brief in terms of the requirements of the client, the mise en scène of the shots, the technical requirements of the photographs and the storage of their raw and edited files. They must use:

o appropriate cameras and accessories

o effective composition, framing and lighting

o appropriate manipulation and editing techniques

o management techniques to store files effectively.

● Learners must be able to display their final products in order to demonstrate that they have produced appropriate digital photographs that meet the brief.

o This is an opportunity to hold a critique session where all your learners view each other's work and make positive comments to support each other. It is also an opportunity for a client to review the work and provide feedback.

● It is essential that your learners are able to review their work in terms of technical achievements and the fitness for purpose of their digital photographs.

● It would be good practice to gather feedback from the client, tutor, the audience and peers in order to determine whether or not learners have fulfilled the brief and to assess the technical and aesthetic quality of their work. Your learners should interpret this data to reflect on the quality of their own digital photography work.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

● *Unit 29: 2D Digital Graphics*

● *Unit 30: Page Layout and Design for Digital Media*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

The following publications provide information on digital photography techniques with illustrations.

● Ang T – *Digital Photography Masterclass* (Dorling Kindersley, 2013) ISBN 9781409333906

● Barnbaum B – *The Art of Photography: An Approach to Personal Expression, Photographic Arts Editions* (Rocky Nook, 2010) ISBN 9781933952680

● Harman D – *The Digital Photography Handbook: An Illustrated Step-by-step Guide* (Quercus, 2014) ISBN 9781848667044

Unit 28: Image Manipulation Techniques

Delivery guidance

Approaching the unit

This unit develops learners' understanding of the different approaches to both digital and pre-digital image manipulation, and the purposes for which it is used within the creative industries. You should develop learners' appreciation of a wide range of commercial and creative uses of image manipulation by encouraging discussion of the purpose, aesthetic considerations and effectiveness of well-chosen examples. Choose examples from as wide a spectrum of professional work as possible, including both pre-digital and digital image manipulation.

Give learners the opportunity to examine how digital and pre-digital image manipulation techniques have developed and been applied to professional contexts. Discussion topics should cover ethical issues such as misrepresentation, using examples of image manipulation in sectors such as advertising and journalism.

Short, practical tasks will give learners opportunities to develop skills in the use of digital image manipulation techniques. Professional examples will encourage learners to discuss and develop their appreciation of image manipulation. They need to understand how their own ideas are influenced by, rather than plagiarised from, these examples.

The assignments you set should allow learners to evaluate detailed examples of the use and effectiveness of different image manipulation approaches and techniques. They should build on their theoretical appreciation of these by developing a creative approach to experimentation for a defined purpose. They should select appropriate techniques to develop their ideas for a final digitally manipulated image. They should justify the creative and technical choices they have made. You should strongly encourage learners to generate their own original images to be manipulated for inclusion in the final image. However, inclusion of a small amount of copyright-free imagery is permitted where there are no reasonable alternatives.

This final image could be developed for use in a media product in any media sector (e.g. a published advert, web pages, a film poster, or even a sophisticated texture set for a game environment). It could be undertaken as a live project in association with industry, if a suitable client is available.

Delivering the learning aims

Learning aim A introduces the learners to a wide range of professional examples of image manipulation techniques including both pre-digital and digital techniques. Learners should understand how modern digital techniques have developed from pre-digital techniques, such as dogding and burning, to photographic images, photographic collage and airbrushing.

Using professional examples will show the use of image manipulation for corrective or creative purposes.

Learners need to research their own professional examples and discuss them in relation to their purpose, aesthetic considerations and effectiveness.

You can either deliver learning aim B after learning aim A, or run both in parallel. If you run them in parallel, learners will have practical opportunities to experiment with the techniques they are learning about in learning aim A. Initially, learners could be given examples of professional work to use as a basis for replicating the techniques used. To start out, you may choose to supply the images that learners will be manipulating or you could use Creative Commons stock photography. However, where possible, learners should generate images themselves. The generation of original images may link with other units such as *Unit 27: Digital Photography*. Other alternatives are to create links with students studying photography, or link up with a local photography studio to source original photographs.

As learners' skills develop, give them more freedom to experiment with combining techniques to create original manipulated imagery. You could choose a theme for them to explore experimentally prior to the formal assignment. The assignment brief may be for a creative or commercial purpose. Ideas could be generated in response to a theme that has been set by, for example, a local photography club or a photography competition. It is important that learners respond to the brief as they would to a live client brief, adhering to deadlines.

For learning aim C, before starting any assessed work, you should be confident that learners are fully competent at managing the production processes and optimising images in different formats for a variety of purposes and platforms. Encourage learners to justify their creative and technical decisions in an ongoing log.

Base your delivery of this learning aim on the experimental work generated in learning aim B. Formal assignments should specify the final use of the image so that learners can determine the appropriate quality and resolution. The assessment piece may be used to originate images in conjunction with another unit, e.g. *Unit 12: Web Production* or *Unit 30: Page Layout and Design for Digital Media*. At this stage, if learners have been experimenting by using stock images or low-quality, self-generated images, they may need to shoot, or re-shoot, high-quality images to use in their finished work. An ongoing learner log should be used to evaluate the ideas generated, to justify their selection of final ideas and review whether the constraints of any set task have been met.

Learning aim	Key content areas	Recommended assessment approach
A Examine approaches to image manipulation	**A1** Approaches to image manipulation	A report that examines the development of different approaches to image manipulation, the techniques used with reference to associated legal and ethical issues, using examples of use for different purposes.
B Explore the use of digital manipulation for a specific media product	**B1** Digital image manipulation techniques	An ideas generation portfolio, including annotated initial thumbnail ideas and experimentation, with at least three image manipulation techniques to develop a variety of appropriate ideas for a specific media product; ideas for this product might be a book cover, magazine advertisement, image for a website home page, film poster, or complete suite of textures for a specific game environment.
C Create a digitally manipulated image for a specific purpose	**C1** Generating and selecting ideas **C2** Producing a digitally manipulated image **C3** Evaluating a digitally manipulated image	A planning and production log including a schedule, asset management and evaluating the creative and technical choices made throughout. A final digitally manipulated image for a specific media purpose.

Assessment guidance

This unit is assessed internally, using two or three assignments which cover all the learning aims and assessment criteria. There are three suggested assignments for this unit, but, as learning aims B and C are linked and follow on from each other, they could be assessed by a single assignment if preferred.

All learners must independently generate individual evidence that can be authenticated, although there may be opportunities for groups to work together on some pre-production/production activities. For example, a group of three learners could generate ideas for an advertising campaign using manipulated imagery and they could go together as a group on a photo shoot to generate original images. They could then independently experiment with techniques and manipulate their own individual images to contribute to the campaign.

The assessment for learning aim A could be done via a number of different means, for example presentations to the peer group, reports or blogs. Learners should be encouraged to plan any presentations well in advance and to arrange for any special equipment or props that they will require.

Practical work could be submitted as printouts or in digital format, as appropriate. This should be accompanied by development work, experimentation, and learner development logs that document the progress of the assignment and evaluate the creative and technical choices made throughout the process.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 28: Image Manipulation Techniques

Introduction

Introduce the unit by discussing the main purposes of image manipulation. Show learners inspirational examples of its uses in advertising, art, publishing, etc. Choose examples that showcase both digital and traditional manipulation techniques. Engage learners with the topic by asking groups to guess what changes they think have been made, whether digital or traditional techniques have been used, and how effective the image is.

Follow this by giving an overview of the unit, discussing the three learning aims. Give learners a clear idea of the intended delivery methods and how they will be assessed. At this stage, learners could be encouraged to attend any appropriate exhibitions or directed to appropriate library resources for independent study.

Learning aim A – Examine approaches to image manipulation

To ensure a good balance of theoretical and practical learning, it may be desirable to deliver learning aims A and B in parallel, particularly where this unit is delivered over two sessions a week, with practical workshops and tasks set to support the techniques relating to learning aim A.

- An introduction to learning aim A should clearly differentiate between the uses of image manipulation for corrective purposes and for creative purposes, and learners could be asked to work in small groups to assign different uses to each category. Lessons should then go on to discuss each approach in more detail, give examples of the techniques used, and explain how they have developed from traditional to digital.

- For corrective techniques you could do the following.

  o Present a session detailing how traditional techniques such as dodge, burn, tinting and colouring were utilised by photographers, and how these have now translated into digital tools.

  o Ask learners to work in small groups to source and compare traditional and digital examples. Discussions could develop into current uses of colour correction, such as brightening skies within tourism photographs. These techniques could be explored practically in tasks relating to learning aim B.

  o Similarly, a session might discuss traditional airbrushing to remove blemishes in fashion photography and how this has developed into digital techniques. You should encourage class discussion of the ethics of such image manipulation (e.g. to give teenagers unrealistic expectations of beauty).

- When discussing creative techniques, a similar approach could be taken. Use several sessions to introduce learners to pre-digital use of manual photomontage and photographic collage in art, advertising and publishing. Show how this has developed using digital photo-compositing (layering) and the use of digital visual effects and filters.

  o Well-chosen commercial and creative examples should provoke useful discussions and, again, these can be linked to techniques explored in learning aim B.

- o Choose examples which allow learners to discuss related legal and ethical issues. This should include the ethics of using image manipulation within advertising and journalism and copyright and intellectual property rights relating to the original and manipulated images.

- You could give learners resource handouts to support this learning aim.

- You should encourage learners to visit suitable exhibitions.

- These activities will prepare learners for the assessment of learning aim A. Here, they will be required to produce a report which evaluates in detail specific examples of the uses of different image manipulation approaches and techniques and their effectiveness in fulfilling different purposes (e.g. illustration, advertising, art and journalism). Each example needs to make reference to any associated legal and ethical issues.

- Once you are sure that learners are fully prepared with the knowledge necessary to complete the assignment, introduce it and go through the different stages of the assignment brief with them.

- In particular, learners should consider the ways in which their research will inform their own use of digital manipulation in the next learning aim.

Learning aim B – Explore the use of digital manipulation for a specific media product

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of digital manipulation techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims. Therefore you may choose to deliver learning aim B in parallel with learning aim A so that learners have practical opportunities to experiment with the techniques they will be learning about. Learners are likely to work independently on this learning aim, rather than in groups.

- Deliver this learning aim in practical workshops linked to the examples given in learning aim A. In the early stages of delivery, tasks should be simple and prescriptive. Ask learners to replicate a manipulated image by following your directions, written instructions or video tutorials.

- Once they have learnt the basic techniques you should encourage learners to experiment. They should source or generate their own copyright-free imagery. For example, you might get learners to take portrait photographs of each other, then create their own version of, or pastiche images from, iconic film posters such as *The Silence of the Lambs*.

- As learners grow in skills and confidence, make the tasks more sophisticated. Encourage learners to generate a range of ideas via thumbnail sketches, developing these into visual roughs before deciding on final images to create. Although learners will generate ideas and images individually, ask them to discuss their ideas in pairs or small groups, or present them to the class. Make sure that they are able to justify the selection of their ideas and techniques.

- Once you are sure that learners are fully prepared, introduce the assignment and go through the different stages of the assignment brief with them.

Learning aim C – Create a digitally manipulated image for a specific purpose

Your delivery of learning aim C is likely to be based closely on the experimental work generated in response to learning aim B.

- To introduce the learning for learning aim C, use a session to present and review basic but essential production skills such as setting production milestones and organising assets. These skills will be required for the assessment.

- Present a session on exporting and optimising for different purposes, providing learners with opportunities to explore practically different image settings (including size, resolution and colour mode). They also need to optimise images accurately for a variety of purposes and platforms and practise exporting images using different formats.

- Learners should be encouraged to justify the creative and technical decisions in an ongoing log, and a session could be used to work in small groups to discuss and analyse the creative choices learners make when producing experimental work for tasks in learning aim B.

- Once you are sure that learners are fully prepared with the skills necessary to produce a sophisticated final digitally manipulated image for a specific media product, demonstrating accomplished technical skills and justifying the creative choices made, you should introduce the assignment and go through the different stages of the assignment brief with learners. The formal assignments that are set should specify the final use of the image so that learners can determine and discuss final optimisation at the appropriate quality and resolution.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 6: Media Campaigns*
- *Unit 12: Website Production*
- *Unit 14: Digital Magazine Production*
- *Unit 15: Advertising Production*
- *Unit 27: Digital Photography*
- *Unit 29: 2D Digital Graphics*
- *Unit 30: Page Layout and Design for Digital Media*
- *Unit 31: Coding for Web Based Media*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

The following textbooks provide useful creative image manipulation tutorials or task ideas.

- Bailey E – *Photoshop: The Complete Beginners Guide To* Mastering *Photoshop In 24 Hours Or Less!: Secrets Of Color Grading And Photo Manipulation,* (CreateSpace Independent Publishing Platform, 2015) ISBN 9781512360134.
- Virtanen C – *17 Stunning Photoshop Tutorials: with detailed instructions, diagrams, and photos* (2015).
- Ward A – *Photoshop for Right-brainers: The Art of Photomanipulation* (Sybex, 2009) ISBN 9780470397015.

Journals

The following are useful for creative image manipulation inspiration and tutorials:

- ImagineFX
- Computer Arts Magazine
- Digital Arts Magazine
- Digital Artist

Websites

- http://www.christofferrelander.com/
  This site shows work of a contemporary photographer manipulating images by conventional methods.

- http://www.d-log.info/timeline/main.htm
  This site gives a useful timeline of historic and contemporary artists using image manipulation.

- http://designrfix.com/resources/140-fantastic-photo-manipulation-tutorials-adobe-photoshop
  This site is useful for creative image manipulation inspiration and tutorials.

- http://www.digitalartistdaily.com/
  This site is useful for creative image manipulation inspiration and tutorials.

- http://www.digitalartsonline.co.uk/
  This site is useful for creative image manipulation inspiration and tutorials.

- http://www.huffingtonpost.com/patricia-zohn/culturezohn-grete-sterns-emancipated-subversive-alluring-photographs-at-moma_b_7763870.html
  This is an article on a 2015 exhibition of the work of Greta Stern with useful images.

- http://www.imaging-resource.com/news/2012/09/28/before-photoshop-how-photographers-have-been-manipulating-images-for-years
  This gives a useful overview of historic image manipulation.

- http://www.johnheartfield.com/John-Heartfield-Exhibition/
  This contains an archive of the work of John Heartfield.

- http://lens.blogs.nytimes.com/2015/06/16/posing-questions-of-photographic-ethics/
  This site is useful for discussions of the ethics of image manipulation.

- http://www.shootingfilm.net/2013/01/joiners-polaroid-collages-by-david.html
  This gives an overview of the 'joiners' collages of David Hockney.

- http://www.smashingapps.com/2014/10/28/40-excellent-photo-manipulation-tutorials.html
  This site is useful for creative image manipulation inspiration and tutorials.

- https://www.techdirt.com/articles/20130408/08031822622/when-is-image-manipulated-enough-to-become-original-creation.shtml
  This is useful for discussions of legal and ethical issues relating to image copyright.

Unit 29: 2D Digital Graphics

Delivery guidance

The use of 2D digital graphics is widespread in a range of media products and can be introduced to learners alongside their studies in their chosen specialist area. Doing so will allow them to apply their knowledge to their ongoing production activities.

There should be a strong and ongoing emphasis on the development of a wide range of specialist practical skills within the delivery of this unit. Learners will need to be given the opportunity to produce work that is designed for use in multiple media technologies and platforms.

As stated in the specification, learners should save and store the work they produce to include in a digital portfolio of work. They can add to and enhance this portfolio throughout their course of study and use it to showcase their abilities to potential employers, or to help them gain access to higher studies in their chosen specialist area.

Approaching the unit

Not all learners will have a detailed knowledge of, or experience with, 2D digital graphics. Therefore, the starting point for study will be an introduction to and exploration of the purposes and characteristics of 2D graphics: namely, what they are used for and why and how they can be differentiated from other graphic formats. Learners will need to have access to a range of digital design tools, by means of appropriate design software, and should be allowed to interact and practise with this software at every opportunity in order to gain experience and develop their skills.

Delivering the learning aims

You should begin learning aim A by introducing learners to a range of 2D digital graphics from different media. Provide a range of illustrative examples for them to discuss with their tutor and with their peer group. Learners should be able to analyse the use of 2D graphics within specific products, assess how they have enhanced the product and assess whether they are fit for purpose. They should be able to identify the target audience for the product by breaking down the use of colour, fonts and stylistic codes and how they have been used to appeal to them. The ability to identify which graphics have been used, and to justify why, is an essential skill for learners, so that they can understand their own future production works and provide them with context.

In addition to understanding the use and purposes of 2D graphics, learners should be able to identify the different characteristics in terms of types of graphics (such as bitmap and vector) and the different software that can be used for different applications. Learners should be encouraged to investigate independently the different software that is available to them within their chosen sector. They also need to investigate its fitness for purpose. They should be encouraged to interact and experiment with the software to gain some familiarity with it.

Learners will need to evidence their understanding of 2D graphics within their assessment evidence and will therefore need to show both a depth and breadth of understanding of the technical characteristics required for different applications.

For learning aim B, learners will need to undertake a range of explorations of different digital graphics tools. They should be given access to appropriate software on which to do this, and should record the outcomes of their practical activities wherever possible.

Learners could be assisted in this by being given a range of tasks to complete while they practise their skills and gain experience of using the software provided. This will also give them a focus for their work. They should also engage with a number of tutor-led tutorials that will allow them to gain some familiarity with the graphic tools and equipment that they will be using. These could take the form of online, tutor-generated tutorials that allow them to alter or enhance existing graphics using a range of tools. Again, learners should ensure that they keep detailed records of their activities as evidence for assessment. Given the nature of the tasks, it would not be reasonable or practical for learners to produce long tracts of written evidence and therefore more visual and relevant forms of generating the evidence will be required.

For learning aim C, learners will be required to produce a blog or sketchbook that includes documenting the planning and production process of a set of 2D digital graphics in response to a brief. This brief should contain a vocational scenario and provide them with a context within which to work. They should be introduced to the different forms that their planning materials could take and be provided with any exemplar documentation that may prove useful to them when doing their planning. It is important, however, that exemplar documentation takes the form of a minimal template and does not offer too much guidance on how to complete certain tasks.

By the time they begin production work, learners should be familiar with the different formats and software that they will be using. They should also have undertaken some practical production activities for learning aim B. You should offer learners support and guidance where necessary, but should ensure that you encourage independence wherever possible. When working on assessment materials, learners will be required to work independently and therefore you should be confident that they are able to apply their new skills and knowledge competently to their production work before they begin the assignments.

Learning aim	Key content areas	Recommended assessment approach
A Investigate the purposes and characteristics of 2D digital graphics	**A1** Purposes of 2D digital graphics **A2** Characteristics of 2D digital graphics	A blog or report explaining the purposes and characteristics of 2D digital graphics, evaluating detailed examples of the professional use of different types of 2D digital graphics for different platforms in fulfilling different purposes.
B Explore the use of digital graphics tools and techniques for specific media purposes	**B1** Visual communication **B2** 2D digital vector graphic tools and techniques **B3** 2D digital bitmap graphic tools and techniques	A blog or sketchbook that logs learners' experiments using both vector and bitmap 2D digital graphics tools and techniques to visually communicate different ideas in response to a specified brief.
C Create digital graphics for media products	**C1** Planning 2D digital graphics **C2** Producing 2D digital graphics	A blog or sketchbook that includes documenting the planning and production process of a set of 2D digital graphics in response to a brief. Final graphics exported and integrated into a finished or dummy media product.

Assessment guidance

Learners should be encouraged to used digital formats on which to generate evidence such as blogs or vlogs. They will need to keep these regularly updated and include within them copies of screenshots showing their working practices and processes. The blogs or vlogs could also contain links to learners' completed products. The written content should be well developed and in line with the expectations of LV3 learners, with appropriate explanation and elucidated examples. Learners do not necessarily need to produce physical sketchbooks as artistic talent should not restrict their ability to access the content of the unit. They can use online design tools as part of their planning, if required. Photographs of sketchbooks could be uploaded to the blogs to help learners keep all of their information in one place. Learners will also need to ensure that blogs are remotely accessible and easy to navigate with any links and embedded content clearly labelled.

Merit level learners will show effective skills in all aspects of their work and competently assess their techniques and creative choices. They may not always offer full justification for their ideas and decisions but will have a clear focus and will show some reasonable planning and management skills. At distinction level, learners will be creative and imaginative in all of their practical activities and show strong technical skills and competences, always justifying their decisions with relevant and useful exemplification.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 29: 2D Digital Graphics

Introduction

This unit requires learners to produce a range of assessment evidence that details their skills in, and understanding of, 2D digital graphics. The flow of tasks provided in the guidance allows learners to progress through the unit and build a portfolio of evidence that could take the form of an online space in which all of their work is brought together.

Learning aim A – Investigate the purposes and characteristics of 2D digital graphics

The purpose of learning aim A is to provide learners with an in-depth knowledge and understanding of a range of 2D digital graphics that will inform their production activities and allow them to produce work that is fit for purpose.

- When looking at the purposes of 2D digital graphics, learners need to be provided with a range of illustrative examples sourced from different media. It is important that these examples cover the following range:
  - illustration
  - information
  - education
  - branding and corporate identity
  - product functionality.

- Ask learners to conduct an analysis of each example and make detailed notes on the style, content and layout of the graphics used. They should record their findings within their portfolios to evidence their understanding of why and how graphics have been used in each piece.

- Learners should then begin to conduct independent research and analysis of 2D graphics that will allow them to evidence their understanding of different products and platforms. They could identify and break down each element and decide on the relevance and fitness for purpose of each piece of graphics used within the work they are investigating. You could provide them with prompts or starting points but they should be able to identify the reasons behind the use of each portion or section of graphics and how they are intended to appeal to the audience. Again, learners should keep evidence of their investigations within their portfolios in the form of annotated images and expansive notes, and all source materials should be kept and referenced appropriately.

- Learners should explore vector graphics and bitmaps and identify the characteristics of these. You should give with illustrative examples to work through and annotate. Encourage them to work in pairs to identify and discuss their findings, but they should individually record their findings within their portfolios. Learners should go beyond bullet pointing information and merely labelling examples and should provide explanation and detailed exemplification within their work.

- In particular, learners should consider the ways in which their research will inform their own use of digital graphics in the next learning aim.

Learning aim B – Explore the use of digital graphics tools and techniques for specific media purposes

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of digital graphics tools and techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

- Explorations into the use of digital graphics should be expansive and include a range of sectors and media. Encourage learners to experiment with a range of different materials and equipment wherever possible and to record all of their activities in appropriate formats.

- An illustrated presentation should be used to introduce learners to the idea of semiotics and the use of denotation and connotation. This may be the learners' first interaction with the subject and they should be given opportunities to discuss how semiotics have been used in relation to a range of illustrative examples.

- Learners should explore graphic styles, deciding how they are also used to create meaning and encode a message in the mind of the audience. They could do this through searching for examples that they feel clearly illustrate this. They should be able to identify how meanings and messages have been achieved and keep a record of their findings within their portfolios. They could extend and illustrate their knowledge and understanding by producing some graphics of their own.

- Tutor-led or online tutorials could be provided so that learners have opportunities to interact and experiment with vector drawing tools and digital bitmap graphic tools and techniques. Give them mini-tasks that allow them to use as many tools as is practicably possible and experiment with different styles and sizes.

- Learners should evidence their experimentation though screen shots of their working practices that have been annotated to show the development of ideas and changes that have been made; they must indicate at all times why they have made these changes and provide suitable justifications. Tutor guidance and feedback can be given while learners experiment with their graphics and they would also benefit from peer assessments and feedback. They could do this by presenting their work to the class and asking groups to put forward their thoughts and options. This will allow them to reason through their choices and provide justification for their ideas.

Learning aim C – Create digital graphics for media products

Learning aim C is designed to allow learners to plan and undertake their own production activities. This will, ultimately, need to be undertaken using a set brief when generating assessment materials, but mini-projects could also be carried out to allow learners to experiment with the skills and techniques that they will need to apply.

- Learners should be given access to planning documentation that is appropriate to the medium and that will allow them to plan their ideas effectively. This can either be tutor-generated or sourced from online resources. Learners should generate a range of ideas and select the most appropriate ones according to medium and fitness for purpose. They should be given sketchbooks or online drawing tools to plan and sketch out their ideas and they should clearly identify their target audience throughout. Learners should identify any technical constraints and legal and ethical issues that may apply to their work and should justify why these are appropriate. Finally, learners will need to select and record the range of resources, techniques and processes that they will use in order to execute the range of production tasks that they will need to undertake. They could provide relevant images and illustrative examples within their portfolios and should clearly justify all of their choices throughout.

- Access to appropriate production equipment and software will be essential for learners to be able to produce evidence for assessment competently. They will need to evidence their working practices clearly and effectively. While tutor observation is appropriate, there should also be suitable additional evidence such as explanations of processes and decision making, and screen shots and annotations of the development of their materials from concept to completion.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 14: Digital Magazine Production*
- *Unit 27: Digital Photography*
- *Unit 28: Image Manipulation Techniques*
- *Unit 30: Page Layout and Design for Digital Media*
- *Unit 33: 2D Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

For this unit, learners must have access to industry standard software throughout the duration of teaching and learning delivery. They should also be encouraged to make use of current publications via a learning centre or online resources.

Textbooks

- Clayton M and Hashimoto A – *Visual Design Fundamentals: A Digital Approach, 3rd Edition* (Cengage Learning, 2009) ISBN 9781584505815.
  This book offers a detailed approach to visual graphic fundamentals.

- Klawonn F – *Introduction to Computer Graphics: Using Java 2D and 3D* (Springer, 2012) ISBN 9781447127321.
  This is a solid, introductory guide to creating 2D and 3D graphics using Java.

- Pile J – *2D Graphics Programming for Games* (CRC Press, 2013) ISBN 9781466501898.
  This book provides guidance on how to create 2D graphics for gaming.

Websites

- www.fileformat.info
  This website offers information and guidance on file formats.

Unit 30: Page Layout and Design for Digital Media

Delivery guidance

Approaching the unit

The basis for this unit is the fact that designers in a contemporary digital media environment are required to produce complementary designs across different media formats. For example, a company will want consistency across their emails, newsletters, website, brochure and business cards. This unit should provide learners with the opportunity to understand that good design is underpinned by a series of important design principles.

These recurring and overlapping principles do not exist in isolation and the principles of page layout design should not be thought of as aspects of analytical comparison but practical techniques to be used as the basis of experimenting with different ideas for page layout designs. Maintaining a digital scrapbook of page layouts throughout the unit will provide a valuable resource for learners as they begin to identify – and more importantly use – different design principles within their own work. The more examples of different design techniques to which learners are exposed, the more opportunities they will have to further their understanding of how effective design combines different design principles and practices depending upon the audience and purpose.

Learners will need to develop the practical skills to implement different design techniques across printed and digital media layouts. Learners should not be taught how to use a particular software package but be given transferable skills in page layout design techniques. For example, learners should not be taught, specifically, how to use Adobe Dreamweaver to create webpage layouts but how to set a consistent font, font-size, font-weight, font-style and line-height for a webpage through an external cascading style sheet (CSS). In essence, learners will need to know how to use appropriate tools and techniques in order to control their page layouts and ensure consistency between page layout designs in different formats.

Delivering the learning aims

Learning aim A should give learners an opportunity to explore the principles of page layout design through a series of practical and analytical activities. Balance, alignment, contrast, repetition, proximity and emphasis can all be introduced through demonstrations, tutorials, workshops and practical exercises that enable learners to consolidate their understanding of what the design principles are, how they are used in different media formats and their effect. It is best to explore the combined effect of these design principles through the textual analysis of page layout designs across different media formats. It is also important that learners consider the effect of alternative page layouts that deliberately break the established rules of page layout design.

Grid layouts, typographical techniques and creating style and impact within page layout design should be delivered through practical activities, which enable learners to experiment with different layout designs before comparing the outcomes. This approach will support learners to develop a deeper understanding of the principles of page layout design that will inform their own design work later in the unit. For example, Grid by Example provides code samples and worked examples of different website layouts with which learners

can experiment. Learners' understanding of these aspects, for example selecting typefaces, should still be supplemented through the textual analysis of a wide variety of examples of different page layout designs.

The difference between printed and digital page layouts can be explored through an analysis of different layouts for the same organisation across different media, for example printed marketing materials (leaflets, brochures, flyers etc.) and digital layouts across various devices (websites, tablets, smart phones etc.). Such analysis will provide learners with an understanding of common design techniques and terminology and the different design considerations when working across different formats.

A starting point for learning aim B would be how to create master pages and page templates for printed and digital page layouts. This will enable learners to build consistency and repetition into their design work through an understanding of master items, placeholders and editable regions. Learners must be able to use style sheets to create paragraph, character and object styles for print media layouts and CSS style sheets for digital media layouts.

Techniques for working with text, images and colour, such as font replacement methods for digital layouts, wrapping text around objects, captioning and adding borders, gradients and transparencies, should all be introduced through practical activities. These could include demonstrations, workshops, guest speakers and tutorials. One practical exercise that would introduce learners to the similarities and differences between working with text, images and graphics in printed and digital media would be to create the same page layout for a magazine page and webpage, using both desktop publishing and web design software.

Learners could be supported through the provision of assets, templates and partial or full code samples to experiment with. Providing learners with the assets for a practical exercise will enable them to focus on developing the fundamental skills, knowledge and understanding of page layout and design, which will help them to produce consistent and effective designs across different formats.

Learning aim C covers the production of page layouts for a specific audience and purpose across both printed and digital formats. Learners should be given a mock creative brief – for example to produce page layouts for a new music magazine that will be published in print and online formats. Working individually or in pairs, learners should be prompted to constantly review their progress and suggest possible improvements to their design work.

Learners should engage in the entire design process and working on a mock design brief will enable them to experience the process of generating ideas in response to a brief and expressing those ideas visually through moodboards, sketches, page comps and style guides/tiles. Although learners may select their assets from asset banks, practical workshops to demonstrate asset preparation techniques and the opportunity to practice scaling, cropping and optimising images, compressing audio and video files and saving graphics in appropriate file formats, would benefit learners.

Mock design projects are also helpful for developing the ability to produce page layout designs in different media formats that complement each other, appeal to the intended audience and skilfully combine design principles and techniques. The final step in the creative process is to test digital layouts and proofread printed layouts prior to publishing the finished design work in an appropriate format for each chosen platform.

Learners should also be encouraged to reflect upon how effectively they have recorded the process of producing the finished page layouts and to consider alternatives before they undertake any assessment activity.

Learning aim	Key content areas	Recommended assessment approach
A Understand the principles of page layout design	**A1** Common principles of page layout design **A2** Differences between digital and printed page layout outcomes **A3** Visual communication	An interactive report (blog, e-portfolio, e-book, presentation) that compares how both digital and printed page layout designs use common design principles for a specific audience and purpose in the respective media. The analysis of the page layout designs can take any suitable format, for example written, narrated screen recordings, annotated illustrations, audio and/or visual recordings.
B Develop skills in page layout design techniques for digital and printed media products	**B1** Constructing a new document **B2** Working with text **B3** Working with images and graphics **B4** Working with colour	A blog or sketchbook that documents the learners' page mock-ups in digital and printed media formats. Evidence will clearly demonstrate the use of a wide range of techniques in page layout design. Learners will also reflect upon the outcomes of their experimental work with different layout techniques and design principles.
C Produce page layouts for digital and printed media products	**C1** Responding to the brief **C2** Generating ideas for page layout design **C3** Creating page layout designs in digital and printed formats	A blog or sketchbook that records the process of producing layout designs in both digital and printed formats in response to a design brief. Learners will provide evidence of the whole production process, including planning, asset preparation and developing the final layout designs.

Assessment guidance

The interactive report produced in response to learning aim A, should compare how both printed and digital page layout designs use common design principles for a specific audience and purpose. The analysis of the page layout designs can be presented in any suitable format, for example written report, narrated screen recordings, annotated illustrations, audio and/or video recordings.

In response to learning aim B, learners must demonstrate the purposeful and accomplished use of design techniques to creatively combine text, images, graphics and colour in both printed and digital media products. Learners will need to provide suitable evidence of their use of a wide range of techniques in page layout design and evaluate the outcomes of their experimental work. The evidence for assessment could include a blog or sketchbook documenting the development of each learner's page mock-ups in both printed and digital media formats.

Learning aim C requires learners to produce page layouts for both digital and printed media products. Each learner should provide evidence that records the process, from idea generation to the production of sophisticated page layouts, of producing page layout designs in both digital and printed formats in response to a design brief. The page layouts should represent an imaginative response to the brief. A suitable record of the whole production process is required, including evidence of planning, asset preparation and developing the finished layout designs.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

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Unit 30: Page Layout and Design for Digital Media

Introduction

To introduce learners to the unit, a variety of page layouts in printed and digital formats should be made available for learners to compare. Pinterest is a valuable resource for page layouts across different media formats and learners should be given a demonstration of how to maintain a digital scrapbook of page layouts that can be used as a resource throughout the unit.

Practical 'jigsawing' exercises, where learners fit together different page components into page layouts for different media formats can be set up using page layout and web design software in order to introduce learners to important aspects of page layout design and common terminology.

Learning aim A – Understand the principles of page layout design

Learners are building up to the following assessment: create a presentation and accompanying script on the Principles of Page Layout Design. The presentation should evaluate:

- o how the common design principles of page layout design have been used to visually communicate ideas in different digital and printed media products
- o the current trends in page layout design and examples of unconventional page layout design
- o the differences between digital and printed page layout designs.

Learners could be introduced to the key design principles of contrast, repetition, balance, alignment, proximity and emphasis through an explanation/demonstration from a tutor or guest speaker, such as a designer in a local firm or undergraduate on a design course. Learners could then consolidate their understanding by carrying out a series of practical exercises, such as the following.

- Working in groups, learners could be given the same assets and asked to experiment with balance in a magazine page layout by creating symmetrical, asymmetrical and radial layouts from the same page components, before analysing the effect of each layout.

- Learners could be given examples of web page layouts that do not use proximity effectively and, working in pairs, they could try to improve the layouts through the grouping of related items.

- Learners could be given the basic page layout for a newsletter and, working in groups or pairs, create contrast in the page layout. Other learners could then compare the most/least effective outcomes.

- Learners could be given the same assets in order to experiment with alignment. Working in a group, each group member could be given an alignment technique, such as horizontal, vertical, edge, centre, visual or breaking alignment, to create a page layout for a flyer and then the other learners could compare the effects of the outcomes.

- Repetition can be introduced through a style sheet workshop. Learners can be shown how to create a paragraph style in page layout software and/or an external CSS in web design software, covering alignment/justification, indents, spacing before and after paragraphs, tabs, hyphenation, colour and character options (e.g. font, style, leading, kerning and tracking and scaling). Working in groups, learners can then apply different styles to existing page layouts and compare the outcomes.

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- Learners could be given the assets for a web page and, working in groups, each group member should emphasise certain components on the page through a visual hierarchy, the use of white (negative) space and the use of focal points. The effectiveness of the different outcomes should be discussed and compared.

- Grid systems can be introduced through layout workshops, where learners are shown how to manipulate columns, margins and gutters in print media and grid structures in web design. There are many grid systems for web design that learners can experiment with, such as The 960 Grid System, Gridset and Gridpak. Learners will then be in a position to create common page layouts, for print and digital media, using the provided assets. The rule of thirds, golden ratio and the use of a focal point(s) for the page can all be used within the layouts that the learners create and compare.

- Typography can also be introduced practically through workshops in page layout and web design software. Learners should be given the opportunity to recreate the typography in page layouts for print and digital media and experiment with the effects created by different typographic techniques.

- Learners should also be given an opportunity to consider current trends in page layout design and unconventional page layouts, which deliberately break the established rules that learners have been introduced to in the lessons to date.

- Working in groups, learners could select a page layout to analyse in relation to how effectively the principles of page layout design have been adapted for a specific audience and purpose. This textual analysis should be extended, informed and improved following the ideas from other members of the group.

- In order to analyse the differences between digital and printed page layouts, learners could prepare a presentation comparing one printed and one digital layout for the same organisation, covering:
  o the purpose of layouts for different media formats
  o social, cultural, political and economic factors affecting the page layouts
  o the appeal to the audience(s)
  o establishing and maintaining a corporate identity
  o fixed and responsive page layouts
  o the differences in content and page components
  o the impact of interactivity.

- In particular, learners should consider the ways in which their research will inform their own use of page layout and design techniques in the next learning aim.

Learning aim B – develop skills in page layout design techniques for digital and printed media products

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of page layout design techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Learners will be building up to the following assessment: in response to a creative brief, produce:
  o a record of your experimentation using different layout design techniques
  o page layout mock-ups in both digital and printed formats.

- Following a demonstration from the tutor and/or their peers, learners will be able to experiment with setting up document preferences, creating master pages and establishing a baseline grid in print layouts and creating page templates and responsive grid frameworks in digital layouts.

- Learners would benefit from a typography workshop led by a guest speaker, such as a professional designer, covering the similarities and differences in working with

text in printed and digital layouts. For example, setting leading in a paragraph style sheet and line-height in a CSS or setting text wrap in page layout and web design software.

- Learners could be set a design challenge to combine text and images to reproduce particular page layouts, following a demonstration on working with images and graphics. Learners should also experiment with different methods of recording the experimental design work and review the effectiveness of both the page layouts and the methods of recording the design process.

- Learners could prepare a presentation on Working with Colour to include using colour scheme generators (such as Paletton or Adobe Kuler) and the differences between colour in printed page designs and digital page designs.

Learning aim C – Produce page layouts for digital and printed media products

Learners are building up to the following assessment: produce a page layout design solution for a new magazine that will be published in print and online.

This should include visual interpretations of the brief, a record of the design process and the final layouts in print and online formats.

- Using a mock brief for a music magazine as a stimulus, learners should provide a response to the brief. An initial client meeting is one way for learners to clarify the nature of the brief and the client's requirements. Learners could then produce an aide-memoire highlighting the key requirements of the client brief.

- Generating ideas in response to a creative brief is an essential part of the design process and learners should engage in activities such as:
  o compiling an audience profile
  o creating moodboards
  o sketching page layouts
  o planning the layout of page components – page comps, style guides/tiles, element collages.

- The next stage in the creative process should be to produce different page mock-ups in suitable graphics software packages (such as Adobe Photoshop and Fireworks) and/or wireframes and prototypes for digital page layouts (using frameworks such as Bootstrap or Foundation). Peer assessment, audience feedback or feedback from the client should be sought at this stage before proceeding to developing the final page layouts.

- Learners should be given asset banks from which to select suitable items depending on the audience and purpose. Learners will need to be shown how to:
  o organise the assets – using appropriate naming conventions and an appropriate folder structure
  o compress and save assets in appropriate file formats
  o scale, crop, edit and optimise images
  o create and prepare graphics
  o save text files for use in digital page layouts.

- Learners should work independently to produce page layouts in printed and digital formats. You should suggest self-assessment strategies to the learners to encourage them to review, refine and improve their practical work.

- Working in groups, learners should devise a method of recording the testing of digital page layouts and the proofreading of printed layouts prior to publishing the finished design work in an appropriate format for each chosen platform. Learners should compare and evaluate the effectiveness of each recording method at the end of the mock project and suggest possible improvements to the work itself and the methods of recording the entire design process.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 9: App Production*
- *Unit 12: Website Production*
- *Unit 14: Digital Magazine Production*
- *Unit 29: 2D Digital Graphics*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Dabner D and Stewart S – *Graphic Design School: A Foundation Course for Graphic Designers Working in Print, Moving Image and Digital Media*, 5th Edition (Thames and Hudson Ltd, 2014) ISBN 9780500291436 – This book provides information on digital imaging techniques, motion graphics and designing for the web and small-screen applications. The book is divided into two sections: principles and practice.

- Miller B – *Above the Fold: Understanding the Principles of Successful Web Site Design* (HOW Books, 2014) ISBN 9781440336669 – This book covers the fundamentals of effective graphic communication set in the context of web design and includes features such as layout, usability and measurement that lead to a successful digital product.

- Pipes A – *How to Design Websites* (Portfolio(Laurence King), 2011) ISBN 9781856697392 – Covering website aesthetics and showing examples of good design, this book addresses the skills required to produce functional and elegant website designs. Chapters include Code, Layout, Text and Typography, Images and Colour Schemes.

- Williams R – *The Non-Designer's Design Book, 4th Edition* (Peachpit Press, 2014) ISBN 9780133966152 – Covering the fundamental principles of great design, this book contains practical design advice and inspiration.

Magazines

- .net
- Web Designer

These two magazines are the leading authorities for web creatives and designers with expert guides covering next-gen technologies such as HTML5, CSS3, jQuery, WordPress and mobile apps.

Websites

- designingfortheweb.com – This is an online resource covering the design process, typography, colour and layout.

- designshack.net – This website showcases inspiring web design, alongside resources and tutorials for creating designs for digital page layouts.

- w3schools.com (World Wide Web Consortium) – This website covers tutorials, references and examples of HTML layouts.

Unit 31: Coding for Web-Based Media

Delivery guidance

Approaching the unit

This unit looks at the three coding languages that are predominantly used to build web-based media products. These are HTML, CSS and JavaScript. The premise of this unit is that learners will move beyond creating websites through the tools included within web design software to begin writing and editing the code for web-based products directly.

Learners should be encouraged to experiment with JavaScript in the browser console, for example Firefox or Chrome, which will allow them to write and run JavaScript code. Note that, if learners are using Firefox, it is recommended that they use the Firebug add-on to allow them to test and debug the code. There are also web applications that will allow learners to write and test (HTML, CSS and JavaScript) code in the browser – such as JSFiddle.

The principles of progressive enhancement determine that the HTML (content layer) is written first, then the CSS rules (presentation layer) are written in a separate external CSS style sheet and the JavaScript (behaviour layer) is added at the end to enhance the usability of the page. Learners should be encouraged to adopt a progressive enhancement approach to writing code. Moreover, some users will view web-based products with the JavaScript turned off and learners should ensure that their products still work if this is the case.

Asset banks containing images, graphics, animations, audio and video files should be made available to learners to enable them to focus on the coding aspects of developing a web-based product without becoming distracted by producing the content itself.

Delivering the learning aims

Learning aim A should provide learners with the understanding to write and edit JavaScript. Initially, the JavaScript programming basics should be established through a demonstration workshop led by the tutor or a guest speaker, who could be a developer in a local agency or an undergraduate on a web development course. Learners will need to learn the vocabulary, grammar and syntax of JavaScript. However, this can still be approached practically through activities that require learners to write and run JavaScript within HTML files (although at this stage the HTML and CSS files should be given to learners to enable them to focus on writing JavaScript). Error handling and debugging techniques (such as using the browser developer tools to debug the code, find the source of an error and fix it) should be introduced as early as possible and revisited throughout the unit, rather than used as a bolt-on at the end of the unit.

Learners will need to know how the document object model (DOM) defines methods and properties to access and update each object, determining what the user sees in the browser. This, however, does not prevent learners from using frameworks, such as jQuery, to select elements, perform tasks and handle events.

A combination of demonstrations, workshops, practical projects and video tutorials should provide variety and differentiation for learners as they develop their understanding of how to write and edit JavaScript. Moreover, templates and

source code (full and/or partial) can also be used at this stage to support learning.

Learning aim B should be approached practically, as this will provide learners with the basic knowledge and understanding of the coding techniques that are required to fulfil the assessment criteria for learning aims B and C. Demonstrations from an expert, such as the tutor or a guest speaker, will give learners an understanding of how to write and edit HTML and CSS code. These should be followed by practical workshops to allow learners the opportunity to experiment with HTML and CSS coding techniques, such as using HTML lists and creating links, styling text and images and controlling the page layout with the CSS position property.

Working in pairs to add audio and video to a web page, using both a hosted service and the HTML5 audio and video elements, will provide learners with the opportunity to compare outcomes and suggest possible improvements. Learners should be encouraged to experiment with the attributes associated with the HTML5 audio and video elements and customise audio and video controls.

Building forms gives an opportunity for learners to combine HTML, CSS and JavaScript. Each learner could write the HTML, CSS and JavaScript to create a basic login form that lets a user enter a username and password and which, when the user submits the form, is then replaced by a welcome message. This task could be extended to create more complex forms using extra properties, methods and events and form validation using JavaScript.

Instructions for adding audio, video and forms to a webpage could be delivered through video demonstrations and the full or partial source code could be given to learners, in order to support differentiated learning.

Learning aim C covers the creation of an interactive web-based product. Learners should be given a mock creative brief, for example to produce a one page website for a local band, including a responsive layout, video of the band, a photo gallery, the band's Twitter feed and a contact form. Working individually or in pairs, learners should be prompted to continuously review progress and suggest possible improvements to their design work.

Learners will need the opportunity to experiment with techniques for creating web-based products that work on different devices and screen sizes, for example, using flexible layouts, media queries and flexible media. Moreover, using JavaScript or JQuery to add interactivity to pages through accordions, tabbed panels, modal windows, image galleries and responsive sliders will all require practice, experimentation and reflection. Furthermore, incorporating application programming interfaces (APIs) into web-based products, such as Google Maps, will also require demonstration, practice and reflection in order to refine the necessary coding skills to produce a webpage that meets the client's requirements and provides an effective user experience.

Learning aim	Key content areas	Recommended assessment approach
A Understand how to write and edit JavaScript	**A1** Writing JavaScript statements and organising them into code blocks **A2** Using JavaScript to access and change HTML elements with the HTML DOM (Document Object Model) **A3** Error handling and debugging	An illustrated report with detailed examples of how JavaScript code is written, how it is applied to a web page, how it works in a browser and how errors can be fixed. The report should be presented in an appropriate format, for example blog or e-portfolio, with links to the examples.
B Investigate how HTML and CSS are used to build web-based products	**B1** How HTML is used to create web pages **B2** How CSS is used to control the styling and layout of web pages **B3** How to add multimedia assets to a web page	A web page produced in response to a brief with multimedia content. A record and evaluation of the process of production, for example annotated screenshots, annotated code, screen recordings, production logs, audio/video diaries.
C Create an interactive web-based product	**C1** The development process **C2** Adopt responsive web design techniques **C3** Add interactivity to web pages through JavaScript **C4** Incorporate application programming interfaces (APIs) into a web page **C5** Validate forms using JavaScript	A responsive web page produced in response to a brief, incorporating interactive content. A record of the process of production, for example annotated screenshots, annotated code, screen recordings, production logs, audio/video diaries.

Assessment guidance

The illustrated report produced in response to learning aim A should evaluate how JavaScript is integrated within web-based products and how browser tools and coding techniques can handle errors and debug JavaScript. The evidence could be presented in any suitable format, for example a blog or e-portfolio with links to detailed examples.

In response to learning aim B, learners must combine HTML and CSS coding techniques to produce a user-friendly web-based product with integrated audio and video content. Learners will need to provide a suitable record of their development work and an evaluation of the outcomes. The evidence for assessment could include annotated screen shots, annotated code, screen recordings or a production log/blog to show how HTML and CSS are combined within web-based products.

Learning aim C requires learners to create an interactive web-based product using coding techniques in HTML, CSS and JavaScript. Evidence should be provided to show that the product responds to different devices and screen sizes. The product should be designed and developed to meet the needs of a specific audience and purpose and contain imaginative and engaging content that significantly enhances the user experience, for example interactive content, forms and APIs. A suitable record of the process of production is required, including evidence of coding and testing the product.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 31: Coding for Web-Based Media

Introduction

As an introduction to the unit, learners should be able to use a variety of web-based products. These examples should include products with engaging user experiences, created through the combination of page elements and interactivity, and products that adapt to different devices and screen sizes. It is important that, at the start of the unit, learners are introduced to the potential of effective combinations of HTML, CSS and JavaScript.

Viewing the source code for the HTML and CSS files will help learners to understand the structure, purpose and relationship between HTML and CSS code. Learners can also be introduced to DevDocs (source: devdocs.io), which is a searchable interface of documentation for HTML, CSS and JavaScript.

Learning aim A – Understand how to write and edit JavaScript

Learners are building up to the following assessment: create an illustrated report for junior web designers that will provide them with a detailed guide on:

- o how to write JavaScript
- o the uses of JavaScript
- o detailed examples of how a web page responds to user actions through the DOM
- o how errors are handled and the JavaScript debugged.

Learners could be introduced to JavaScript programming concepts through a demonstration from a tutor or guest speaker, who could be a developer from a local company or an undergraduate on a web developer course. Learners could consolidate their understanding through a series of practical exercises, such as:

- o writing a JavaScript file to add a greeting to a web page depending on the time of day and incorporating the .js script file within the (provided) HTML file using the <script> element
- o using Variables and Data Types to write and run a JavaScript file to calculate the cost of a sign depending on the number of letters used
- o using Functions, Methods and Objects to write and run a JavaScript file to check the room availability at a fictional hotel
- o experimenting with Global Objects to display the date and time
- o using Decisions and Loops to write and run a JavaScript file to display different messages depending upon the number of marks scored in a quiz
- o using the DOM to amend the colours of individual items in a shopping list app
- o incorporating JavaScript content panels, such as an accordion, tabbed panel, modal window, image gallery and responsive slider
- o using the console and dev tools built into the browser to find errors, common problems and how to solve them and how code can deal with potential errors gracefully using try, catch and finally.
- In particular, learners should consider the ways in which their research will inform their own web-based products in the next learning aim.

Learning aim B – Investigate how HTML and CSS are used to build web-based products

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of coding for web-based products that they carried out in the first learning

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aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Learners are building up to the following assessment: in response to a creative brief, produce:

- o a detailed record of the development of a web-based product to document the process of drafting and revising the HTML, CSS and JavaScript code.

- As an introduction to HTML, learners could have a demonstration on setting up a folder structure for a web-based project and how to declare DOCTYPES and use Metadata.

- Learners could then take part in an HTML workshop to experiment with writing HTML to structure the content of web pages and apps. The workshop should cover writing HTML for text, images and links. Grouping elements could be covered as an extension activity in the workshop.

- Learners could be set a design challenge to combine text and images to reproduce a page layout from a wireframe. Adding comments to the HTML code would explain why each element has been included. The activity could then be expanded to include representing information in a table.

- As an introduction to CSS, learners could have a demonstration on writing CSS rules, using CSS selectors, properties and values and linking external CSS style sheets to a HTML file.

- Having organised the content of a web-based product through the HTML, learners will now be ready to experiment with CSS rules in a CSS workshop, which should cover the different ways to specify colour and measurements and how to style text, images, links, boxes and tables.

- Learners could work in pairs to combine HTML, CSS and JavaScript to create forms, style them and add form validation. In pairs, learners could produce a simple guide on 'how to create web forms' for Key Stage 4 students.

- Working in groups, learners could all be given the same HTML pages and then each group member could create a different page layout through CSS positioning techniques. The group members could then compare the outcomes, suggesting strengths, weaknesses and possible improvements for each layout.

- Working in pairs, learners could follow a video tutorial on how to add video or audio to a webpage using a hosted service. One of the learners could then embed audio to the web page using the HTML5 audio element, while the other learner uses the HTML5 video element to add video to the page. Peer assessment can be used to compare the outcomes and suggest possible improvements.

Learning aim C – Create an interactive web-based product

Learners are building up to the following assessment: produce a website with a responsive layout that resizes for different devices.

- Using a mock brief (e.g. create a one page website for a local band) as a stimulus, learners should plan a page either through a sketch, wireframe or prototype. The client's requirements should include a responsive layout, audio-visual content, interactivity (e.g. a photo gallery), an API (e.g. the band's Twitter feed) and a form (e.g. a contact form).

- The next stage in the creative process should be to write the HTML and CSS to add content to the page, then style and position it. This process should be recorded through annotated screen shots, annotated code, screen recordings, video or audio diaries and/or production logs. Learners should also evaluate the effectiveness of different methods of recording the development of the HTML and CSS. The pages should be tested in a browser and the outcomes/further actions recorded.

- Following a demonstration from a tutor or guest speaker (for example a developer from a local agency), learners should work collaboratively to produce a responsive

page layout and test the outcomes across different devices. Once again, the outcomes of the testing should be recorded, along with any actions taken or improvements made.

- Learners should work independently to add interactivity to their pages through JavaScript. For example, this could be an image gallery of photos of the band.
- Finally, following an appropriate workshop/practice exercise, learners could incorporate an API into their web page (e.g. the band's Twitter feed).

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*
- *Unit 9: App Production*
- *Unit 12: Website Production*
- *Unit 30: Page Layout and Design for Digital Media.*

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Duckett J – *JavaScript & JQuery: Interactive Front-end Web Development* (John Wiley & Sons, 2014) ISBN 9781118531648.
  This book covers core programming concepts in JavaScript and jQuery and demonstrates the latest practices in progressive enhancement and cross-browser compatibility.

- Howe S – *Learn to Code HTML & CSS: Develop and Style Websites (Voices that Matter)* (New Riders, 2014) ISBN 9780321940520.
  This book covers the basics of HTML and CSS, such as the different structures and common terms, through practical techniques.

- Wilton P and Mc Peak J – *Beginning JavaScript*, *4th Edition* (Wrox, 2014) ISBN 9780470525937.
  This book gives step-by-step guidance for creating powerful web apps with JavaScript.

Magazines

- .net
- Web Designer

These two magazines are the leading authorities for web creators and designers with expert guides covering next-gen technologies such as HTML5, CSS3, jQuery, WordPress and mobile apps.

Websites

- codeacademy.com – This website contains free interactive tutorials on HTML and CSS, and JavaScript.

- devdocs.io – This website is an offline API documentation browser with docs covering HTML, CSS and JavaScript.

- w3schools.com (World Wide Web Consortium)

This website covers tutorials, references and examples of JavaScript and jQuery Mobile.

Unit 32: Concept Art for Computer Games

Delivery guidance

Approaching the unit

Concept art is an established and exciting specialism within the ever-changing technical and visual world of computer gaming. In this unit, learners will explore a range of media, techniques and processes and then apply these to create concept art for computer games.

Delivering the learning aims

Learning aim A is about providing your learners with the underpinning knowledge of the characteristics and purpose of concept art in this evolving industry as well as the media, techniques and processes used. This can be achieved by exploring commercial examples of concept art for computer games. This gives you a great opportunity to enthuse learners through a range of examples from different gaming platforms and different genres of games. These examples of concept art should demonstrate expected as well as unconventional drawing and visualising materials, techniques and processes but also should come from a broad range of gaming sources. The concept art examples you provide could also be from a broad range: not only character based, but also architectural, environmental or object based. These examples do not have to be purely representational; they can be abstract or expressive.

Learning aim A also offers opportunities for visits to, or from, industry practitioners. Such visits will enable learners to experience and discuss different and unique approaches to concept art. Learners should be encouraged to share their own examples, which can then be used as inspiration for discussing issues around concept art with practitioners. Industry visits could be structured so that learners can discuss and write questions before the visit. Questions should include topics such as drawing and visualising materials, techniques and processes as well as the characteristics and purpose of concept art. If access to an industry visitor is not possible, then there are numerous print and digital references available to enthuse and excite learners around concept art issues and processes.

Learning aim B is about learners researching and developing an idea for concept art for a gaming brief. After the initial analysis of the brief, which may include recapping advice from the industry visitor, you should try to get your learners to enjoy the challenge of coming up with ideas in response to briefs. This includes exposing them to what exists already but also initiating discussion on what could exist commercially. This can be through peer working and encouraging learners to brainstorm, mind map and try alternative ways to generate ideas, for example through word associations. As a large part of gaming involves using imagination and suspending reality, getting learners to speak out ideas to each other and then digitally recording these may help learners generate ideas that could be lost through the more formal process of pen and paper. It is also important to ensure that there are separate learning sessions for colour study tests. These will help to ensure that important activities do not get overlooked as learners become excited by the visualisation of the concept art. This same principle can also be

applied to annotating and reflection, as this may also diminish as a priority for your learners as they become immersed in their visualisations.

A significant part of this, and all other learning aims, is learners reflecting and writing about their own work in progress. This includes continuing to write and reflect on others' work. For example, learners might write key words related to briefs or write their own back-story, or they might engage in more analytical reflections on their own work. It is important to allow regular time in sessions for learners to write, then review and reflect on their writing, individually and through peer assessment.

For learning aim C, learners move from the idea selection stage, to quality mock-up and finally to final presentation. Learners will need a production plan to meet the final requirements. Learners may need assistance in this to ensure that it is realistic and achievable. Some learners may be content to develop one final idea but they may not be able to achieve the final production. Therefore, planning is an important stage for all your learners. Ask them to check and critique each other's production plans. Getting learners, for example, to discuss each other's visual language, tools, techniques and production plans will help keep each individual learner as part of the collective group. The production plan can be amended and updated as your learners progress towards the end of the brief. A regular cycle of bringing learners together to share good practice and review each other's progress will also help in this final production stage.

Finally, learners should present concept art appropriately using, for example, storyboards, layouts or presentation boards. Alongside this, learners should also have applied the most appropriate presentation content, such as close-ups, multiple views etc. Learners do not need to provide examples of all of these, although you may show commercial examples of all of them, in order to inspire learners about what they could achieve. You should encourage learners to plan and produce the most appropriate content and presentation to communicate their idea.

Learning aim	Key content areas	Recommended assessment approach
A Understand media, techniques and processes for concept art for games	**A1** Purpose of concept art **A2** Characteristics of concept art **A3** Drawing and other visualising media, techniques and processes	A visual report with examples of: ● concept art for games design ● each learner's own exploration into drawing and idea-generating techniques and processes.
B Develop ideas for concept art for a digital game	**B1** Conceptual development of ideas in response to a brief **B2** Visual development of ideas in response to a brief **B3** Evaluating and reflecting on work in progress	A logbook showing development of selected idea into final concept art. A presentation of final concept art. An evaluation of ideas and outcomes based on feedback, review and reflection.
C Produce concept art for a digital game for a specific audience and purpose	**C1** Produce final concept art **C2** Present concept art for game design	A logbook showing development of selected idea into final concept art. A presentation of final concept art. An evaluation of ideas and outcomes based on feedback, review and reflection.

Assessment guidance

Examples of the many forms of assessment include practical work contained within a logbook which contains research and development. Assessment will include presentation of a visual report of others' concept art, learners own research and development, and the final evaluation. It is important that the briefs, tasks and the assessment of these takes place within a vocational context.

Learners will need to produce work of a high qualitative standard at merit and distinction level. As such learners will be expected to demonstrate evaluative skills, analysis or sustained creativity to achieve the criteria for these levels.

You will need to inform learners of the media-specific health and safety requirements including recording protocols for safe operation of machinery and equipment. This includes digital health and safety issues, such as limiting the time spent solely looking at computer screens, and also health and safety issues relating to traditional processes, such as the safe use of scalpels and inks.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 32: Concept Art for Computer Games
Introduction Learners will need to explore media, techniques and processes used in concept art for computer games. Learners will then practically explore media, techniques and processes and develop ideas to create a concept art for a gaming brief.
Learning aim A – Understand media, techniques and processes for concept art for games

Learners will explore media, techniques and processes used in concept art. They will also explore the purpose and characteristics of concept art and compile this into a visual report.

- To start this unit, get learners to discuss, research and present examples of concept art for games. If you can, ask a concept artist from industry to come in and discuss the purpose of concept art and what being a concept artist involves. As it may be difficult to gain access to a concept artist, you can always use video-sharing websites and articles from gaming magazines to present a profile of a concept artist.

- In your own presentations used to introduce concept art, include a broad and unexpected range of examples. As learners' main experiences will be related to the computer side of concept art, ensure that you have a broad range of examples of concept artists who use materials or techniques beyond the expected and who use other than just digital tools and techniques.

- Learners will be willing to bring in their own favourite examples of commercial concept art for games. Encourage this for every session, as these can be presented to the rest of the class for discussion.
    - Learner's contributions can be complimented by themed discussions. These discussions can focus around how concept art fulfils certain criteria such as messages or the ideas behind the imagery.

- Whether using an example from your learners or one of your own, give at least two comprehensive analyses that explicitly relate to media, techniques and processes and the use of visual language. Learners can then apply this structured, analytical approach to help them to write their own reports on concept art.

- Learners should be exposed to technical vocabulary early in this project. It is therefore important to give learners a terminology and vocabulary handbook in which to write their own descriptions of key terms, techniques and processes.
    - You can begin by providing the first examples but, after this, encourage learners to make their own notes and fill in their handbook using their own words. Learners can check each other's handbooks to make sure that interpretations and definitions are correct.

- Finally, to end the learning aim, learners can present their reports on concept art to the class. This can take the form of visual and verbal presentations. In pairs, learners can write feedback from each presentation. Learners could then use this written feedback to improve their reports before final submission.

- In particular, learners should consider the ways in which their research will inform their own designs for concept art in the next learning aim.

Learning aim B – Develop ideas for concept art for a digital game

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of techniques and processes for the use of concept art in digital games that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For learning aim B, learners should research and then conceptually and visually develop ideas to fulfil a concept art brief.

- To begin, you can present the brief and encourage learners to brainstorm and present any initial thoughts, ideas or questions in relation to the brief to the whole class.

- After this, learners can individually brainstorm the brief and decide upon their own individual path within this. Learners can then generate mood boards.

  o These mood boards should be compiled from a range of sources, not just the internet. Encourage learners to use sources such as magazines, computer games image stills, newspapers and books. The mood boards should be directly inspired from the brainstormed key words, or from the back-story of a character or object, for example.

- Learners' research on visual styles should also come from a range of sources such as the internet, magazines, newspapers and books. Just as importantly, visual styles can come from existing concept art, computer games stills or from art and design movements, or from photorealist, cartoon or abstract representations, for example.

- Learners can begin a quick series of tasks and activities to practise drawing characters, objects, natural forms and architecture. The quick tasks should involve use of traditional media and materials to remind learners of the discipline and skill required in drawing.

  o From this, learners can practise one drawing in more depth. This will be for one area that is most suited to the brief. It may be anatomical, portraiture, still life or observational drawing, depending on whether they wish to take the brief down a character, architecture or object-related path.

- Learners should continually refer to their research so far. This should feed directly into the processes of thumbnails, sketching and mock-ups. Any health and safety issues or concerns should be recapped at each main stage of these processes. Sometimes you might do this with small groups of learners, at other times with the whole class.

- Learners can then start developing thumbnail sketches. Due to the practice in drawing from the previous task, learners should be able to sketch thumbnails quickly.

  o To ensure that thumbnails are quick and immediate, you may first ask learners to speak and digitally record their ideas. From this, learners have to listen to their recorded verbal ideas and then respond with thumbnails in very short timeframes, for example of ten-second duration.

- Learners can then take a selection of these thumbnails and convert them into development sketches and then basic mock-ups. These development sketches and mock-ups should have more detail than the thumbnails. Learners should regularly present their work for feedback from the class and then record this feedback into their folders or sketchbooks.

- As the brief develops and the tone and message of your learners' concept art becomes clearer, colour study tests should be explored. Begin by obtaining a range of printed paint swatches from a DIY shop. Learners can then annotate the mood and atmosphere of these colours and use them as inspiration for their own colour study tests, related to their concept art idea.

- You should continue to get learners to share good practice and regularly discuss challenges and opportunities. Throughout the learning aim, learners should regularly review their research, ideas and development against the requirements of the brief. Learners should also review their work in response to feedback from you, their peers, or potential users. These reviews should be comprehensively documented in their logbooks.

- Your learners should end this learning aim with a critique and discussion of the idea and mock-up they propose to develop into a final outcome. You will want to set an environment and tone within the classroom/studio for honest, constructive and friendly critical reflection. Learners should discuss the messages and meanings of their ideas and applied visual language. Notes from this discussion should be recorded in each learner's own logbook for use in learning aim C to begin creation of a production plan.

Learning aim C – Produce concept art for a digital game for a specific audience and purpose

In this learning aim, learners take a final idea and develop it into a final outcome that is appropriately presented and communicated.

- From the discussion in learning aim B, learners will have created a production plan. This plan should help them to structure their time so that they can fulfil the requirements of the brief successfully and within the allotted timeframe.
  - o You can give best practice examples so that learners are clear on the conventions and dos and don'ts of production plans. Learners can then be asked to check each other's production plans so that they are achievable and realistic.

- Learners should begin the process of creating their final outcome. This is not a linear process but a process of iteration, in which learners continually review and refine their outcome.

- To avoid learners becoming too focused on their own outcomes at the expense of new ideas or suggestions to improve, learners should regularly peer assess each other's work.
  - o You can structure this so that, in each session, a peer discussion takes place on a certain subject. These subjects could include visual language, use of colour, messages, specific techniques etc. This will help learners assess their own and others' work in a highly structured manner.

- Some learners may wish to create their final concept art using computer software programs. At the computer generation stage, learners can become very insular. As such, learners should be encouraged to regularly step away from the computer and again peer review each other's performance at that stage of the project.
  - o Learners should also identify and present any good practice to the rest of the class. Learners who work predominantly on the computer at this stage should compare their work against those who are primarily using traditional media. This will allow cross-referencing on which media, techniques and processes are most appropriate for the intended outcome, and will offer opportunities for mixed-media responses to concept art ideas.

- Learners can test and review their concept art on a person from their target audience. Alternatively, class peers (or you yourself) can be used to simulate the target audience.
  - o Before testing their concept art against the target audience, stimulate a class discussion and a brainstorm session that ends with an agreed set of questions to ask the interviewee. From the interview outcomes, learners could create a new action plan and use this to improve their concept art before the final critique.

- Learners should also discuss in small groups the most appropriate presentation technique for their intention.
  - You should show your learners a vast range of examples such as storyboards and presentation boards showing different views, close-ups, titling etc. to empower them with ideas on how to present. Learners should then create a short action plan on how to achieve this aim.
- In the session before the critique, learners could peer assess each other's work and undertake a final quality check. Learners should then present their concept art for computer games appropriately and in the correct format for their intentions. Achieving this can also be part of each learner's production plan.
- A final critique could then be used to verbally evaluate work before any final written evaluations.
  - Learners can support each other, not just by verbal contributions but by having a critical peer who writes and later interprets their feedback. This recording of critical feedback will be useful for learners who wish to refine their outcomes further before the final assessment.
- Finally, learners could present their work through a small exhibition in which other classes or year groups can visit and celebrate learners' achievements in concept art for games.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 34: Games Engine Scripting*
- *Unit 37: Visual Effects*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Harrison H – *The Encyclopedia of Drawing Techniques*, *2nd edition* (Search Press Ltd, 2014) ISBN 9781782212256.
  This book contains a detailed and descriptive approach to a broad range of drawing techniques using words and images.

- Kennedy SR – *How to Become a Video Game Artist* (Watson-Guptill, 2013) ISBN 9780823008094.
  This book includes a useful overview on the different type of concept art job roles as well as well as some general insight into drawing fundamentals. Written by an author who has worked in a range of roles in the video games industry.

- Solarski C – *Drawing Basics and Video Game Art* (Watson-Guptill, 2012) ISBN 9780823098477.
  This book has a useful section on drawing fundamentals as well as more advanced drawing techniques. There are also sections on character and environment design.

- Tuttle S – *Digital Expressions: Creating Digital Art with Adobe Photoshop Elements* (North Light Books, 2010) ISBN 9781600614545.
  This is a useful book with tutorials for learning both basic and advanced tools and techniques.

Journals

- *Computer Arts* (Creative Bloq)
  This journal is useful for examples of digital art and illustration. In some issues, it offers tips around the subject of concept art for games.

- *Creative review* (Centaur Media)
  This contains general contemporary graphic and visual culture. Although more biased towards graphic design, this journal is useful for some contemporary examples, interviews and articles on concept art and gaming.

- *ImagineFX* (Creative Bloq)
  This journal is specific to digital art and digital artists. It contains useful digital and sometimes traditional drawing tips around the broad area of digital art and concept art.

Videos

- https://www.youtube.com/user/computerarts
  Computer Arts magazine's own video tutorials on different types and uses of digital art. It also includes some traditional media as well as discussions and interviews with key industry figures.

- https://www.youtube.com/channel/UCY5h3NK0UTilkeOBTMSZZng
  (BAFTA's young game designers' YouTube channel)
  This includes video articles about working in games design and interviews with important commercial concept artists and lead artists.

Websites

- http://www.digitalartistdaily.com
  Digital art discussion and articles. This site is useful for step-by-step digital tutorials.

- http://www.digitalartsonline.co.uk
  Like digital artist daily, this is useful for articles and step-by-step digital tutorials.

- http://www.2dartistmag.com
  An e-magazine which includes interviews with industry practitioners as well as examples of contemporary 2D art and concept art. The website also has some additional interactive features.

- http://magazine.artstation.com
  A website with contemporary content related to gaming and concept art including interviews and articles about contemporary practitioners.

- http://www.creativebloq.com
  A website that has sections on graphic design, web design, 3D and digital art. It contains useful tips and articles on digital art and concept art.

- http://creativeskillset.org/job_roles_and_stories/job_roles/330_games_artist
  Creative skillset's web page on games (or concept) artists. It offers information about the work of concept artists for games and suggests routes into the profession. It also provides a web resource list to other related websites.

Unit 33: 2D Animation

Delivery guidance

The study of 2D animation should include an insight into the historical context of the medium and its development and growth over time. Learners will need to understand that animation covers a variety of purposes across a number of media sectors, including narrative animation for entertainment, information, advertising, music videos, games cut scenes, animated web content and interactive interface elements.

Learners will need to experience and engage with different techniques and uses of 2D animation. They will develop the skills they need to create a final 2D animation for use in a media product. They will need to make critical choices and evaluate their working practices at all times.

All learners should create a digital portfolio of work that should contain all of their explorations, planning and production work. A digital format would probably be the best means for doing this. Their portfolios can be used to highlight their skills and progress when applying for employment or higher education.

Approaching the unit

This unit is designed to provide learners with an introduction to a range of 2D animation techniques and allow them to develop skills in animation tools and production. They should be able to explore the work of past animators and professionals working in the field. This could be through their own explorations and tutor-generated materials.

Learners should have access to relevant hardware and software as outlined in the specification and delivery guide. The software used should allow learners to develop beyond basic skills in animation and be able to explore advanced techniques wherever possible.

Delivering the learning aims

In order to cover learning aim A successfully, you will need to introduce learners to materials that will support their study and explorations. These should take the form of existing products within a range of sectors, which learners should be encouraged to explore and analyse. This could take the form of content analysis and discussions around the uses of techniques to appeal to a certain audience and elicit an identified response. Learners could also be encouraged to undertake their own independent explorations into areas that they find more engaging.

Learners should be provided with resources, either books or links on the internet, that allow them to explore the development of animation techniques over time. You should give them relevant timelines and background information. This will provide a starting point for their explorations and a focus for their studies.

You should explore the characteristics of 2D animation techniques by providing learners with a range of illustrative examples from existing productions. You could give them examples to analyse and annotate, or examples that they could explore digitally by interacting with the examples and experiencing first-hand how they were created.

For learning aim B, learners will need to gain experience of a range of 2D animation tools. These should be introduced, initially, through exemplification and discussion. Tutor-led, whole-class tutorials would be a good way to do this, allowing learners to gain an understanding of the way in which the different types of tool that they will need to use work. Additional online tutorials should also be made available to allow learners to practise using these different tools. You could give them images to manipulate and animate, as well as access to different online tutorials as referenced at the end of this delivery guide.

Once learners are familiar with the software tools, they should be given time to practise using a range of techniques, both basic and advanced. This will allow them to experiment with ideas and designs. It would be helpful to give learners a brief to work to, such as a mini project for a specific sector, which will provide them with a purpose and outcome for their explorations.

For learning aim C, learners will need to create a digital 2D animation for a specific media purpose using industry techniques. They should be guided towards creating digital portfolios in which to record the evidence of their planning and ideas generation. You should also provide some suitable templates or exemplar materials appropriate to the medium on which to record their idea and plan the contents of their productions. You should show learners how to locate and store assets for their work, using appropriate file names and formats. Learners should explain how and why these will be used and what changes will be made to them and why.

Learners should keep detailed notes of all of their activities and make evaluative and critical judgements about the appropriateness of their work. The notes should include their ideas generation, their planning and time management, and their ability to work to a set brief within the required deadlines.

Learners will also need to provide evidence of their working practices. They could record themselves working, or produce a range of step-by-step screen shots that they could annotate to explain what they are doing and why it is relevant to their final product.

Learning aim	Key content areas	Recommended assessment approach
A Examine the purposes and techniques of 2D animation used in the media industry	**A1** Purposes of digital 2D animation **A2** The development of 2D animation techniques **A3** The characteristics of digital 2D animation techniques	A report examining traditional and digital examples of the purposes, techniques and characteristics of 2D animation.
B Explore the use of 2D animation tools and techniques for a specific media product	**B1** Digital 2D animation tools **B2** Digital 2D animation techniques	Two fully developed ideas for a digital 2D animation, demonstrating the use of different tools and techniques and supported by an annotated ideas development portfolio including initial ideas and experimentation.
C Create a digital 2D animation for a specific media purpose using industry techniques	**C1** Planning a digital 2D animation **C2** Producing a digital 2D animation **C3** Evaluating a digital 2D animation	A planning and production log including a schedule, asset management and evaluating the creative and technical choices made throughout. A final 2D animation published for a specific media purpose.

Assessment guidance

Reports into the purposes and techniques of 2D animation can take a range of different formats such as written reports, blogs and vlogs. Allow learners to express themselves in the way that they feel most comfortable. Reports could contain clips, images, links and animations for illustrative purposes, and all sources of materials should be clearly referenced. When exploring and experimenting with animation tools, learners should record evidence such as annotated screen shots within a portfolio. Ideas generation should also be produced within a planning portfolio. Again, this could be in hard copy or electronic format and should detail all ideas from concept to completion and all planning documentation including sketches, drafts and outline plans. Final animations should be exported into a suitable format and be easily accessible at all times (backups should be made). Learners should evaluate their choices and ideas at all times and include evidence of this within their planning and production portfolios. Merit level learners should show sound analytical and evaluative skills and competence in their production work. At distinction standard, learners should be able to demonstrate creativity within their production work, working to near professional standards and justifying their choices and decisions at all times.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 33: 2D Animation

Introduction

When working on this unit, learners will be required to produce a portfolio of evidence for assessment that contains all of their investigations, experimentations, planning, evaluation and production work. They should ensure that they take time to explain and discuss all of their evidence and produce exemplification wherever relevant.

Learning aim A – Examine the purposes and techniques of 2D animation used in the media industry

The examination of the purposes and techniques of 2D animation should be relevant and wide-ranging and underpin the learners' understanding of all of the content of the learning aims.

- Introduce learners to the different purposes of digital 2D animation by providing a range of illustrative examples to analyse and discuss, which could include:
  - entertainment
  - information
  - advertising
  - education.

- Group discussions would be best for this. However, once you are sure that learners have an understanding of the topic they could carry out independent investigations and record their findings in their portfolios.

- In order to understand the development of 2D animation techniques over time, learners should be given a range of examples of professional and semi-professional work produced in the past and the present day. They should be able to gain an insight into the range of techniques identified within the learning aim and see actual working examples of finished products. Timelines could be provided as a starting point for independent research into past practice, and learners should produce either reports or presentations that evidence their understanding – these should be kept in their portfolios.

- When exploring the characteristics of 2D animation techniques, learners should again be given relevant illustrative examples to explore and discuss. They should be able to identify key techniques and how these can be used to create 2D animations. Learners should be able to find evidence of techniques being used within a range of sectors and discuss why and how they are fit for purpose.

- When comparing visual characteristics, learners should be able to identify basic vector shapes, photorealism, flat colour, graduated tones and calligraphic hand drawn appearance. Technical characteristics of digital 2D animations such as frame rate, compression, vector animation, raster (bitmap) animation and animation file formats (including animated gifs, shockwave and flv files and CSS3 for HTML5) should also be explored. However, it will be important for learners to concentrate on the specific software they will be using for their production work and they should record their findings in their portfolios.

- In particular, learners should consider the ways in which their research will inform their own use of 2D animation tools in the next learning aim.

Learning aim B – Explore the use of 2D animation tools and technique for a specific media product

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of the use of 2D animation tools and techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, learners should be able to explore a wide range of 2D animation tools that they will be required to use within their production work. They should have access to appropriate software and focus their explorations on the tools associated with it.

- For initial explorations, learners should be given a range of examples that they could discuss in terms of relevance, suitability, purpose and usage. If possible, you could give learners an online toolkit to enable them to interact with these tools and experiment with using different assets and different software. Learners should record evidence of their explorations within their portfolios. They should include annotated screenshots of themselves working with the tools, discussion of reasons why they have used the tools, and what they have achieved through selecting them.

- You should give tutorials in order to equip learners with the skills and knowledge required to use digital 2D animation techniques. You should illustrate how and when these techniques should be used and allow learners to experiment individually, using some of the online tutorials that are available. Again, all evidence of these explorations must be recorded in their online portfolios.

Learning aim C – Create a digital 2D animation for a specific media purpose using industry techniques

Learning aim C is designed to allow learners to utilise the skills they have gained in the previous learning aims and create an animation for a specific purpose or medium. They should be able to plan effectively and make critical judgements about their work and working practices. The completed animations should be fit for purpose and saved in a suitable format.

- Learners should be able to plan a digital 2D animation using appropriate formats and pre-production paperwork. You should provide them with access to exemplar materials with which to do this. While most documentation should be online, sketchbooks or storyboard templates should be given for original designs and artwork. All learners must include planning evidence within their portfolios that covers:
  - ideas generation, brainstorming, thumbnail sketches
  - analysis of the brief, including target audience and any client, production and technical constraints
  - influence of examples of current or historical 2D animation
  - legal and ethical issues
  - scheduling and production milestones
  - developing narrative
  - developing assets – characters, backgrounds, soundtrack
  - trial animations or animatics.

- To evidence their production processes, learners must show that they have correctly utilised the appropriate software and made use of a range of basic and advanced techniques in the execution of the work. While this may be evidenced to some extent in their final work they should also provide illustrative evidence of their working practices and discuss the skills and techniques used. They should be able to justify their decisions and choices, and show that they have effectively managed

their assets, saving them in appropriate formats and making effective use of them within their work. Learners should also produce work schedules to evidence their time management skills and be able to publish their animation for use in a media product.

● Within their portfolios, learners should make regular reference to their choices and decisions, evidencing the techniques used and justifying their creative decisions in relation to past and current practice. They should evaluate:

o their performance in relation to the requirements of the brief

o how well they have managed to work within and meet the intended purpose

o how effective they have been in producing work for the chosen platform.

● They should be given the opportunity to showcase their work to others and gain relevant and useful feedback. They should make considered judgements relating to the feedback and respond to it effectively.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 30: Page Layout and Design for Digital Media*
- *Unit 29: 2D Digital Graphics*
- *Unit 43: 3D Digital Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

For this unit, learners must have access to:

- digital still cameras
- digital video cameras
- scanners
- digital drawing tablet
- computers
- appropriate drawing, painting and 2D animation software
- the internet
- traditional drawing materials
- light boxes.

Textbooks

- Camara S – *All About Techniques in Drawing for Animation Production* (Barron's Educational Series, 2006) ISBN 9780764159190.
  This is a guide to drawing animations for 2D productions.

- Keller D – *Creating 2D Animation with the Adobe Creative Suite* (Delmar Cengage Learning, 2013) ISBN 9781133693482.
  How to create 2D animation using Adobe software.

- Roberts S – *Character Animation Fundamentals : Developing Skills for 2D and 3D Character Animation* (Focal Press, 2012) ISBN 9780240522272.
  A resource to help learners with 2D and 3D animation techniques.

Websites

- www.digitaltutors.com
  Learn how to make 2D animated characters.

- www.lynda.com
  2D animation tutorials in Flash.

- www.udemy.com
  Online tutorials and core principals and techniques of 2D animation.

Unit 34: Game Engine Scripting

Delivery guidance

Approaching the unit

This unit is about scripting gameplay in either 2D or 3D games, and the emphasis is on learners being able to deliver the gameplay that they have planned. It is fundamentally not about the assets used or the quality of the planned gameplay, although the unit can be combined with others that do cover these considerations.

Learners need to access as many examples of scripting as possible. It is through the study of clear, efficient scripting used to create specific gameplay outcomes that they will develop the best understanding of how scripting works. This study will also provide inspiring practice for them to emulate.

For this unit, learners must have access to:

- a game engine capable of implementing the unit content
- an appropriate code editor (if not available in the engine)
- appropriate library assets (graphics, etc.).

Delivering the learning aims

A major consideration for the entire unit is your choice of game engine. The content has been written so that it can be taught through a wide range of game engines and scripting languages. Inevitably, some of the content is likely to be absent from your target language: it does not matter if your target language does not include a 'goto' statement, for example, so long as you can cover the majority of the content. Nor does it matter whether your code editor is text-based, visual or mixed. However, if there are substantial gaps in the content, your engine may not be appropriate for the unit and you may need to reconsider. Similarly, if your engine does not include a physics engine or library, you will struggle to deliver some of the content.

Learning aim A introduces learners to the core concepts in scripting languages and to the physics used in physics engines and libraries. It will be crucial to study a wide variety of examples of scripting, but this can come from various sources depending on what is available to you: tutorials from books and websites, demo games, published games (if available), or your own scripted examples.

For learning aim B, learners will need to prepare the scripting for a digital game. It is critical that you teach learners how to plan what they intend to make and then deliver this plan in practice. There is no specific workflow required, although planning should be done systematically, and you could teach any method or methods that suit you and your learners. However, you should give learners a variety of short, well-defined practice tasks so that they have clear formative feedback before they set about the assessment.

For learning aim C, learners will need to script a digital game in a game engine. This covers the actual scripting of the game that your learners planned in learning aim B. You may wish to teach this separately, or in tandem with the

content for learning aim A. The latter approach means that you could teach learners about scripting and physics while they are actually creating scripts. This approach also gives you flexibility in the order of assignments: you could assess learning aim A before or after the completion of learning aim C. One advantage of assessing learning aim C first is that learners can draw on their own work when discussing examples for learning aim A.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers, visits to suitable commercial game studios or exhibitions). This will also help learners to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Understand core concepts in game engine scripting	**A1** Core concepts in scripting languages and artificial intelligence **A2** Core concepts in physics for digital games	Spoken or written report.
B Prepare the scripting for a digital game	**B1** Prepare gameplay **B2** Prepare scripting	Gameplay plan. Scripting plan.
C Script a digital game in a game engine	**C1** Script the digital game **C2** Document own work	Final version of the digital game in the authoring game engine. Spoken or written commentary on own scripting.

Assessment guidance

The recommended assessment approach for learning aim A is a report or presentation, but you can use any method or methods that allow learners to independently show their understanding in such a way that it can be subsequently demonstrated to a third party. Presentations should be videoed, for example, or learners should record commentary for the slides. There is a mass of information about scripting available online: you should explicitly warn learners about plagiarism and you will need to be particularly vigilant.

Learning aim B has considerable scope in terms of acceptable assessment evidence and plans may make use of written, spoken and visual elements, as appropriate. Gameplay, in particular, does not require a formal game design document, although you may find it helpful to provide learners with a template or templates to facilitate their planning. What is critical is that learners plan their gameplay thoroughly in advance of making their games, as they will be assessed for learning aim C on how well they manage to deliver this vision. The scripting plan needs to cover key structures, so that it is clear that learners have a framework on which they have based their scripting, but it should not be so detailed that there is nothing to do for learning aim C except transcribe the planning.

The assessment of learning aim C requires care – even the best planning is likely to need revision. In particular, you should not treat the scripting plan too restrictively – learners may well need to make substantial changes in order for things to work or to be efficient and you should not penalise them for this. However, you should take a stricter view of departing from planned gameplay. Some change is inevitable, especially if learners have to cut gameplay features from an overambitious plan, and there needs to be comparable demand between learners, but being able to deliver planned gameplay is at the heart of scripting in a game engine.

You will need to be careful about other aspects of learning aim C. The planned game may not be especially well conceived in terms of genre and audience, but this has no bearing on the assessment – it is how well this idea has been executed that matters. Similarly, the availability or choice of assets is not a consideration, but it is how they have been controlled through the scripting that is important.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 34: Game Engine Scripting

Introduction

You could begin by looking at a range of games or elements of games and the scripting that has produced them. The core purpose of this unit is to produce clean scripts that function well: learners should develop an understanding of what this means from the outset and develop the aspiration to produce something similar of their own. Access to commercial game studios can be difficult to negotiate, but seeing the work of scripters or programmers in a studio, or having someone visit, would be another excellent introduction for learners if the opportunity is available.

Learning aim A – Understand core concepts in game engine scripting

The teaching of this learning aim can be done in tandem with the teaching for learning aim C, or separately. Both approaches require a systematic approach to the content and plenty of examples that learners can explore and discuss.

- You should deliver the content practically. Learners will best understand the structure and function of statements by seeing what they do in practice. Concepts such as data types can seem very abstract unless learners are able to explore the different roles played by the different types.

- You may also want to create your own scripts specifically to teach aspects of the content. For example, you could create gameplay and scripts using both and switch to control an avatar's movement so learners could compare the two.

- Your approach to artificial intelligence (AI) will depend to some extent on the resources available to you. Many engines include some form of pathfinding and navigation solution and you should obviously focus on this if it is available, although you may want to discuss other approaches with learners. Many engines also have some form of solution for controlling AI behaviour, and there are also some third party solutions available, but it is equally valid to look at behaviour control through the creation of scripts from scratch.

- You will also need to teach the content for A2 through the game engine's physics library or engine. Concepts such as mass, density, friction and restitution are often best understood when learners can change the values of these parameters and explore what happens. It may be that your chosen engine does not include aspects of the content – soft-body physics is a likely example. You may find it helpful to look at examples in commercial games for these gaps, as learners are not required to analyse the scripting of the physics, but rather how the physical concepts have been utilised in game. Particle simulations are generally handled by a dedicated system in a game rather than by a physics engine, and you should focus on this when teaching particles.

- In particular, learners should consider the ways in which their research will inform their own scripting for digital games in the next learning aim.

Learning aim B – Prepare the scripting for a digital game

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of game engine scripting that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Preparing to script can be done in a wide variety of ways but still needs to be systematic. You should encourage learners to experiment with techniques to find which is most productive for them, but, at the same time, you should make it clear that the final outcome needs to fully realise their vision for the game.

● You should give learners a preparatory brief for a game so that they can practise techniques before assessment, although there is no requirement for them to respond to a brief for the actual assessment. You will need to guide learners carefully through the constraints under which they are working. The available assets (e.g. graphics) and the features of the engine (2D or 3D) should drive their decision-making, so that they are making the best use of what is available rather than working against it.

● You should teach learners that the next stage to be considered involves general game features such as audience (e.g. the gamer type – hardcore, mid-core, casual – and the demographic) and genre. They also will need to consider the purpose of the game – to entertain, etc. Platform is particularly important here – learners should plan for a platform for which they can realistically be expected to script. If they plan a game for mobile devices, then they need to plan everything for that mobile device including a realistic control system using tilt and/or touch.

● The final stage of preparing gameplay involves the detailed consideration of the objectives, challenges, victory conditions, and so on, in game. You should show learners clear examples of games and their associated planning so that they understand what level of detail is required in order for the game to be completely described. It is important to stress to learners, at this stage, that the plans they make will affect the assessment of learning aim C, so it is particularly important they get it right.

● Teaching the scripting plan needs particular care. Learners need to understand the range of planning methods available (flow diagrams, hierarchy diagrams, lists, mind maps, continuous text or speech) and experiment with them to see what works best. A possible teaching approach is to give learners completed gameplay plans and ask them to complete scripting plans for these games before comparing the success of different methods. This will allow you to give the learners valuable formative feedback.

Learning aim C – Script a digital game in a game engine

If you have not delivered this learning aim in tandem with learning aim A, then it needs to be taught systematically in a similar way.

● You should teach learners how to use the code editor appropriately, whether it is inbuilt, external, text or visual. It is not required that learners have a choice of code editor, but if you want them to make a choice then you will need to carefully show them how to use all the options open to them. It is particularly important that you show learners how to complete the initial set-up (including creation of objects and initialising variables), import assets, lay out their scripts clearly and comment on their work intelligibly, so that you can be sure of crediting their work properly.

● You will need to show learners how to develop gameplay iteratively, by breaking complex behaviours into a range of simpler behaviours that build on each other. For example, a tower defence game might start by getting a tower to follow an enemy, then shoot at an enemy, then only at an enemy in range and then prioritise appropriately between a variety of enemies in range at the same time.

● Properly documenting changes to learners' plans is extremely important, and you will need to show them how to do this. The only way they can show how closely they have followed their original planning is by documenting how and why they have departed from it. A useful approach is to have examples of plans and games, and explanations of why the two do not match up. However, learners can prepare this documentation in any format – written, spoken or visual – that suits them.

- You will need to spend some time looking at debugging – learners will run into trouble with their scripts during functionality testing and need to know how to get themselves out of it. Many engines have some kind of debugger, and you will need to show learners how to use this effectively, probably with examples of games that have errors so they can try to fix things for themselves. However, you will probably also need to show learners how to use debug messages to trace exactly where in the chain of events and actions things have gone wrong.

- You may find that script compilation is problematic for your learners because of factors beyond your control, such as security restrictions on the computers in your centre. Learners should know how to compile their game for their target platform. You should not penalise them if they are unable to do this in practice because of centre restrictions, so long as they explain what the restrictions are and what they would have done had these restrictions not been in place.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 13: Digital Games Production*

- *Unit 32: Concept Art for Computer Games*

- *Unit 40: 3D Modelling*

- *Unit 41: 3D Environments*

- *Unit 42: Games Testing*

- *Unit 43: 3D Digital Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Buckland M – *Programming Game AI by Example* (Wordware Publishing Inc., 2014) ISBN 9781556220784.
  This book describes in detail many of the AI techniques used in modern computer games.

- Dillon R – *HTML5 Game Development from the Ground Up with Construct 2* (A K Peters/CRC Press, 2014) ISBN 9781482216615.
  This book covers how to use the sophisticated yet user-friendly HTML5-based game engine Construct 2 to develop and release polished, two-dimensional games on a multitude of different platforms.

- Elliott JL – *HTML5 Game Development with GameMaker* (Packt Publishing, 2013) ISBN 9781849694100.
  This book looks at building browser-based games and mastering GameMaker language.

- Lundgren F and Pearce R – *CryENGINE Game Programming with C++, C#, and Lua* (Packt Publishing, 2013) ISBN 9781849695909.
  This is a comprehensive guide to CryEngine.

- Sewell B – *Blueprints Visual Scripting for Unreal Engine* (Packt Publishing, 2015) ISBN 9781785286018.
  This book looks at how to use visual scripting to develop gameplay mechanics, UI, visual effects and artificial intelligence.

- Sherif W – *Learning C++ by Creating Games with UE4* (Packt Publishing, 2015) ISBN 9781784396572.
  This provides a good starting point for programming with C++.

- Weinberger J – *Learn Unity Programming with C#* (Apress, 2015)
  ISBN 9781430267522.
  This shows the principles of writing C# code and scripts.

Journals

- *Develop* (New Bay Media Limited)
  This focuses on all aspects of game development including coding.

Websites

Most game engines have substantial documentation, tutorials and forums on their own websites and this is often the most useful place to look for help and resources on specific engines. However, a few suggested websites are provided below.

- http://www.develop-online.net/
  This is the website of the *Develop* journal, which includes a range of tutorials.

- http://www.3dbuzz.com/
  This is a video tutorial site with a range of free and paid for material, covering a variety of engines, languages and platforms.

- http://gamasutra.com/
  Gamasutra, run by UBM TechWeb, focuses on all aspects of game development (including programming), with updates, features and blogs.

Unit 35: Multi-camera Techniques

Delivery guidance

Approaching the unit

This unit gives learners the opportunity to work collaboratively on a large-scale production. Through multi-camera activities, learners' communication and teamwork skills will be thoroughly tested through their final production. Observation records will be an important part of the assessment to provide evidence for each learner's role within this production. One way of approaching the unit is to allow learners to study multi-camera programmes and then they could propose and agree a series of programmes to produce (perhaps a magazine show based at your centre). This could take the form of a weekly episode over four to six weeks. This would allow learners to work within a range of roles and you should ensure that each learner undertakes a key role (director, vision mixer, production assistant, floor manager) at least once. Sometimes learners will opt to be the presenter of or an actor in a TV show during production and, in a series run, it is usual to keep the same talent in camera-facing roles. Where possible, it is recommended that these roles are given to those outside the cohort for this unit assessment (perhaps an associated Performing Arts programme), as presenting all through the series may limit a learner's capacity to demonstrate their ability to undertake technical roles.

For learning aim A, it would be beneficial for the group to attend a visit to a multi-camera broadcasting facility. Most BBC regional TV centres (Mailbox Birmingham, Salford, New Broadcasting House in Manchester, BBC Bristol etc.) offer educational tours and many TV shows offer free group bookings for live TV audiences for the recording of shows.

Delivering the learning aims

For learning aim A, learners will need to understand different types of multi-camera production and the role of the crew. For this learning aim, it would be beneficial for learners to be exposed to a professional TV studio facility (visits can easily be arranged, particularly where live studio audiences are required for productions).

When learners analyse the purposes and formats of multi-camera productions, it is important that they are given a range of different types of programmes to look at. Live recordings of events (such as music festivals or sport), panel or quiz shows, TV news or magazine programmes, situation comedies (where they are produced in a multi-camera studio) and soap operas could be shown to the class. In order to support the evidence for this topic, learners may create studio layouts to identify where the cameras have been positioned to record the programme. Learners could also break the programmes into their component parts, listing what elements are used throughout programmes (videotape (VT) inserts, titles, audio stings, live music, outside broadcast, remote link-ups etc.).

For A2, learners will need to perform research on the responsibilities and interrelationships between the different roles within a multi-camera production team. Learners could give case studies of professionals working in the industry, and discuss the communication channels in a production. Again, visiting a

professional TV studio or having a guest speaker visit the group would support this section of the unit.

For learning aim B, learners will need to prepare material for a multi-camera programme in a recognisable genre and format. This learning aim is centred on the learners' ability to create material that will allow them to make their multi-camera production. In B1, learners will need to use their understanding of the components of a multi-camera production to assign responsibility to team members for creating these elements. Before this process begins, there needs to be an agreed brief for the production that identifies the format and genre. During this stage, a learner might be given the task to create a title sequence that will be used in each episode of a production, or be given the role of writing presenter scripts. Where learners create a multi-episode series of a studio-based production, it may be an efficient approach to have learners create sets of regular features that can be used as VT inserts (such as short vox pop VT packages or games reviews being produced for a student magazine show).

B2 will result in learners creating a production folder for their programme that includes the necessary paperwork to ensure the smooth running of the show. This could include studio layouts, camera scripts, production schedules, timings and running orders. Typically, learners will work on a multi-camera production in a large group and therefore there is a danger that learners may submit a folder full of 'group work'. In order to combat this, a tutor could assign learners different aspects of the production folder to complete or assign different episodes for small groups of learners to production manage. For example, a learner may have generically produced series paperwork (including the studio floor plan) but might have individually produced paperwork for episode 4, such as the running order, script, camera script, timings, etc.

Observation records would be a useful addition here to support the tutor in their assessment of the professional and organised way in which the learners operate at this stage of the project.

For learning aim C, each learner should carry out a key role in the production of a multi-camera programme in a recognisable genre and format. Within this learning aim, learners need to demonstrate evidence of carrying out significant roles within a multi-camera production, and management of the associated production processes. In order to support their evidence for this, it would be advisable for learners to record their activities in a weekly web log or production diary. In addition, learners should record the activities that have helped manage the disparate elements of production such as rehearsals and team meetings etc. Tutor observation records will support evidence for this element in addition to the evidence generated by the learner.

The assessor will need to review the final production as well as be able to define the performance of each learner in their respective roles. Observation records of each learner in their role would support assessment, and learners should provide a reflective account of their own performance on the project, including whether they performed to expectations and whether the programme met its original intentions or not. In order to provide evidence for this final aspect it would be useful if the learners are working towards a defined brief that specifies the genre, purpose, audience and format of the programme.

Learning aim	Key content areas	Recommended assessment approach
A Understand different types of multi-camera production and the role of the crew	**A1** Purposes and formats of multi-camera productions, conventional approaches to live recording **A2** Roles and responsibilities involved in multi-camera production	Analysis of a range of media texts and their use of multi-camera production in different formats. Research folder explaining the individual roles and responsibilities involved in multi-camera production.
B Prepare material for a multi-camera programme in a recognisable genre and format	**B1** Creating material for multi-camera production **B2** Logistical planning for studio- or location-based multi-camera production	Production folder for the planning of a multi-camera production. Pre-production folder including logistical and practical considerations.
C Carry out a key role in the production of a multi-camera programme in a recognisable genre and format	**C1** Management of the production process and periodic review **C2** Production tasks and self-evaluation	Practical multi-camera production project encompassing management and review of production. Observation of learners carrying out a given production task towards a multi-camera production.

Assessment guidance

In order to provide evidence for learning aims B and C, it is necessary for the assessor to compare the learners' preparatory material and production work to the specifications in a defined brief. Even though the formulation of a proposal is not strictly required in the assessment of this unit, a defined brief would facilitate the assessment for these sections of the unit. It is important that the project is set up in a way that enables each learner to undertake a significant role in the production. In order to achieve this, it may be necessary for learners to create an episodic series of multi-camera productions with the major roles being rotated each week.

A multi-camera studio or outside broadcast facility will be required to deliver this unit. This can be achieved through linking three or four cameras used elsewhere in the programme to a vision-mixing unit. Talkback systems are also desirable to enable learners on the production side of the programme to communicate appropriately to each other within their defined roles. As with many practical units, observation records of learners' activities are invaluable in supporting assessment, particularly for learning aims B and C. In order to obtain merit and distinction standards for this part of the unit, learners need to be observed taking an active and organised approach to the management of their part of the multi-camera production. Their approach should enhance the overall quality of the production. For example, a vision mixer should work accurately so that the final show is seamless (and without pauses or cuts to the wrong source throughout the show) or a director should deliver a lively style to a magazine show. It is quite possible that individual learners may excel in their role but be part of a wider production that is not altogether successful. Learners like this can still receive higher grades if there is evidence that they performed their role in a highly organised and effective manner. Observation records and each learner's own working production documents would be required as evidence to differentiate learner performance in this way.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 35: Multi-camera Techniques

Introduction

It can be a significant commitment to take on the running of a series of multi-camera productions with a group of learners. However, this will provide the most secure opportunity to enable every learner to provide evidence of undertaking a significant role in a multi-camera production. Learners must be rotated around the significant roles (director, PA, vision mixer, floor manager) when producing their series to ensure equality of opportunity. Collection of observations (both peer and assessor observations) would be useful to support the evidence for assessment.

Learning aim A – Understand different types of multi-camera production and the role of the crew

This learning aim offers an excellent opportunity to engage in visits to professional television studios. Many regional facilities offer tours and are pleased to invite groups of people in to become live studio audiences for recordings. Visits give learners an excellent insight into the workings of a TV studio as well as the interrelationships between the roles involved in the production of multi-camera programmes.

You should organise a workshop in which learners can review a range of multi-camera productions and are walked through the process of identifying the components and purposes of production, studio layouts formats, roles required etc.

- Following this, learners should be given the task of applying this analysis to two different multi-camera productions and then presenting their findings (perhaps in seminar groups) to their peers. Learners could then refine these into written reports on the two productions.

- Using experience gained through visits, learners could then prepare an overview of each role within the multi-camera production team, explaining their interrelationships and main areas of responsibility. Individual case studies of media professionals could augment this work and provide further evidence of their understanding.

- In particular, learners should consider the ways in which their research will inform their own multi-camera productions in the next learning aim.

Learning aim B – Prepare material for a multi-camera programme in a recognisable genre and format

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of multi-camera techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

In this learning aim, learners will work collaboratively or individually to produce material to use within a multi-camera production. It is important that work is produced that is identifiable as being the product of each learner, and you should manage the division of tasks among the group carefully to ensure that all learners have an equal opportunity to provide evidence for this. In this guide, we will use the example of a cohort of learners creating a college-based magazine show aimed at their fellow student population that can be viewed online through the intranet.

- Make reference to a proposal or statement of intent. While the quality of the learner's proposal to produce a multi-camera production is not itself an assessed component of this unit, the fitness for purpose of their prepared material for the production is. This means that learners should provide a short explanation of what they are producing towards the multi-camera production and why this fits the genre and format of the programme. This can be captured through discussion (although this needs to be evidenced) or as an opening section to each learner's planning documentation folder.

- Learners need to show evidence of their having produced items for a production such as VT inserts or regular features that feature in every episode of the show. When creating a magazine show, it is more efficient for crews to create a series of VT inserts for the run of productions in one or two recording sessions. For example, if a subgroup of learners had an interest in computer games, they could produce six video game reviews with a presenter in which they discuss popular titles (edited with clips from gameplay footage with voice over), one for each episode of the magazine programme, as a regular feature. This process could be replicated with other regular features as VT inserts such as:

  o vox pops (vox populi – asking members of the public about a topic)

  o an interview with a support area of the learning centre (a different person being interviewed each week)

  o an instructional video

  o titles and end credits

  o a music video (perhaps taken from the work done for a separate project or different year group)

  o trailers for fiction films (edited by learners to fit a time constraint for this show and to be followed by a live interview with the producers).

- In groups, learners may be given the responsibility of organising live guests, scripts and VT inserts for the entire series and they should prepare a folder of supporting evidence to supplement this process.

- In addition, learners should prepare a production folder for the episode in which they play a significant role (see above). In the folder, learners should include:

  o scripts

  o cue sheets

  o call sheets

  o schedules

  o running orders

  o studio layouts

  o risk assessments.

Learning aim C – Carry out a key role in the production of a multi-camera programme in a recognisable genre and format

In this learning aim, learners carry out a significant role (production assistant, director, vision mixer or floor manager) within a multi-camera production. If there is a series of six episodes of the production, this allows for 24 learners to each be given a significant role and you will need to manage it so that every learner has an opportunity to provide evidence of their doing this.

- Learners will need to rehearse and organise the live recording of the magazine show over a series of sessions and learn how to operate in their role and adhere to

the etiquette of communication within a studio set-up during recording. There is an opportunity for peer teaching here: for example, the production assistant from episode 1 can talk through the process with the PA for episode 2.

● Observation records of this process are a significant source of evidence for this learning aim and it is important that you observe each of the main contributors to an episode for each recording of the programme.

● Learners need to supply evidence of their working documents (annotated production paperwork) used during production.

The final production should be recorded and made available as evidence.

● Ensure that learners review their productions. Each learner should review it in terms of the overall quality of the show and discuss whether it fulfilled its original intentions. They should also consider their own individual performance in the production roles.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

There are a number of ways in which this unit links with other units around moving image production. Depending on the decision made about the group's multi-camera production, there may be room to include sections of video work produced in other units such as *Unit 10: Film Production, Unit 15: Advertising Production* etc. Learners will use skills in pre-production, scriptwriting, editing, lighting and visual effects.

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 4: Pre-production Portfolio*

- *Unit 10: Film Production (Fiction)*

- *Unit 15: Advertising Production*

- *Unit 16: Factual Production*

- *Unit 18: Storyboarding for Digital Media*

- *Unit 19: Scriptwriting*

- *Unit 20: Single Camera Techniques*

- *Unit 21: Film Editing*

- *Unit 36: Lighting Techniques*

- *Unit 37: Visual Effects*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Kindem G and Musburger R – *Introduction to Media Production, 4th edition* (Focal Press, 2009) ISBN 9780240810829.
  This is a text book that covers all media sectors and the requirements of producers.

- Stradling L – *Production Management for TV and Film (Professional Media Practice)* (Methuen Drama, 2010) ISBN 9781408121801.
  This book gives a comprehensive account of the tasks associated with managing a range of TV and film projects.

Websites

- www.bbc.co.uk/dna/filmnetwork/Filmmakingguide
  BBC information about film-making.

- www.bectu.co.uk
  The BECTU Broadcasters Union website gives information about roles in the media industries.

- www.celtx.com
  This website provides free pre-production software.

- www.primary-film-focus.co.uk/filmpreproduction.html
  This site gives information about film production techniques.

- http://www.theguardian.com/tv-and-radio/interactive/2013/sep/25/reader-tv-pitch/review
  The Guardian gives examples of film pitches and proposals.

Unit 36: Lighting Techniques

Delivery guidance

Approaching the unit

This unit focuses learners on the use of additional lights when creating digital media products to create an effect for the audience, facilitate clarity, create symbolism or simply to improve the look of a film. Learners will undergo technical training on the use of specialist techniques and equipment. They will then work towards attaining a working understanding of how lighting works in media products, how to plan lighting set-ups and how to safely deploy lighting equipment.

Learners would benefit from being allowed to experiment fully with equipment for this unit and therefore they should be shown how to use the equipment correctly and safely early on in the process. In order to succeed in this unit, learners should acquire the skills necessary to set up lighting equipment to achieve an expected desired effect on screen. This level of skill is usually the result of extended practice and experimentation.

Once learners have become experienced in using lighting equipment it would be beneficial to then apply this knowledge to a project that is being undertaken in a different unit, for example *Unit 10: Film Production (Fiction).*

Delivering the learning aims

For learning aim A, learners will gain an understanding of how lighting creates meaning in media production by analysing the uses and purposes of lighting techniques and technology in existing media products. Here learners should look at a range of media texts that use lighting in different ways to create different effects (such as an advertisement, a feature film, a music video, a factual or studio-based production) and be able to show their understanding of how techniques are used to enhance the product and convey meaning to the audience.

Learners need to be given the opportunity to explore how lighting is used in these productions and they should become conversant with the correct terminology (regarding type of light, positioning of light sources, effects produced etc.) and understand how these techniques are used to convey meaning in a scene (for example, how three-point lighting is used in an interview setting to make the contributor appear three-dimensional and natural or how hard light creates contrast and shadows on a character's face in a horror film). The learners should be able to understand typical set-ups that are used often in media productions (a three-point lighting set-up, for example).

For learning aim B, learners will investigate the technology and lighting techniques used in the industry. Learners will need to build an understanding of the different tools available when creating lighting set-ups for media products. One way of approaching this would be for them to build a logbook of their use of a range of equipment to demonstrate their understanding of how it is used and what effect it has on the final shot.

Learners can produce instructional material or weblogs explaining how typical lighting equipment is used. This could be supported by video footage of shots with lights added in and taken out. For example, a shot could demonstrate the difference to the softness of light that adding diffuser to a lamp has. The learner could provide some commentary on when this technique might typically be used.

Learners could provide an operational guide for the safe set-up and use of lighting equipment and explain the components of a lighting kit (e.g. red head lamps, bulbs, diffuser, barn doors, gels, stands, reflectors, circuit breakers etc.).

Experimentation with the use of different set-ups could be filmed with voice over explaining which equipment had been used and where to create an effect.

For learning aim C, learners will need to set up lighting equipment safely for a range of purposes. In this learning aim, learners should be observed planning and setting up lighting equipment to an agreed brief to achieve a desired effect. As a starting point, it would be helpful for assessment if the learners have a clear idea of the kinds of production they will be working on and how they intend to light them. This gives an opportunity to link this unit with other production units that learners are undertaking. Projects that are being produced for alternative units could provide a clear purpose for the practical lighting work that learners need to carry out. Where learners are working on productions in groups, these should be organised so that each member of the team has responsibility for the lighting set-up of a different scene or location to enable each learner to have the same opportunity to generate evidence for this learning aim.

Once the productions have been agreed, the learners need to provide evidence of their planning documentation for the use of lighting in the media productions. This should include risk assessments to demonstrate that they have the ability to approach this work safely as well as other supporting documentation such as floor plans and booking sheets for equipment.

Learning aim	Key content areas	Recommended assessment approach
A Understand how lighting creates meaning in media production	**A1** The use of lighting techniques to create meaning in media products **A2** The relationship between lighting and genre	A report (or recorded voice over edited clips), analysing a range of media texts and their use of lighting. A presentation identifying different uses of lighting.
B Investigate the technology and lighting techniques used in the industry	**B1** Different types of lighting equipment and their purposes **B2** Examine commonly used lighting set-ups	A workbook recording different procedures for the set-up of lighting equipment. Practical work and observation records of learners' workshop practice. A log of skills development. Test images/test footage of different lighting set-ups.
C Set up lighting equipment safely for a range of purposes	**C1** Requirements of different media products **C2** Planning lighting scenes, selecting and deploying equipment **C3** The safe use of lighting equipment	A practical project encompassing lighting set-ups for three distinct media products. Working documentation to include risk assessments and planning documentation.

Assessment guidance

Evidence for learning aim A could be in the form of a series of reports on the existing use of lighting set-ups in media productions. One way that learners may be engaged is for them to record a voice over to be dubbed onto existing music videos and films in which they describe how they think lighting was used to create an effect. Learners could be observed holding seminars or presentations in which they play clips to their peers, pausing at points to describe how lighting equipment has been combined to create a particular effect on screen.

For learning aim B, the learners should provide evidence of their experimentation with lighting equipment. Learners should be allowed to experiment with different lighting set-ups and perhaps should be encouraged to record footage in which they explain how they are affecting the shot through the use of the different components. They may be recorded saying, for example: 'This is the shot of the actor with a reflector being used as a fill on the right-hand side of their face. The reflector diffuses the light, making it soft and reflects the light from the key light reducing the unnatural shadows on this side of their face.' This evidence could also be presented as a blog with stills of the different lighting states, supported by commentary. Learners could be set a task of producing a handout that explains to others how to set up a light and use gels, diffusers, reflectors and other components safely through combining photographs of the process with text.

Leaning aim C requires learners to apply their understanding of lighting techniques to a range of situations. They should be able to demonstrate that they have used equipment to create an expected result for a pre-defined purpose. Where learners create video productions in groups, it might be useful to organise the production into different scenes with individual learners having the responsibility to design, plan and execute the lighting for each.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 36: Lighting Techniques

Introduction

In this unit, tutors will need to be able to give learners a significant amount of time to get used to the use of lighting equipment. Often, learners find the use of lighting equipment intimidating at first and they may require encouragement and support to fully engage in this activity. One way of building learners' confidence might be for the tutor to demonstrate the setting up of lights in front of the learners first and then allow the learners to practise setting up the equipment themselves in a workshop session, with tutor assistance. In addition, if there are opportunities for learners to attend visits to the sets of professional productions or photographic shoots, this can provide a valuable learning experience on the importance of lights in media production.

Learning aim A – Understand how lighting creates meaning in media production

Within this learning aim, learners will acquire knowledge and understanding through investigations into a range of existing products and also demonstrate their understanding of the different aspects of lighting techniques and equipment.

- Learners need to investigate how lighting equipment is used and to what effect within a range of productions. Learners could provide an in-depth analysis into the use of lighting in a range of music videos and relate the techniques used to:
  - o   the use of hard or soft light to portray the artistes
  - o   the use of colour to convey mood
  - o   create motion effects through strobing.

- Learners could provide a written micro-analysis of a scene, a presentation on the use of lighting techniques in a product or a voice over, edited onto paused video clips to demonstrate how different set-ups have been used. They should address the functional and/or artistic purposes of the lighting.

- For A2 learners can create a 'look book' that shows how they have looked at a range of different genres of production and the typical lighting styles used for each. This should include:
  - o   typical colour schemes
  - o   how genres portray performers (naturalism, chiaroscuro, Rembrandt effect, soft light etc.).

- In particular, learners should consider the ways in which their research will inform their own use of lighting techniques in the next learning aim.

Learning aim B – Investigate the technology and lighting techniques used in the industry

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of lighting techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

- You should open with a session or presentation that takes the learners through the different types of lighting equipment and their purposes.

- Learners should then create an operational manual to demonstrate how to safely set up a light with diffuser and gel, using either video with voice over or images and text. The manual could demonstrate common mistakes (for example, how to ensure that the stand is properly set up and that the light is securely attached) and the correct approaches. The manual could also include imagery of the different components of a lighting kit and an explanation (through images) of the effect this has on the final shot (e.g. a shot of an actor being lit with and without diffuser or with and without a back light).

- Learners could also experiment and record footage of themselves creating different looks using lighting. This should include:

  o three-point lighting set-up

  o different colour schemes

  o different lighting temperatures

  o high contrast lighting to create dramatic effects

  o different ways of modelling light with actors/ performers.

Learning aim C – Set up lighting equipment safely for a range of purposes

For this learning aim, learners should set out their intentions for their projects, that is, what they are planning to light (for example, a music video or horror film).

- Learners should then provide evidence of their planning and management of lighting in three situations. This should be organised so that each learner has the chance to set up lighting for contrasting situations (for a scene from a drama and then for an interview in a factual product, for example). For each project, learners should provide:

  o a proposal or brief for the lighting set-up

  o floor plans and location details

  o equipment booking forms

  o risk assessments

  o lighting plans (detailing positioning of performers, lights, gels, camera etc.)

  o filmed footage for the product lit by the learner.

- Observation records of the learners safely deploying lighting equipment would support assessment of this learning aim.

- In order to deliver this programme efficiently, it may be beneficial to ensure that learners are engaged in lighting productions for other units (see links to other units below).

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

The production units below offer a wide range of opportunities for learners to apply the knowledge and skills developed in learning aims A and B to their production work in learning aim C. Learners should provide lighting plans and set-ups for three productions and ideally the projects should be different (e.g. lighting for a naturalistic scene in an advertisement and then a highly stylised film noir pastiche in film production). Where learners approach productions in groups, responsibility for lighting individual scenes can be given to each student in the production team.

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 4: Pre-production Portfolio*

- *Unit 10: Film Production (Fiction)*

- *Unit 15: Advertising Production*

- *Unit 16: Factual Production*

- *Unit 18: Storyboarding for Digital Media*

- *Unit 19: Scriptwriting*

- *Unit 20: Single Camera Techniques*

- *Unit 21: Film Editing*

- *Unit 35: Multi-camera Techniques*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Emery J – *Lighting Design for Commercial Portrait Photography* (Amherst Media, 2015) ISBN 9781608958955.
  A specialist resource that covers the use of lighting of models and performers within studio portraiture.

- Kindem G – *Introduction to Media Production*, *4th edition* (Focal Press, 2009) ISBN 9780240810829.
  This is a textbook that covers all media sectors and the requirements of producers.

- Lowell R – *Matters of Light & Depth: Creating Memorable Images for Video, Film, & Stills through Lighting* (Lowell Light Mfg. Co, 1999) ISBN 9781879174030.
  This is a guide to different lighting techniques for film and video makers.

- Malkiewicz K – *Film Lighting: Talks with Hollywood's Cinematographers and Gaffer* (Touchstone, 2012) ISBN 9781439169063.
  A guide to lighting as used in cinema.

- Stradling L – *Production Management for TV and Film* (Methuen Drama, 2010) ISBN 9781408121801.
  This book gives a comprehensive account of the tasks associated with managing a range of TV and film projects.

Websites

- www.bbc.co.uk/dna/filmnetwork/Filmmakingguide
  This site has information about film making from the BBC.

- www.bectu.co.uk
  The BECTU Broadcasters Union website provides information about roles in the media industries.

- www.celtx.com
  This site provides free pre-production software.

- www.primary-film-focus.co.uk/filmpreproduction.html
  This site gives information about film production techniques.

Unit 37: Visual Effects

Delivery guidance

Learners will gain an understanding of and explore the uses of visual effects in video or animation content for a number of media purposes. They should understand how visual effects are used in titles, trailers, intro sequences, idents, promotional videos, music videos, gaming cut scenes and special effects sequences in TV and film.

Learners should be able to understand and utilise a range of different techniques and uses of visual effects in different productions for a range of sectors and media. They should develop the skills required to use visual effects tools and create visual effects sequences for use in at least two media products.

All learners should create a digital portfolio of work that contains all of their explorations, planning and production work. A digital format would probably be the best means for doing this. Their portfolios can be used to highlight their skills and progress when applying for employment or higher education.

Approaching the unit

This unit is intended to provide learners with an introduction to a range of visual effects techniques and allow them to develop skills in using effects tools and production techniques. They should be able to explore the work of past professionals working in the field and this could be through their own explorations and tutor-generated materials.

Learners should have access to relevant hardware and software as outlined within the specification and delivery guide. The software used should allow learners to develop beyond the more basic skills and usage of tools and techniques.

Delivering the learning aims

For learning aim A, learners will need to examine the approaches to, and purposes of, visual effects used in the media industry. You should introduce learners to a range of past professional practice in the creation of visual effects for media productions. Look at the development of visual effects over time, from its roots in audio-visual production to its current uses in a range of media products. Learners should explore how visual effects used to be made and compare this to modern practices. The work of Saul Bass and Maurice Binder should be included in this, and you should give learners examples of their work to investigate and analyse.

You should also give learners examples of visual effects used in a range of media and ask them to identify where and how the effects have been used, and to what effect. Learners should be able to identify the target audience for the products being analysed and how the effects have been used to enhance the production and appeal to them.

For learning aim B, learners will need to develop the use of visual effects tools and techniques for a specific media product. Visual effects tools should be introduced, initially, through exemplification and discussion. Tutor-led, whole-class tutorials would be a good way to so this, allowing learners to gain an

understanding of the different types of tools they will need to use and how they work. Additional online tutorials should also be provided to allow learners to practice using different tools. You could give learners images to manipulate and animate, as well as access to different online tutorials as provided within this delivery guide.

Once learners are familiar with the software tools, they should be given time to practise using a range of techniques, both basic and advanced, as this will allow them to experiment with ideas and effects. It would be helpful to give learners a brief to work to, such as a mini project for a specific sector, which will provide them with a purpose and outcome for their explorations.

Learners should be guided towards creating digital portfolios in which to record the evidence of their planning and ideas generation. You should give them a client brief and suitable templates or exemplar materials appropriate to the medium on which to record their ideas and plan the contents of their productions. Storyboard templates should be provided in digital or hard copy to allow learners to work in a format that they are most comfortable with.

Learners should be able to analyse and interpret the brief so as to ascertain the target audience for the product within which they will be placing their effects, and identify any technical constraints. You should introduce learners to appropriate legislation and ethical constraints that may affect their productions. They should also be able to effectively manage their time through the use of schedules that will allow them to plan and meet their deadlines.

For learning aim C, learners will need to create a composited visual effects sequence for a specific media purpose using industry techniques. When undertaking production activities, learners should keep detailed notes of all of their decision-making processes and evidence their working practices. They could record themselves working on the editing equipment, or even produce a range of step-by-step screen shots that they could annotate, explaining what they are doing and why it is relevant to their completed product. Learners should provide evidence of how they exported their work into an appropriate format for use on a specific media platform.

Learning aim	Key content areas	Recommended assessment approach
A Examine the approaches to, and purposes of, visual effects used in the media industry	**A1** Approaches to visual effects **A2** Purposes of visual effects	A report, presentation or video which evaluates specific examples of the approaches to visual effects used for specific purposes in the media industry.
B Develop the use of visual effects tools and techniques for a specific media product	**B1** Visual effects tools and techniques **B2** Generating ideas for a composited visual effects sequence	Two fully developed ideas for a visual effects sequence demonstrating the use of different tools and techniques. Supported by an annotated ideas development portfolio including initial ideas and experimentation.
C Create a composited visual effects sequence for a specific media purpose using industry techniques	**C1** Producing a composited visual effects sequence	A planning and production log for a composited visual effects sequence including a schedule, asset management and evaluating the creative and technical choices made throughout. A final composited visual effects sequence for a specific media purpose.

Assessment guidance

Approaches and purposes of visual effects should be covered within appropriate written reports, blogs or presentations. Learners should include references to relevant examples from a range of sectors and include annotated images to provide exemplification. Learners should produce all planning and production work within a suitable portfolio that can be updated and added to over time. There should be evidence of their experimentation and interaction with visual effects tools, their ideas generation and their planning materials. Links should be provided to all source materials and the final production work should be for a specific media purpose and presented in a suitable format.

Merit level learners should show that they are able to conduct appropriate analysis at all times. They should provide evidence of imagination within their practical work and the ability to use visual tools and techniques competently to create a visual effects sequence.

Distinction level learners will make well-considered, evaluative judgements in all aspects of their work. Their practical work will be creative and accomplished in all aspects from design to completion, showing clear and careful development of ideas and high levels of technical competence.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 37: Visual Effects
Introduction
Learners will be required to undertake a range of investigations that should be evidenced within their portfolios. The evidence should be generated over time and added to as they undertake more activities. All appropriate planning materials should also be included, as should references to all source materials. Final productions should be exported and saved in an appropriate format.
Learning aim A – Examine the approaches to, and purposes of, visual effects used in the media industry
The examination of the approaches to and purposes of visual effects should be relevant and wide ranging, and should include the origins of the discipline and the changes over time that have informed current practice. ● When studying approaches to visual effects learners should look at the development of motion graphics over time and they should study and analyse the work of Saul Bass and Maurice Binder. Introduce relevant examples of their work to the learners. You should also give learners access to timelines and illustrate to them how visual effects have been used and have changed over time. Group discussions and analysis of the following areas should be included and learners should reference explorations of the following within their portfolios: o motion tracking o motion capture o colour manipulation including changing or leaving specific colours o animated 'special' effects o compositing • with live action footage • with animated footage • with background mattes. ● Investigations into the purposes of visual effects should include examples and analysis of all of the following: o title sequences o special effects sequences in TV and film o trailers o idents o advertisements o music videos. ● You should give learners a range of examples and they should also conduct individual research and investigations into visual effects that they find engaging and that are relevant to a range of media. Learners should evidence their explorations within their portfolios and include relevant images and annotations. ● In particular, learners should consider the ways in which their research will inform their own uses of visual effects in the next learning aim.

Learning aim B – Develop the use of visual effects tools and techniques for a specific media purpose

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of visual effects tools and techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

For this learning aim, learners should develop their understanding of and skills in using visual effects tools and techniques. They should explore and experiment with these prior to undertaking any production activities and they should clearly plan their productions with consideration of relevant legislation and constraints.

- Exploring and experimenting with visual effects tools and techniques will be extremely engaging for learners and they should be allowed to gain as much 'hands-on' experience as possible. You should give them initial guidance and information on how to utilise these through tutor-led tutorials and demonstrations. You should also ensure that they can access online tutorials using the software in which they will be working so that they are familiar with it and competent in its use. They could further explore the tools and techniques through adding effects to either sourced or tutor-generated footage and in line with a set brief. Their work should cover all of the tools and techniques outlined within the learning aim and this should be evidenced within their portfolio, through annotated screen shots, photographs or audio-visual footage of them executing set tasks.

- When generating ideas for a composited visual effects sequence, learners should provide evidence of creativity in their ideas generation, brainstorming and thumbnail sketches. They must also produce a storyboard from which to work and you should give them appropriate online or hard copy templates and exemplars. You should teach them how to break down the client brief in order to ascertain their requirements. Make sure that they are able to interpret the purpose of the visual effects inclusion within the footage as well as the intended target audience. This could be done through a tutor-led activity that allows you to highlight the importance of each section of the brief and how to interpret it.

- Give learners information and access to relevant legislation that may affect their productions. Discuss with them the possible implications of breaking the law or failing to act in an ethical manner. Learners should understand the difference between legal and ethical constraints and the importance attached to each.

- Time management, scheduling and production milestones are an important part of the planning process and you need to show learners how to produce workable schedules that will allow them to manage their time effectively and meet their deadlines. They should ensure that they allow sufficient time to complete all of their production tasks and editing. You could give them templates and exemplars in which to do this, but make sure that the templates are not too leading and allow for learner autonomy within their planning.

Learning aim C – Create a composited visual effects sequence for a specific media purpose

Learning aim C is designed to allow learners to utilise the skills they have gained in the previous learning aims in order to add visual effects to a production. They should be able to use tools and techniques effectively and their completed productions should be fit for purpose, in line with the requirements of the client brief, and saved in a suitable format.

- To evidence their production processes, learners must show that they have correctly utilised the appropriate software and made use of a range of basic and advanced techniques in the execution of the work. While this may be evidenced to some extent in their final work they should also provide illustrative evidence of their working practices and discuss the skills and techniques used. They should be able to justify their decisions and choices and show that they have effectively managed the production process.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 32: Concept Art for Computer Games*

- *Unit 40: 3D Modelling*

- *Unit 43: 3D Digital Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

For this unit, learners must have access to:

- digital still cameras

- digital video cameras

- scanners

- digital drawing tablet

- computers and appropriate drawing, painting and visual effects software

- the internet

- traditional drawing materials.

Textbooks

- Gress J – [Digital] *Visual Effects and Compositing* (New Riders, 2014) ISBN 9780321984388.
  This book is packed with various examples and explanations of tools for creating visual effects.

- Lanier L – *Creating Visual Effects in Maya: Fire, Water, Debris, and Destruction* (Focal Press, 2014) ISBN 9780415834186.
  This is a guide to using Maya to produce a range of software-specific visual effects.

- Grage P and Ross S – *Inside VFX: An Insider's View Into The Visual Effects And Film Business, 2nd edition* (CreateSpace Independent Publishing Platform, 2014) ISBN 9781503349247.
  This book contains an insight into the history and growth of visual effects in Hollywood and beyond.

Websites

- www.designrfix.com
  This website provides design and visual effects online tutorials.

- www.smashingmagazine.com
  This is a website that provides updated advice on the best online VFX tutorials.

Unit 38: Sound Mixing

Delivery guidance

Delivery of this unit falls naturally into two areas: live mixing and pre-recorded, pre-edited sound mixing. Learners can utilise this unit as a follow-on to sound recording and sound editing, to carry the processing of sound to its logical conclusion.

The first part of this unit is about mixing live material, which will require some of the skills associated with sound recording, in order to complete it. The second part will require pre-recorded and, where appropriate, edited sound recordings, that have probably been recorded and edited in the previously named units. There is not sufficient time allowed in the unit for learners to record and/or edit sound.

You will need to give learners sufficient guidance to enable them to complete a mixdown of their own live and pre-recorded material. It may be expedient to provide learners with pre-recorded, pre-edited material for mixing demonstrations.

Approaching the unit

Treat the unit as two separate sections. It is probably easier to start with pre-recorded sound mixing and move on to live sound mixing. With pre-recorded sound mixing the original material does not need to be re-voiced while the learner gets to grips with the equipment and techniques. It is of course necessary to mix both live and pre-recorded sound to fulfil the unit learning aims. This unit is not a live music mixing unit, with the intention of producing a recorded song or instrumental piece. Such outcomes are dealt with in the music qualifications.

The essential skill of mixing technique, is to obtain a balance between the different signals, such that all are heard at the relative levels required for the soundtrack being produced. This can be for a television programme, a film, radio show, website, or even a computer game. One technique often learned very early in a media career is that, if a sound in the mix is not loud enough, you should not try to lift it above everything else, but pull back on all levels until what you want can be heard. To do the former is to overpower the mix and ultimately run out of headroom (the slack in the system that means you will not over-record the system and cause clipping). The emphasis is on clarity not loudness, and this is produced by spacing your sounds across the soundstage so that they do not sit on top of each other in the middle and block each other out, like a pile of papers on a desk.

Delivering the learning aims

Learning aim A is about being able to articulate the principles of mixing live and pre-recorded sound. This means using the language of the recording studio in the context of whatever media industry is being addressed. As previously stated, you should deal first with pre-recorded sound. The learner should be made aware of the type of sound file that is suitable for mixing, these being WAV and AIFF file types, both of which are compatible with most mixing equipment. Sound mixing, whether live or pre-recorded, is about taking a range of sounds and positioning them on a 'soundstage'. The soundstage is the space between the left and right loudspeakers in a standard stereo set-up (or the space in the head between the left and right headphone speakers). Sound mixing is often

undertaken in two different ways – one way for each listening environment. In a stereo loudspeaker set-up, each ear is hearing sound from both loudspeakers, whereas with headphones each ear has its own dedicated sound. Recording techniques are available that will allow for this difference of the hearing environment, for example the binaural head microphone placement system is an attempt to reproduce exactly what is heard by each ear.

Stereophonic sound depends on a person having two ears, just as stereoscopic vision depends on having two eyes. Each ear is in a different position to the other and the way the brain triangulates the sounds provides it with the information to position a sound in the soundstage. In the case of someone with hearing in only one ear, the brain compensates, but that theory is beyond the scope of this unit.

For learning aim B, learners would probably use a computer-based device for pre-recorded sound, as it is by far the easiest to control rather than separate replay devices patched into a dedicated sound mixer. Computer-based sound mixing applications require the use of AIFF and WAV sound files. The software first creates a master file folder, often called a project, which is what happens when the application is first directed to open a new file. The first task is to import the sound files to be mixed, either by click and drag, or following the instructions with the specific application.

Prior to this stage, the number of tracks to be mixed should be indicated to the system, along with some other basic data (input levels, equalisation, input gain), but not assignment of the pan controls or any treatments to be applied. This occurs at the mixdown stage. It is also helpful if the pre-recorded sounds have been checked for level and been recorded or changed so that their relative levels as original signals is similar. This is why it is crucial to plan the process and to have some preconception of what you are aiming for in the final mix. To aid this, there are a number of mixdown sheets pre-prepared for sound mixing applications and these should be used. Alternatively, specific mixing sheets could be devised.

Live sound is often best mixed on a multi-channel mixing desk. Most multi-channel mixing desks are now equipped with sophisticated memories that allow a range of parameters to be saved for use during the 'take'. Live sound must be captured by the use of microphones which should be selected specifically for the intended sound source (uni-directional vocal mics for voices and omni-directional mics for sounds and ambience). The technique employed for live mixing requires the pre-assignment of input gain, channel equalisation, panning of the channel to a specific point on the soundstage, output level and final mix level. There is no option to fine tune once the recording is done. The only way to change it is to re-record the whole piece. Live recording is often done in short bursts for this reason. The final mix is recorded onto either a dedicated recorder, or a computer.

General mixing techniques apply irrespective of whether the sounds are live or pre-recorded. With master faders at zero, set input levels first and set them from zero (fully anticlockwise), with channel faders at 0dB, which is usually about 6dB below maximum travel, until a signal registers on the channel monitor at -4dB. This leaves plenty of headroom (6–10dB). If recording live, set the equalisation (EQ) as required. There may be a mixture of fixed, sweep and parametric options. Now drop each channel fader to -6dB on its scale, hit each mute button and bring the master faders up to -6dB on their scale. Set each channel or sound panpot to occupy its predefined place on the soundstage. Un-mute each channel one by one (hit each mute button) starting with voices until you can hear every channel across the soundstage. If something is too quiet do not increase its channel fader, but decrease all other channel faders until you can hear it. Lastly, bring up the master faders from -6dB to give a signal output reading of about 2dB at maximum. Do not go over 0dB because it will over-record on the master recorder.

For learning aim C, as with some other units, there is little input for this aim. All the teaching and learning will have been undertaken by this stage. You will, however, need to issue the assignment brief, explain it in detail to learners, and ascertain that they understand it sufficiently that they can attempt it without support. Your role throughout the assessment is as facilitator, particularly to ensure that technical resources do not let learners down. Assessment in the previous two learning aims is of a similar nature. Do not help learners during their assessment. Treat the assessment as an open book exam, where learners may make reference to their own notes and source support from books and the internet, but not from you.

Learning aim	Key content areas	Recommended assessment approach
A Understand the principles for mixing live and pre-recorded digital sound	**A1** Mixing digital sound **A2** Planning procedures **A3** File management procedures	A written or audio-visual report about the reasons for mixing live and pre-recorded sound for digital sound recordings.
B Explore the techniques for mixing live and pre-recorded digital sound	**B1** Types of equipment used to create mixing for live and pre-recorded sound **B2** General mixing techniques **B3** Live sound mixing techniques and procedures **B4** Pre-recorded sound mixing techniques and procedures	A written report or audio-visual commentary and practical demonstration, including relevant mixing charts and signal path diagrams, of how to prepare appropriate equipment for mixing digital pre-recorded and live sound.
C Create a stereo soundtrack containing pre-recorded and live digital sound for a media outcome	**C1** Practical audio mixing for a chosen soundtrack **C2** Overall completed sound quality	A completed mixed recorded soundtrack of live and pre-recorded material as the audio component of a digital media artefact and an evaluation of the finished product, taking into account audience feedback.

Assessment guidance

Assessment of this unit includes understanding the theory of as well as the practice of digital sound mixing. As stated in the unit specification, the obvious form of assessment for learning aim A, which is knowledge based, is a written report or an audio-visual demonstration of the theoretical aspects of sound recording. To obtain the higher grades, learners will need to demonstrate an in-depth understanding and articulate this clearly using appropriate language and appropriate use of technical terminology. Learning aim B has a more practical outcome, whereby each learner must demonstrate their understanding of the necessary processes and undertake activities to show how sound mixing equipment functions in both a live and a pre-recorded context. Assessment grades will be dependent on the degree of skill shown when using the equipment. This is likely to be best assessed by observation. Learning aim C requires a specific product to be made, with assessment being a combination of observation and submission of an artefact, with the grades dependent on the quality of both.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 38: Sound Mixing

Introduction

Sound mixing is a wide ranging subject area and difficult to fit into a unit of this length. Learners will need to focus on the purpose of a mixed soundtrack in a range of contexts. This may involve television, film, radio and possibly a website or a computer game. The unit is not an opportunity to create a pop song. However, soundtracks do consist of music, much of which is pre-recorded licensed production music (except in mainstream movies where the music is written specifically for the movie). The production libraries hold a massive wealth of pre-recorded sound-alikes or 'pastiches' on popular themes and tunes, so arrange for your learners to use them. They should use instrumentals, not songs with lyrics, unless absolutely essential.

The final soundtrack must comprise both pre-recorded and live sounds, for example scripted dialogue and sound effects, both spot and ambient. Learners should be encouraged to address both diegetic and non-diegetic sound: see the website filmsound.org/terminology/diegetic.htm.

Learning aim A – Understand the principles for mixing live and pre-recorded digital sound

- Open this learning aim by leading a session that summarises the key elements of mixing sound, planning procedures and file management. It might be a good idea to provide handouts at this point, as a reference for learners as they progress to the practical elements of the unit.

- Set up a stereo listening environment (or alternatively provide headphones) and get learners to listen to examples of both well-mixed and badly mixed sound material. You may have examples of both of these from previous learner work. Encourage learners to relate to high-quality mixed sound and to pick out each separate sound source, decide whether it is well recorded or not and analyse the content so that they become aware of what they are aiming for. Encourage class discussion about the quality of the recorded mixed sound.

- Start to elucidate on the key principles; the main dos and don'ts for mixing. Ask the class 'What are we trying to achieve, to convey to the listener?' First on the list must be clarity, so the product can be heard clearly. These days, especially on television and film, there is too much poor sound. The director depends on the visual effect of the image to satisfy the viewer. If you are primarily a 'listener', rather than a 'viewer', the difference in quality of the sound between TV/film and radio/audio book, is remarkable.

- The best type of sound file to use for the demonstration of clear stereo is where there are a number of sound contributors, for example in a radio play or dramatised audio book. The voices will appear to come from different parts of the soundstage and, as such, conversations between characters will be much clearer. Sound effects will not be intrusive and obliterate the dialogue, meaning that you can keep track of what is happening in the play.

- Explain to learners that the levels of both pre-recorded and live sound must be at finite levels. If recorded at too low a level, they will not have the 'legs' to enter the mix and, if they are recorded at too high a level, they will overpower the mix. You should aim for the lowest dynamic range (difference in dB (decibels)) between the loudest and quietest sounds in the mix.

- You will need to set up a mixing scenario to demonstrate how it is done. As explained elsewhere, you need to be able to do everything that you expect your learners to do, so, if there are any gaps in your understanding of the process, run through it before you attempt to demonstrate.

- It is suggested that you first demonstrate mixing pre-recorded sound files on a computer-based software application, and a good one to start with is a simple mix of pre-recorded music sound effects and dialogue. Find a music track for a drama or crime programme or another similar track that will engage learners' attention, some sound effects from a royalty-free sound effects CD, sourced from the internet, and some dialogue from a BBC Radio 4 afternoon play (BBC Radio iPlayer), or a dramatised audio book. Convert each sound into a WAV or AIFF file and store in a folder on the desktop. Import each file into a stereo editor and check that levels are similar. You do not want large differences in dynamic range.

- Select your multi-track mixing software. Adobe Audition is good if on the PC platform. Open and save a new project. It may be necessary to purchase education licences for the software, but these are less expensive than mainstream licenses.

- Open the application and set up for as many channels as you will need. This would be two for the stereo music track (one left and one right), one for sound effects and one for dialogue. Set the channel fader levels (you do not need to set input gain as you will be dragging the files onto the channels or going through the import procedure) to -6dB and the masters to off (-60dB usually). Drag or import the files from the desktop folder and position them on the timeline. You need to be able to play dialogue over music and have spot sound effects (like a gun firing, or a door closing) occurring either between dialogue or over dialogue at a level that will not impinge on the clarity of the dialogue. (All the foregoing should be a commentary that you use to accompany your demonstration.) Press the play button and adjust the mix until you obtain the required outcome and the dialogue is clear over the music with the sound effects being heard clearly between dialogue exchanges and at suitably quiet points on the music track. Do not expect success at first try. It is a skill that is acquired only with practice.

- You will find that the best mixing results are obtained if you reduce a loud sound signal to make a quiet signal audible rather than to try to increase a quiet signal. You can also demonstrate the use of graphic level control with the click and drag lines on volume and other parameters. Demonstrate EQ and reverb plug-ins and show how they can be bypassed. Finally, demonstrate how a specific take can be bounced to disc or exported as a WAV, AIFF, interleaved broadcast WAV file or as a AIFF file, and how these can be burned to disc and a final CDDA file.

- If you are using MAC, there are equally good applications such as Audiodesk (which comes bundled with MOTU Firewire and USB interfaces which can be used in live recording), or there is AVID PROTOOLS cross-platform (PC or MAC). Free applications include Audacity (cross-platform single and multi-channel editing and mixing) Sound or MIXPAD from nch.com. You could also look on the internet for free software but be mindful that some websites might download malware.

- Demonstrating live mixing is a little bit daunting if this is the first time you have done it. You will need either a hardware mixing desk and a master recorder of some sort, or a MAC/PC with an audio interface. You do not need the state of the art latest kit, nor do you need retina displays for graphic displays (only photo-image manipulation).

- Your live mixing will also require a minimum of vocal microphones (Studio voice mics AKG C1000 omni-directional or Shure SM58 BETA vocal uni-directional if in a noisy environment) so that you can have two voices in conversation. You can approach the rest of the sound sources in two ways – either have replay devises feeding additional channels on the mixing desk and mixdown in a live situation (which you must do if using a hardware mixing desk), or you can stick to a computer-based mixdown.

- If you choose computer-based, you will be able to record the 'live' sound, dialogue and possibly sound effects (if you are being ambitious and going for live sound effects like real closing doors, clinking glasses, sound of punch landing etc.). Learners tend to get really involved in creating their own live sound effects, or they can still have the same fun creating the SFX but recording them under more controlled conditions and then importing the effects file to the recorded dialogue. Dialogue is the most difficult to record, because you have to be aware of the distance of the mouth from the microphone (the possible introduction of the proximity effect (bass tip-up) if too close and the distance effect if the mouth gets too far away). These situations can arise if you have too much to watch while recording. The mouth should be at about 15 to 20 cm from the microphone, not on top of it, otherwise popping occurs. The use of pop gags or wind shields will help reduce popping. To avoid this, you should record the dialogue and sound effects separately. Add the SFX and the music and any ambience, 'atmos', 'buzztrack' or background sound afterwards in a separate click and drag of sound files onto the timeline, each onto its pre-designated track or channel.

- Planning is key. Get learners to put together a recording map, which is a diagrammatic representation of the recording, by drawing it on a long thin piece of paper. You could also use software such as Word or Notes and use the custom setting for paper size to create a long thin horizontal document, on which learners can enter text. This has the advantage of being able to be scrolled on a projector in class.

- Encourage learners to take notes as they go along, so that they will be able to reproduce a fair version of the material that you have explained and demonstrated, in the assessment.

- In particular, learners should consider the ways in which their research will inform their own sound mixing in the next learning aim.

Learning aim B – Explore the techniques for mixing live and pre-recorded digital sound

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of sound mixing techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

As learners will have just completed a written, or similar report style assignment for learning aim A, they will be ready to engage with some practical work. Reintroduce the mixing practical class demonstrations that you did previously, but this time get learners to undertake the tasks themselves on the equipment available, both computer-based and using mixer hardware.

- Learners should be given ample time to experiment and become familiar with mixing before they are set the assignment brief. Remember that each learner must complete the task individually and that, although group work is encouraged when practising and experimenting, as soon as the assignment brief is issued, each learner must work on each aspect of the assessment in order to achieve the grade.

- There are so many multi-track recording software applications available that it is difficult to recommend one in preference to another. The industry prefers MAC to PC as a platform because of its stability when using large file sizes – anything up 10 gigabytes. Uncompressed audio is greedy of storage space and some non-destructive mixing applications do not delete anything, to the extent that, unless the hard drive is large (with at least 30% headroom for storage) and unless there is a significant amount of memory (16GB is fine but more is better), the computer will slow down. This is more characteristic of PC than MAC computers. Do not connect the workstations to the internet. This also slows them down. By not connecting to the internet except for upgrades, means that security software that would

otherwise slow a computer down, does not need to be installed, except when upgrading online.

- The technique of mixing only pre-recorded material is less complex than mixing live voices, music and sound effects. With live mixing, there is one stab at getting it all right at the same time (individual record levels, EQ, special separation etc.). With live recording, even though you may be using a microphone for each sound source, it will not prevent sound from one source 'bleeding through' into another microphone in the same room. When recording multiple sounds in the same space, you can use a 'close-micing' technique with very uni-directional dynamic microphones, even in a studio, where one might otherwise use omni-directional condenser mics. The separation that a Shure SM58 Beta gives is much greater than, for example, an AKG C1000. Stop popping with a pop gag or wind shield.

- Work on the principle that if a sound source is too low, it is probably because the other sources are too loud, so reduce everything else rather than increase the low sound. Dialogue needs to be HEARD so do not let learners drown it with loud sound effects or mood music. A lot of sound for films and TV programmes is poor because the director wants to get the 'atmosphere' right and, in doing so, kills the dialogue. Make learners aware of the spatial mix on the soundstage. In reality, all sound does not come from the same geographical point. It comes from all around and, to get this effect, sounds must be assigned to their origins accurately.

- Remind learners that, for pre-recorded sound mixing, they should start their projects with clean, edited pre-recorded material. Individual levels should be optimum (-6dB) and pre-adjusted so that, when imported to the timeline, all are of the same or similar starting point. They do not need to be normalised as this will be done with the final bounce, which should be imported to a stereo editing application for final tweaks. Sound clips should be imported to the their own assigned tracks (or channels) and positioned on the timeline so that they appear in the correct place in time. Each track should be assigned a position on the soundstage and any EQ required should be applied to the individual channels and/or to the mix master level. Effects can be added at this point to enhance individual tracks or the whole recording.

- Live recordings cannot be cleaned up prior to recording. Live work is very much a 'try it and see' situation. It requires much more practice and double or triple the amount of time so ensure that learners are not trying to do more than 60 hours of work. If recording dialogue, this must be rehearsed prior to recording to avoid spending too much time 'in studio'. Remind learners that, if this was a real job, their studio time would be limited and it would be expensive just to hire the kit. Remind learners, also, that the quality of sound required for broadcast or mainstream film/video is not achieved on inexpensive equipment or using inexpensive microphones. Good mics cost hundreds of pounds and they will probably, at this level, not be able to distinguish the difference between a good mic and a mediocre mic. It is worth remembering that all (or at least most) microphones are analogue devices that take an analogue sound pressure wave and convert it to an analogue AC voltage (of approximately 2–10 millivolts). This analogue signal is input to an analogue to digital convertor (ADC) at the start of the signal path (see earlier learning aim) to make it into a digital series of voltage pulses. Where the signal is output, it may well have changed back to analogue if it is output from a mini-jack stereo socket such as on a computer. It only remains a digital signal if it is output from a digital connector SPDIF or AEC (Toslink phono XLR for example). Headphone sockets and loudspeaker sockets are analogue (because loudspeakers are, in the main, analogue).

- During the practice classes, assist learners and encourage peer learning where appropriate. Demonstrate task sequences that learners may have forgotten. Observe learners' progress and use observation records to assist when undertaking assessment by observation.

Learning aim C – Create a stereo soundtrack containing pre-recorded and live digital sound for a media outcome

- Prior to issuing the assessment for learning aim C, run revision classes and use question and answer sessions to encourage learners to refer back to their notes to find the answers. Preparation for assessment can be completed in groups, but the assessment must be individual, so allow plenty of time for research, revision, setting-up the equipment and double checking so that learners feel confident before starting the assignment. Revisit any areas where there is doubt. Give learners sufficient time to gather the resources they need, for example pre-recorded sound and music and emphasise the need to plan and have evidence of planning, as it will help inform their progress if anything goes wrong with the recordings and mixes.

- Ensure that learners understand that the live component of their assessment is likely to be the most time consuming. Ensure that they rehearse any talent (i.e. music or dialogue) thoroughly before the recording (rehearsal of talent will not be assessed – only the final recording). Remind learners to have all their material pre-checked. This assessment is for mixing and only involves recording live tracks to the point of the mixdown. Remind them that they cannot pre-record all of the material, but they can rehearse read and rehearse mix another piece so that they become familiar with the process prior to coming into the studio.

- Learners will be producing recordings as evidence of fulfilment of this learning aim, so you will need to direct them in how to organise their sound files for submission. Bear in mind that it is not sufficient to simply ask for the final 'mixed' sound file (which will be in either WAV or AIFF format). In order to see the efforts they have input, you will need to see the whole project file. Therefore, ensure that all learners save and submit their project file as well as their 'bounced' finished piece.

- When you issue the assessment (assignment brief), go through it in detail and ensure that each learner understands what they need to do. Remember that all talent or 'voicing' by learners from the group or by other people who have been imported specifically to be the voices, will not be assessed on their 'acting' ability. It is the mixed product that is being assessed not the 'performers'. If there is a Performing Arts course in your centre, talk to the tutor and see if you can integrate some Performing Arts learners to do voice work for your learners. They may be able to link the work with a unit that they are studying.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 3: Digital Media Skills*

- *Unit 4: Pre-production Portfolio*

- *Unit 11: Radio Production (Fiction)*

- *Unit 15: Advertising Production*

- *Unit 16: Factual Production*

- *Unit 19: Scriptwriting*

- *Unit 22: Interviewing Techniques*

- *Unit 25: Sound Recording*

- *Unit 24: Sound Editing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Resources must include:

- a computer

- a range of microphones

- cables, headphones

- software application licenses

- hardware mixers for each learner, especially when undertaking the assessment component.

Technical support should also be available to ensure that all equipment is functional.

Additionally, access to a production music library (online), sound effects library and play scripts, should be available.

Textbooks

All the following titles are specialist books on sound recording and mixing. Each on its own would provide an appropriate text to support this unit.

- Borwick J (editor) – *Sound Recording Practice, Fourth Edition* (Oxford University Press, 1996) ISBN 9780198163817.
  This book covers every aspect of sound recording.

- Huber DM and Runstein RE – *Modern Recording Techniques* (Focal Press, 2005) ISBN 9780240806259.
  This book looks at the day-to day-practice of music recording and production.

- James P (editor) – *The Live Sound Manual* (Backbeat Books, 2002) ISBN 9780879306991.
  This book covers every aspect of live sound.

- Moulton D – *Total Recording: The Complete Guide to Audio Production and Engineering* (KIQ Productions, 2002) ISBN 9780967430409.
  A comprehensive guide to audio production and engineering.

- Nisbett A – *Sound Studio* (Focal Press, 1995) ISBN 9780240513959.
  This book covers the virtual studio, surround sound, hard drive mixers and multi-channel recorders, DVD and CD-RW.

- Rumsey F and McCormick T – *Sound and Recording, Fifth Edition* (Focal Press, 2006) ISBN 9780415843379.
  A good guide on theory and industry practices.

- Toole F – Sound Reproduction (Focal Press, 2008) ISBN 9780240520094.
  This book covers the whole sound reproduction chain.

Unit 39: Live Radio Broadcasting

Delivery guidance

In this unit, your learners will study live radio programmes, develop and pitch proposals for their own programmes and then go on to broadcast them in as realistic a way as your centre's resources allow.

Some centres already run Restricted Service Licence (RSL) radio stations to motivate students and provide them with the opportunity to broadcast on FM for a limited period of up to 28 days. This unit will allow such learners to demonstrate achievement of learning outcomes related to live radio broadcasting, which will contribute to their qualification.

If you are unable to run an RSL, which is a big undertaking, you might prefer to stream the audio from your 'radio station' online or even simulate a temporary radio station which 'broadcasts' through a public address system to an audience in a particular location, such as a refectory or a social space in the centre.

However ambitious your radio station, it can provide learners with some exciting challenges as they produce evidence of meeting the learning outcomes for this unit.

Approaching the unit

Learners only need to plan and produce one live radio programme, irrespective of whether or not you run a temporary or permanent radio station. Of course, each individual within a group will need to generate evidence of meeting the learning outcomes of the unit. However, it is not necessary, for successful delivery of the unit, for the assessed work to take place within the context of a wider radio station run by your centre.

Even a simple public address-style 'radio station' sending its output along a wire to a loudspeaker in a coffee bar could form the basis of an internet radio station. If streaming audio on the internet is too ambitious at this stage in your radio 'journey' as a centre, why not try podcasting the live programmes made for this unit. They could be recorded as individual 'stand-alone' MP3 files and simply posted online on a suitable page of your centre's website. Learners, their friends and their families will then be able to hear the programmes at a time of their choosing.

A visit to a working radio station would be a useful illustration for learners of what they can aspire to and how they should behave in terms of professionalism 'on air' and in the studio. This would considerably enhance the vocational relevance of the unit. Alternatively, a radio producer and/or a presenter might be willing to visit your centre as guest speakers, or even to advise learners on some of their decisions around content.

Delivering the learning aims

For learning aim A, learners need to examine different types and styles of live radio broadcasting. Learners should be encouraged to read about this form of media content production and to listen to a wide range of examples from different kinds of radio station in order to gain a sense of what they might be able to adapt for their own programmes. By making a presentation to the class, the highest-achieving learners will be able to demonstrate the knowledge they acquire about live radio broadcasting and to show that they have considered a range of options for the various elements within their own programmes and made reasoned choices based on real-life examples.

Their 'pitch' to you, as you role-play a commissioning editor, provides a clear focus for their presentation as the best examples will explain what alternatives they have considered and which, from among them, the learner has chosen – as well as why they have made those choices. There is a clear vocational element to this approach, as pitching well-reasoned ideas and proposals can have very positive career outcomes for both staff and freelance workers in the media industries. The best examples will clearly relate approach, style and content of the proposed live broadcast to the likely interests and preferences of the target audience. Learners could enhance their pitches by playing short examples that they have found of live broadcasting types and styles, although they should play a minimum of music and focus on the linking material *between* the songs. This might include presenter announcements, interviews, 'vox pops' or scripted material such as film reviews.

For learning aim B, learners will need to develop a live radio broadcast for a target audience.

This learning aim provides the context for the skill development aspect of this unit. Each learner should practise and then put to use a range of the various skills involved in live radio broadcasting. Some involve preparing recorded or scripted material for use during the live broadcast, and some involve rehearsing techniques to be used for the actual live broadcasting in a real or simulated radio studio.

A good deal of planning and content research should precede any pre-recording of material for use 'on air', and this should be informed by the pitch, as amended following any tutor feedback after the presentation for learning aim A. A vox pop on campus or in the street requires careful consideration beforehand as to what questions should be asked of the people asked to contribute.

Before going out to record, learners should master the skills required to operate a microphone and audio recording device, of whatever type, and be aware of other considerations, such as acoustics and the desirability of recording where background ('ambient') sound will enhance without detracting from the listening experience.

An interview requires background research into the subject, and possibly the interviewee, in order to plan what questions to ask and in what order. The operation of the studio equipment and the live presentation of links between songs and into and out of speech items requires a good deal of off-air practice before the studio eventually goes live. Presenter links should be practised and listened back to in order to form a judgement of what works well and what does not, using the examples found for learning aim A as a guide.

For learning aim C, learners will need to broadcast live a real or simulated radio programme to a target audience. The work done for the previous two learning aims should all lead to the rehearsal and live broadcast that are the focus of learning aim C. Even for the rehearsal, the content of the programme should have been worked out in fine detail. A suitable length for a programme which mixes music and speech items, in order to demonstrate the development of a number of skills, is 60 minutes. Every minute should be accounted for in the detailed running order for the programme, produced and fine-tuned according to the successful pitch for learning aim A, as modified according to any tutor feedback.

The duration of any pre-recorded items, perhaps cut to length, will already be known, and any live scripted, ad-libbed or interview items can be lengthened or shortened during transmission, as required, so that the finished programme runs to length as planned. If a live interview is planned, the interviewee does not necessarily have to be present for the rehearsal. A learner or a tutor might act as a substitute, although the actual guest will then need briefing and managing in advance of going live.

The skills and techniques of radio production cannot be adequately described in this document, so tutors without any prior experience in this field are strongly recommended to read up on them in an appropriate manual or academic text, one good example of which is Starkey G – *Radio in Context*, *Second Edition* (Palgrave Macmillan, 2014) ISBN 9781137302250.

Learning aim	Key content areas	Recommended assessment approach
A Examine different types and styles of live radio broadcasting	**A1** Types of live radio broadcasting **A2** Styles of live radio broadcasting **A3** Target audience	A pitch for a radio programme, comparing a number of types and styles found in industry and explaining reasons for use.
B Develop a live radio broadcast for a target audience	**B1** Planning and production **B2** Speech and feature content **B3** Live radio broadcast	A plan for a live radio programme, including detailed plans of running order of speech, music (showing durations), pre-produced speech material.
C Produce a live broadcast to a target audience	**C1** Preparation **C2** Live broadcast **C3** Audience responses	A rehearsal process. A recording of the live radio programme as it was broadcast on internet, school, college or Restricted Service Licence (RSL) radio or relayed on a closed-circuit system.

Assessment guidance

For learning aim A, the investigative work undertaken by each learner leads to a time-constrained presentation which takes the form of an overview of the genre and then a pitch which proposes to use some, rather than others, of a range of types and styles of live radio programme. This is a vocationally-relevant type of assessment, as the role-play it creates positions each learner as a practitioner seeking employment as a freelancer pitching for work or as an employee proposing to undertake a particular project. The assessor is effectively positioned as a commissioner of independent producers or a programme controller looking for new proposals with which to populate your radio station's programme schedule. Pitching ideas is a key skill for many media practitioners. For learning aims B and C, the learner has effectively received a 'commission' to produce a live radio programme for the commissioner and prepares and then produces the broadcast, as agreed.

The nature of live broadcasting is such that sometimes the programme does not go according to plan. What might be taken into account, though, is how the learner deals with an unexpected situation that arises and the level of preparedness achieved through planning and contingency planning – for the live guest who does not turn up, for example – in the spirit of 'the show must go on'!

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit.
Activities are provided in preparation for the external assessment.

Unit 39: Live Radio Broadcasting

Introduction

One way of introducing this unit is to play some examples of the speech links between songs in a live radio programme that seeks to do more than just play continuous back-to-back music. Some of those links might include information, recorded items such as vox pops or short interviews. Learners can then be set the task of researching the different types and styles of live radio broadcasting, pitching a proposal for a programme of their own based upon their findings and then learning the skills needed to finally rehearse for and then produce the programme, gathering prepared content before transmission.

Learning aim A – Examine different types and styles of live radio broadcasting

Lead into the unit aim with a session that covers the different types of broadcasting, styles of broadcasting and the range of target audiences.

Set the learners the task of researching different types and styles of live radio.

- Listen to a range of different types and styles of live radio programmes. These should be on different radio stations, at different times of the day and night. They should also be aimed at different target audiences, as defined by age group, coverage (national, regional or local) and approach to the use of speech.

- Prepare a presentation in two parts which:
  - o explains the different types and styles found and explains how they have been selected to serve different target audiences and different purposes (for example, mainly music programmes, sports commentaries, magazine programmes featuring several different speech items, music and chat, competitions etc.)
  - o proposes, in detail, a programme you would like to produce for a given audience, giving reasons for your choices of type and style.

- In particular, learners should consider the ways in which their research will inform their own radio broadcasts in the next learning aim.

Learning aim B – Develop a live radio broadcast for a target audience

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of live radio broadcasts that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

- Once you have agreed learners' proposals (these should be comprehensive plans which cover the timing and required studio booking logistics, permissions, choosing and creating content etc.), as in their pitch, set them the task of planning the fine detail of the programme and gathering content for it. This should cover speech and other content and an appraisal of how to achieve the required production values.

- The nature of this genre of radio programming is that it could be done by either a single learner per programme or in small groups, depending on resource and time constraints in your centre. A programme going forward into production may, therefore, be an amalgam of more than one pitch, and it is likely that your own feedback on the pitches will need to be taken into consideration by those learners, especially where proposals were unrealistic, inappropriate or unambitious.

- If working in a small group, each learner must demonstrate the full range of skill development required by the specification, which may involve the rotation of roles

as learners take turns at performing key functions in planning and production. Some of the content gathering will require skills to be evidenced for learning aim C, so learners would benefit from tackling the two learning aims concurrently.

- Plan your programme and produce the content for it. This means preparing a detailed running order of items in it and doing the following:
  - carrying out research for both live and pre-recorded items, identifying interviewees, planning questions, researching facts and writing scripts
  - recording any interviews and vox pops you intend to use on air and editing pre-recorded material for inclusion in the live programme.

Learning aim C – Broadcast live a real or simulated radio programme to a target audience

Set the learners the task of developing the skills required for the live radio broadcast and planning and producing the content. This is likely to include taught sessions, rehearsal time, and demonstrations of studio and portable radio production equipment.

- You should ensure that you enable learners to:
  - learn the skills necessary to produce pre-recorded material for the programme and to operate the studio
  - prepare for and perform a full rehearsal of the live broadcast, using your pre-recorded material where appropriate and following your running order carefully
  - following the rehearsal, identify what aspects of your programme need improving before doing it again live 'on air'
  - prepare for and perform the live radio broadcast 'on air', keeping to time and maintaining high standards of professionalism at all times – avoiding using any strong language or breeching the legal requirements.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 22: Interviewing Techniques*

- *Unit 24: Sound Editing*

- *Unit 25: Sound Recording*

- *Unit 38: Sound Mixing*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Beaman J – *Interviewing for Radio* (Routledge, 2011) ISBN 9780415561709.
  This book covers interviewing in depth.

- Emm A – *Researching for the Media* (Routledge, 2014)
  ISBN 9780415843560.
  This book is full of information and strategies for content research.

- Starkey G – *Radio in Context*, *Second Edition* (Palgrave Macmillan, 2014)
  ISBN 9781137302250.
  This book has chapters on the basic skills of radio production, idea development, content research, interviewing, speech package making, music programming and live 'sequence' programmes.

Websites

- http://stakeholders.ofcom.org.uk/broadcasting/guidance/programme-guidance/bguidance/
  The Ofcom Broadcasting Code, produced by Ofcom, the Office for Communications. This is the code of practice for broadcasters licensed by Ofcom, including RSL radio stations and community radio stations. Contravention of its rules can lead to fines or withdrawal of licences. Radio and audio that appears only on the internet or over a public address system is not subject to the code, but it is good practice to teach learners about the code and for them to adhere to its provisions, as this will foster good professional practice.

Unit 40: 3D Modelling

Delivery guidance

Approaching the unit

This unit is about producing 3D models to use in games and the emphasis is on both making sure that the models are fit for use in a game engine and creating good-looking models.

Learners need access to actual game assets as much as possible. It is through the study of clean, optimised meshes with efficient UV layouts for materials and light mapping that they will develop the best understanding of how 3D models are constructed for games. This study will also provide inspiring practice for them to emulate.

Delivering the learning aims

A major considerations for the entire unit is your choice of 3D package and game engine. The unit is written with traditional 3D packages in mind and most should be fine, but it is not intended to be taught using a digital sculpting package and it is unlikely that you would be able to deliver the content through such a package appropriately. It would be entirely suitable to use such a package for the creation of a high-poly version of a model to bake out a normal map, but this is not expected in this unit.

The content is written so that it can be taught through any of the currently most popular engines. If you choose a niche engine, you will need to be sure that you can deliver the content of the unit through it. Your engine choice will almost certainly commit you to either a conventional materials set-up (diffuse, specular, gloss, normal) or a physically-based shading set-up (albedo, roughness, metalness, normal). Learners only need to know about the set-up that they will be using.

Learning aim A introduces learners to the structure of 3D models and the different uses to which they can be put in a game engine. It can be extremely helpful to analyse existing game models. Many engines ship with some content, many have marketplaces with some free content and community generated content is also available, although you will need to vet this carefully to make sure that it is appropriate.

Learning aim B involves developing ideas for the models. You will need to adopt a specific workflow pattern that allows students to have an idea, research real-life artefacts and/or game models to provide further ideas, produce drawings and/or comments that will help them develop that idea and then produce clear reference drawings for use in the modelling package. You should give students a variety of practice tasks for the different stages of this workflow so that they have clear formative feedback before they begin the assessment.

Learning aim C covers the practical creation of learners' own 3D models for use in a 3D game engine. You may wish to teach this separately, or in tandem with the content for learning aim A. The latter approach means that you will be able to teach learners about models partly by teaching them how to create them. This approach would give you flexibility in the order of assignments, so you could assess learning aim A before or after the completion of learning aim C. One advantage of assessing learning aim C first is that learners can draw on their own work when discussing examples for learning aim A.

Learning aim	Key content areas	Recommended assessment approach
A Understand the structure and use of models for 3D games	**A1** Structure of 3D models **A2** Uses of 3D models	A report or presentation outlining the structure and uses of 3D models.
B Explore ideas for the production of 3D models	**B1** Generate and develop ideas	A design log or specification covering the development of ideas from original concept to final scale drawings, with comments on all visual material.
C Develop 3D models for use in a 3D game engine	**C1** Create 3D models **C2** Set up 3D models in a 3D game engine	Final files of the models in the 3D package, export files and level file from the 3D engine containing the set-up models. A spoken or written file documenting the work done.

Assessment guidance

The recommended assessment approach for learning aim A is a report or presentation, but you can use any method or methods which allow learners to independently demonstrate their understanding to a third party. Presentations should be videoed, for example, or learners should record commentary for the slides. There is a mass of information about modelling available online. However, learners should be explicitly warned about plagiarism and you will need to be particularly vigilant.

Learning aim B has some scope in terms of acceptable assessment evidence, but the essential components are the solid bullets in the specification content. You need to make sure that there is comparable demand between learners. Some learners may be developing an idea for a single complex object made up of five or six sub-models and others may be developing ideas for five or six simple separate objects, although this latter route is much more likely to be true for pass level learners. You should not expect learners to do more research or development work because they have chosen to model more objects. In terms of a final reference, a learner can get a distinction when producing a reference for a single complex object. This reference would need to be carefully drawn to scale in detail from the top, front and side views, and it might contain separate detail for some aspects of the object. A learner producing a final reference for separate objects may only do an outline reference from a single viewpoint.

The evidence for learning aim C requires care. You need to judge how well learners have modelled and mapped their work, so it is essential that you have the files that they have created in the 3D package. You also need to judge how well learners have set up the model in the game engine and so it is also essential that you have the engine files with the models in use. Screenshots are not an acceptable alternative to either of these files. You will also need something that documents what learners have done.

A particular concern for learning aim C is the requirement to use polygonal and curve/spline based modelling. Distinction work will show proficient use of modelling techniques, but there is no requirement for balance between the two approaches to modelling, simply that they have both been used. However, it should be noted that, if they have not both been used, then the learners are unable to achieve a pass.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 40: 3D Modelling

Introduction

You could begin by looking at a range of 3D models, both in your chosen game engine and in your chosen 3D package. The aim of this unit is to produce clean models that function well and look convincing in a game engine, so learners should develop an understanding of what this means from the outset and develop the aspiration to produce something similar of their own. Access to commercial game studios can be difficult to negotiate, but seeing the work of 3D artists in a studio or arranging for an artist to visit the learners would be another excellent introduction, if the opportunity is available.

Learning aim A – Understand the structure and use of models for 3D games

The teaching of this learning aim can be done in tandem with the teaching for learning aim C, or be carried out separately. Both routes require a systematic approach to the content and plenty of examples that learners can explore and discuss.

- You should deliver this content practically. Learners will best understand the structure of 3D models by exploring them in a modelling package. Concepts such as UV coordinates can seem challenging and abstract unless learners are able to physically see what changing the position of model elements in UV space does to the final appearance of the model.

- You may also want to create your own models specifically to teach aspects of the content. For example, you could teach the importance of vertex colours by having a simple model on which learners have to blend two different materials by applying vertex colours.

- You will also need to use your chosen game engine early on. You will find it easier to teach aspects of A1 by looking at how the structure of the model is critically important in game. The placement of pivot points of a finished model, for example, can seem a minor issue in a 3D package but becomes hugely important when the model is imported into the engine, especially as the engine may use the world centre as a pivot rather than the pivot of the model in the 3D package. Collision hulls, level of detail and constraints are all similarly significant in terms of the game engine.

- You will also need to teach the content for A2 through the game engine. You may find it helpful here to have a sample environment or environments that contain the full range of model types. You can best show the difference between decorative meshes (such as switchboxes) and small plants and environment meshes (such as crates and trees, which play a structural role in an environment) by looking at their use in practice. Similarly, you can best teach the importance of designing modular meshes (where the same small group of meshes is used to construct a diverse variety of structures in a game while minimising memory overhead) by getting learners to build structures in the engine with modular meshes.

- In particular, learners should consider the ways in which their research will inform their own 3D modelling in the next learning aim.

Learning aim B − Explore ideas for the production of 3D models

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of 3D modelling techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Exploring ideas for the production of models can be done in a wide variety of ways but has a very clear workflow pattern. You should encourage learners to experiment with techniques to find what is most productive for them, while, at the same time, making it clear that the final outcomes must fully document the process that they have gone through and that the final reference images should be usable by someone else to deliver their vision for the models. Some learners may plan more visually, and some learners may plan more verbally, but the fundamental approach is the same.

● You should give learners a preparatory brief for their models so that they can practise using techniques before the assessment. Learners should be able to choose easily their own methods of generating initial ideas, but you may need to approach legal and ethical ideas with care. There are commercial games with poor approaches to decency, some of which have generated considerable controversy, and there is widespread debate about gender representations within the industry. You will need to guide learners to understand that, just because a published game has taken a particular approach, this does not automatically make it acceptable for them to do the same.

● You should teach learners to consider the availability of suitable textures at the start of the exploration process, as a constraint on their ideas. You will need to give learners a texture library to use. Your 3D package and your game engine are both likely to have textures that learners can use and there is a wide range of open-source and paid for material available online – you can source this for them to some extent, although they should also do some research of their own. Learners should document the copyright permission of any texture they source outside of the library that you provide. Learners may choose to create their own assets, but are not expected to do so. You should not penalise learners if the textures available to them are not ideal, but you should expect them to show that they have taken this into account in their planning, as much as possible.

● You will need to show learners the importance of the research stage so that they do not simply jump to designing their ideas. Models need to look convincing and the best way to achieve this is to look at the structure of real-world objects. Even fantasy or futuristic objects will need to be based on elements of current real things. Similarly, you will need to show learners the importance of developing ideas by exploring different alternatives before settling on a final idea. Encourage them to use idea development tools such as mind map, sketching or more formal planning lists.

● Teaching the production of reference images generates specific challenges. You need to show learners how to produce top, front and side views to scale. You may find it helpful to give learners a reference from one view and guide them through the process of producing scale drawings from the other two views by measuring the relative position of key features in the first view and transferring them to the others. However, you should not impose a particular drawing method, and learners are not required to draw by hand if they have other skills that they can use, such as knowledge of a vector drawing or 2D CAD package.

● You should teach learners to align images in a graphics package. This is best done by giving learners a set of top, front and side reference views that are not aligned and demonstrating to them how this is done. Depending on the package you are using, you may find it helpful to show learners how to re-colour images so that their models stand out more clearly against them in the viewports. Learners may opt to align their images in the 3D package itself and, so long as the alignment is accurate, they should not be penalised for doing so.

Learning aim C – Develop 3D models for use in a 3D game engine

If this learning aim has not been taught in tandem with learning aim A, then it needs to be taught systematically in a similar way.

- Setting up reference images in the 3D package is a critical part of the modelling process. You should show learners how to use images as background images in viewports and also applied to planes in the scene to create a virtual studio. In the latter case, you should show learners how to hold these reference planes on a separate layer and lock them so that they cannot be moved. In either case, you should show learners how important it is to match the scale in the 3D package to the scale in the engine.

- You will need to teach modelling methods systematically. It can be very useful to give learners small modelling tasks that allow them to practise the skills that they are learning. They might have one task that requires the accurate alignment of primitives, another which concentrates on the movement and scaling of vertices, another which focuses on the manipulation of polygons, and so on.

- You will need to show learners the difference between sub-division smoothing and smoothing groups. Learners sometimes over-use the former, creating inefficient models with large amounts of geometry, and under-use the latter, so that their models have hard edges where they should be smooth and vice versa. You may find it helpful to give learners models that require smoothing as part of your teaching of this content.

- Optimisation of the final mesh is a crucial task to ensure that it is efficient in a game. You should show learners how to look for common problems, such as hidden polygons, which should be deleted, and superfluous geometry from, for example, using multiple height segments on a cylinder when only one is needed. Giving learners inefficient models to optimise may be helpful.

- Mapping is a critical part of the modelling process and you will need to give learners plenty of practice. The different mapping methods can be confusing, unwrapping models can be time consuming and the creation of lightmap UVs on a separate channel adds another layer of complexity. It is a good idea, again, to give learners models through which they can learn these techniques and on which they can practise using them.

- The final set-up of the models in the game engine is the critical test, and learners cannot do well in the assessment if they have models that look good in the 3D package but look poor or do not function properly in the game engine. Import and set-up pathways vary considerably between engines, and you will need to teach whatever workflow and techniques your engine requires. However, the outcomes are common across engines. Models need to have appropriate pivot points, working collision hulls that match their geometry, effectively mapped materials that display correctly and a lightmap that allows them to be lit effectively with pre-computed lighting. You should provide opportunities for learners to practise import and set-up throughout your modelling course rather than leaving it as a separate issue at the very end. You should also encourage learners to be testing their models in the engine from an early stage so that any engine-specific problems can be fixed early on.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 13: Digital Games Production*
- *Unit 34: Game Engines Scripting*
- *Unit 41: 3D Environments*
- *Unit 43: 3D Digital Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Fisher G – *Blender 3D Basics Beginner's Guide*, *Second Edition* (Packt Publishing, 2014) ISBN 9781783984909.
  This book will help learners to understand Blender's unique user interface and get them started to use it.

- Mooney T – *3ds Max Speed Modeling for 3D Artists* (Packt Publishing, 2012) ISBN 9781849692366.
  This is a practical guide to speed modelling.

- Vaughan W – *Digital Modeling* (New Riders, 2011) ISBN 9780321700896.
  This book looks at what it takes to create production-ready models.

Journals

- *3D World* (Future Publishing Limited)
  This journal focuses on all aspects of 3D modelling with tutorials for a range of packages and generic articles.

Websites

Most game engines have substantial documentation, tutorials and forums on their own websites and this is often the most useful place to look for help and resources on specific engines. Similarly, the producers of many 3D packages host forums, tutorials and other useful content on their own websites.

- http://www.3dbuzz.com/
  A video tutorial site with a range of free and paid for material, covering several major engines and a range of modelling packages.

- http://www.3dtotal.com/
  A specialist 3D site with tutorials, textures and forums.

- http://www.polycount.com/
  This is created, maintained, and contributed to by professional videogame artists. It has useful forums.

- http://www.textures.com/
  An extensive collection of textures, including tiling textures, but mostly diffuse only.

Unit 41: 3D Environments

Delivery guidance

Approaching the unit

This unit is a practical introduction to the work of an environment artist, and the emphasis throughout is on working with the world building tools of a 3D engine in tandem with a graphics package which learners must use to produce exciting 3D environments.

Learners will need access to existing environments, textures and materials throughout the unit. Firstly, they should learn about them before thinking about how to make their own. This existing work serves as both an inspiration for learners' own work and as an aspirational target; learners need to make their own world and materials consistent with any assets from the engine that they choose to use.

Delivering the learning aims

A major consideration for the entire unit is the choice of game engine. The content of the unit has been written so that it can be taught using any of the currently most popular engines. If you choose a niche engine, you will need to be sure that you can deliver the content of the unit through it. Your engine choice will almost certainly commit you to either a conventional materials set-up (diffuse, specular, gloss, normal) or a physically based shading set-up (albedo, roughness, metalness, normal). It is important that learners understand both, but, unless you have access to multiple engines, you will probably have to teach one of them using a lecture approach rather than through practical examples.

Learning aim A introduces learners to the different elements of a game engine used to construct a 3D environment and to the different types of maps and materials used on surfaces and meshes in that environment. It would be extremely beneficial for learners to analyse existing environments and materials. Many engines ship with some content, many have marketplaces with some free content, and community-generated content is also available, although you will need to vet this carefully to make sure that it is appropriate.

Learning aim B moves on to looking at designing a 3D game environment and involves planning separately for both the materials and the environment. The specification has an extensive list of planning methods and considerations and you should cover these with learners, although there is no expectation that they will use them all. You should give students a variety of practice planning tasks so that they have had some practical experience of what is required and what works best for them before they set about the assessment. This is especially true of how they will balance out verbal and visual planning and design methods.

Learning aim C covers the practical creation of learners' own environments. You may wish to teach this separately, or in tandem with the content for learning aim A. The latter approach means that you can teach learners about engine features and textures while they are practising how to use them. This approach gives you flexibility in the order of assignments: you could assess learning aim A before or after the completion of learning aim C. One advantage of assessing learning aim C first is that learners can draw on their own work when discussing examples for learning aim A.

If there are local opportunities, you could involve employers in the delivery of this unit (guest speakers or visits to studios or suitable exhibitions). This will also help learners to consider what careers/areas of study that they would like to progress to.

Learning aim	Key content areas	Recommended assessment approach
A Understand 3D game environments	**A1** Components of 3D game environments **A2** Texture and map types	A report or presentation which examines the different components of 3D game environments and the texture and map types used in the 3D game environments.
B Design a 3D game environment	**B1** Design the 3D game environment **B2** Design graphics for the 3D game environment	Scale plans for the 3D environment. A list of maps, textures, photographs and permissions needing graphics planning, e.g. sketches, descriptions, mood boards.
C Produce a 3D game environment in a 3D game engine	**C1** Produce graphics for the 3D game environment **C2** Produce the 3D game environment	Separate files of all graphics created, including original photographs and details of any downloaded assets used with documented permissions. Finished 3D environment in the authoring software. Record of game engine features used.

Assessment guidance

The recommended assessment approach for learning aim A is a report or presentation, but you can use any method or methods that allow learners to independently show their understanding in such a way that it can be subsequently demonstrated to a third party. Presentations should be videoed, for example, or learners should record commentary for the slides. There is a mass of information about engines and materials available online so you should warn learners about plagiarism and you will need to be vigilant.

Learning aim B has a considerable variety of acceptable assessment evidence. You will need to be clear with learners about the essential elements of the evidence, especially for distinction. These are an accurate scale design with dimensions, a comprehensive list of assets and permissions (if appropriate), and a comprehensive vision of the environment and graphics delivered through a combination of visual and verbal means. For distinction, the specification guidance requires a minimum of a tiling material, a material to fit the UV layout of an existing mesh, a decal texture and a particle texture.

When assessing the evidence for learning aim C you will need to judge how learners have used engine features and so it is essential that you have the engine and graphics files and something documenting what learners have done, rather than just screenshots of the final environment.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Full details for the assignment and scenario can be found in the relevant qualification specification.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 41: 3D Environments

Introduction

You could begin by looking at a range of 3D environments. Some of these should be using your chosen game engine but, if your resources allow, you could also look at commercial games on a variety of platforms. The core of this unit is environment art, and learners need to have a sense of how textures in the environment and features of the engine's level editor work together to create a compelling sense of place. Access to commercial game studios can be difficult to negotiate, but seeing the work of environment artists in a studio or arranging for an artist to visit the learners would be another excellent introduction, if the opportunity is available.

Learning aim A – Understand 3D game environments

This learning aim could be delivered in tandem with the teaching for learning aim C (or separately, if you prefer). Both require a systematic approach to the content and plenty of examples that learners can explore and discuss.

- You should deliver this content practically. You should show learners the different features of the engine and the different types of texture, maps and materials. For example, learners will best achieve an understanding of how normal maps use the red and green channels of the texture to create the angle of the surface normal by seeing how they are created and what they do in a game.

- You may also want to create your own environments to teach aspects of the content. For example, you could help learners understand the effects of lighting by designing a small, unlit environment that can be lit by the full variety of lights available in the engine, so that learners gain hands-on experience of the effects of all of them in a specific context.

- You should look at the game environment components separately so that learners gain an understanding of what they are and how they work. For example, the study of particle systems requires some analysis of a range of existing particle systems that use both sprites and meshes and which are both constant and triggered. However, it is also important that you move on to analyse complete games or levels and how effectively the components work together to create convincing environments.

- You should approach texture and map types in the same way. A useful approach is to start with individual materials and then to move on to look at the contribution of the map and texture types to the overall effect. You could then look at how different materials, and different types of materials, combine in a specific environment. For example, one interesting use of decals is to apply a single decal to two different surfaces with different materials to create a visual coherence that hides the artificial nature of separate surfaces in the engine.

- In particular, learners should consider the ways in which their research will inform their own productions in the next learning aim.

Learning aim B – Design a 3D game environment

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of 3D game environments that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Designing an environment is a relatively personal process that requires some sort of objective outcome. You should encourage learners to experiment with design processes to find what is most productive for them, and, at the same time, you should make it clear that the final outcome should be usable by someone else to achieve the same vision. Some learners may plan using mostly visual techniques, and some learners may plan using mainly verbal techniques but you should teach all learners that they need to include both elements in their planning and ensure that this is evident in their work.

- Creating scale plans of a 3D environment needs specific practice. Environment plans can be created on paper, but some learners find it difficult to visualise 3D when working in 2D. It may, therefore, be better for learners to plan using a 3D prototyping tool, such as a modelling package or even by roughing out an environment in the engine. Some learners may even want to build a design using toy construction blocks. Whichever methods you choose to teach, you will need to explain carefully to learners how these can be turned into a scale design with dimensions. For example, a learner might need to photograph a construction block model from multiple angles and at various stages of construction before thoroughly annotating the final pictures.

- Planning a material using the UV layout of a mesh can also require specific practice, and learners should have some experience of seeing how their designs work when actually applied to a 3D model. UV layouts can be simple, but it is important for learners to practise with layouts that are different from those they will be using for the assessment. You will need to give learners the meshes and UV layouts that you expect them to use (unless this unit is combined with the 3D modelling unit).

- Teaching the planning of graphics also presents challenges. You should teach learners that a consistent graphic style is important. The library assets they choose should look right with each other and the graphics they make must be consistent with them. Like the environment generally, you will need to teach the variety of planning methods, but learners should select the ones that are most appropriate for them.

- It is particularly important that you teach learners how you will apply the grading criteria for this learning aim. Distinction planning is comprehensive, and the guidance explains that this means that any other reader should have an unequivocal vision of what the final product will be like. This could be achieved through careful and detailed drawings with a short, spoken commentary, or it might be achieved through a mood board of images sourced from the internet with an extensive written explanation of what this means for the final product. The planning method is a very personal choice for the learner, but the outcome must meet the grading criteria.

Learning aim C – Produce a 3D game environment in a 3D game engine

If you have not delivered this learning aim in tandem with learning aim A, then it needs to be taught systematically in a similar way.

- You should teach the production of textures and materials systematically. You should teach the role of the different map types clearly and learners need to be able to import the textures they create into the engine from the start so that they can see how they combine in a material to create an overall effect. Learners' automatic tendency is to concentrate on the diffuse/albedo maps and you will need to show them that surfaces such as metallic panels rely at least as much on the specular/roughness and normal maps.

- You should pay particular attention to the creation of normal maps. All normal map tools will create a normal map from a diffuse/albedo map, but you should show learners how to create a normal map from a greyscale template, especially for low-frequency details such as the panel structure of a door. Some normal map tools

have pre-sets that will emphasise these low-frequency details over high-frequency detail such as wood grain. However, you should teach learners how to do this manually by overlaying the high-frequency layer, removing the blue channel and controlling the opacity, or, alternatively, by repeated overlaying and blurring of the base normal map.

- You should also teach the tools in the graphics package systematically: learners need to know how to use brushes, layers, filters, blend modes, etc. Tiling methods need special care. The basics of duplicating a texture, offsetting and removing the seams are fairly straightforward, but other considerations are not. You should teach learners to be wary of obvious repeated details that will show up when the material is repeated ten times in the engine. Over-uniformity can also be a problem and you should teach learners about the role of macro textures in mitigating this. Tiling-patterned materials such as bricks and diamond plate also require care, and you should show learners how to set up patterns so that they will tile effectively.

- You should show learners how to utilise the different elements of your chosen game engine one at a time. A helpful approach here is to have specific tasks that learners work through together and an ongoing practice environment to which learners can add. For example, you might give learners a very simple environment and show them how to animate doors and lifts in it before they try to extend the same thing in their ongoing environment. This has the advantage of allowing learners to make plenty of mistakes and get regular formative feedback before attempting the final assessment. It also allows learners to see whether ideas that were good separately combine effectively to create a cohesive whole.

- Distinction learners need to be proficient in their use of game engine features. You should explore these features in detail. For example, all learners should be able to add a pre-defined particle system to a game. You need to show distinction learners how to create their own textures for particle systems, how to set up their own particle systems and how to control them in game so that they are triggered by particular events and linked to other features (for example making sure that fire will injure the player).

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 13: Digital Games Production*
- *Unit 34: Game Engines Scripting*
- *Unit 40: 3D Modelling*
- *Unit 43: 3D Digital Animation*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Ahearn L – *3D Game Textures: Create Professional Game Art Using Photoshop, Third Edition* (Focal Press, 2011) ISBN 9780240820774.
  This book covers how to create your own unique textures and shaders.

- Ahearn L – *3D Game Environments: Create Professional 3D Game Worlds* (Focal Press, 2008) ISBN 9780240808956.
  This is a comprehensive guide with detailed tutorial on creating 3D models.

- De Jong S – *The Hows and Whys Of Level Design, Second edition* (Sjoerd De Jong, 2008) ASIN: B002TS7MJI.
  This is a good introductory text.

Websites

Most engines have substantial documentation, tutorials and forums on their own websites and this is often the most useful place to look for help and resources. The websites listed below are those that do not specialise in any particular engine.

- http://www.3dbuzz.com/
  This is a video tutorial site with a range of free and paid for material, covering several major engines and a range of engine independent skills.

- http://gamasutra.com/
  Gamasutra, run by UBM TechWeb, focuses on all aspects of game development including art and design, with updates, features and blogs.

- https://www.mapcore.org/
  This is the website of the MapCore game development community. It contains forums and articles that are engine independent.

Unit 42: Games Testing

Delivery guidance

Approaching the unit

A key element of this unit is testing games to find errors and then reporting on those errors. Learners could realistically be able to get an entry level quality assurance (QA) position in the industry after completing this unit, and it is essential that you give them as much practice as possible in finding bugs. A QA tester will be valued for their ability to find less obvious mistakes and to clearly explain what they have found. It is therefore important that you develop these key skills in your learners.

Delivering the learning aims

There are two major considerations before undertaking this unit. The first is the source of the 'buggy' games that you will use for both teaching and assessment. One approach is to link this with *Unit 34: Game Engine Scripting* so that learners are each other's QA testers. This has considerable advantages, but also presents challenges in making sure that learners test games with enough errors to stretch them, but not so many that it is difficult to test at all, or where all the errors are basic and obvious. An alternative approach is to produce simple game elements yourself with deliberate errors. This gives you great control over the material learners use, but can be time-consuming. You may want to use a combination of both.

The second major consideration is the choice of bug-tracking system to use. There is a range of open-source and paid for products produced by third parties. These have the obvious advantage of being close to the kind of system that learners may encounter in industry, and experience of such a system will be an advantage if learners are applying for QA positions. However, it may be that constraints in your centre make it difficult to run a third party product. In this case, you would ideally set up something using the centre's virtual learning environment or intranet that mimics the way a third party product works. If this is also not feasible it is also possible to deliver this unit using a paper-based tracking system where reports are updated by hand, but this presents its own challenges in terms of managing evidence and is vocationally much less valid.

Learning aim A gives learners a core understanding of the gaming sector and the process of developing games. You should teach this in a practical, hands-on way as much as possible with a range of platforms, control methods, errors etc. These can come from a wide range of sources depending on what is available to you, including published games and your own scripted examples.

The error types can be taught in tandem with the content for learning aim B, if you so wish. One consequence of this approach is that it gives you flexibility in the order of assignments, so you could assess learning aim A before or after the completion of learning aim B. One advantage of assessing learning aim B first is that learners can draw on their own work when discussing examples for learning aim A.

Learning aim B involves testing a game and reporting on the errors in it. Whatever approach you take to the provision of games and the bug-tracking

system, it is critical that you teach learners how to look for errors systematically, and to search for errors that only become apparent when the player attempts to do something unexpected. Using a bug-tracking system will be unfamiliar to learners, and they will need plenty of practice with it before attempting the assessment.

For learning aim C, learners need to create their own test cases. Decision tables will appear daunting, and the accurate use of spreadsheets may be novel for many leaners. You will need to model these processes thoroughly and give learners plenty of opportunity to practise before they undertake the assessment.

Learning aim	Key content areas	Recommended assessment approach
A Understand quality assurance in the games industry	**A1** Aspects of the gaming sector **A2** Quality Assurance	A report or presentation outlining the aspects of the games sector and game testing.
B Explore playtesting of games	**B1** Test a game using a bug-tracking system	Completed bug reports on a bug-tracking system, including regression-testing bug fixes.
C Develop test cases for testing games	**C1** Design test cases **C2** Run and record test cases	Written description of test cases, including decision tables. Completed test cases spreadsheet.

Assessment guidance

The recommended assessment approach for learning aim A is a report or presentation, but you can use any method or methods that allow learners to show independently their understanding in such a way that it can be demonstrated subsequently to a third party. Presentations should be videoed, for example, or learners should record commentary for the slides. There is a mass of information about the games sector available online: you should explicitly warn learners about plagiarism and you will need to be particularly vigilant.

Learners should use real examples as much as possible for learning aim A, which can come from any source. For example, learners might use their experience of developing a prototype for their own game and doing their own ad hoc testing during the development process. Some of the content requires examples from industry, and these can be difficult to come by. If absolutely necessary, learners may use hypothetical examples, but you should make it clear that this is a last resort.

Learning aim B has very specific requirements in terms of the evidence required: the bug reports, including documentation of the regression testing. You need to consider carefully what game(s) learners will test. In particular, it is best if learners do not have the same game to test as it will be difficult to ensure the integrity of the assessment.

The general expectation for the assessment of bug reports is clear: for the better grades, learners must categorise and process a greater variety of errors, and report them in greater depth and detail. However, you will need to interpret this carefully in the context of the approach to assessment you take. If learners are testing each other's games, you will need to have regard to the variation in the games that learners were given to test: you are assessing the tester, not the developer. If learners are given a game to test for this unit that is not fit for purpose and will not allow them to produce evidence which can be assessed against all the grading criteria, then you will need to intervene to make sure that they are given a game that will.

Learning aim C has similarly specific evidence requirements: the written description of the test cases and the completed spreadsheet. Alternative assessment methods, such as a spoken description of test cases, are not appropriate here. Again, it is best if learners do not have the same game to test, or at least the same aspect or part of the same game, as it will be difficult to ensure the integrity of the assessment.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 42: Games Testing

Introduction

You could begin by looking at a range of games with errors in them and asking learners to share their own experiences. Many commercial games ship with some kind of error and learners may have been part of an open beta programme. Access to commercial game studios can be difficult to negotiate, but seeing the work of QA testers in a studio or having someone visit the learners would be another excellent introduction, if the opportunity is available. Unlike some aspects of game production, the QA department of a studio has something to gain from allowing learners to participate in the testing process and this is an avenue you should explore.

Learning aim A – Understand quality assurance in the games industry

The teaching of part of this learning aim can be done in tandem with the teaching for learning aim B, or be carried out separately. Both approaches require a systematic approach to the content and plenty of examples that learners can explore and discuss.

- You should deliver the content for A1 practically as much as possible. There is obviously a limit to the amount of equipment you will be able to purchase, but you should give learners hands-on experience where you can. Use your learners as a resource – many of them will have mobile devices or handheld consoles, for example, and may be only too happy to be asked to produce them during a lesson.

- Your learners' pre-existing knowledge is also an enormous resource for this learning aim and, between them, they are likely to have considerable experience of a wide range of platforms, control systems etc. However, you need to be careful not to assume – any individual learner may have quite a narrow range of gaming experience even if they are an avid gamer, and it is important learners understand how wide and varied the industry is.

- When you teach the development process for games, you need to focus on their significance for the QA process. Learners need to understand how QA fits in with the agile development methods widely used in the industry, and the importance of continual QA during iterative development rather than seeing it as something that happens towards the end of production.

- The teaching of the error types, severity grading and the concept of reproducibility are critical as it underpins the practical testing of games in learning aim B. You will need to give learners practical examples of the error types that you can analyse together to discuss their proper categorisation and severity grading.

- In particular, learners should consider the ways in which their research will inform their own testing in the next learning aim.

Learning aim B – Explore playtesting of games

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of testing techniques that they carried out in the first learning aim in order to inform their own tests. As such, you should take a holistic approach to the delivery of these learning aims.

It is important not to underestimate the amount of teaching required for this learning aim. You need to teach learners how to look for errors and how to report them.

- You need to ensure that learners are absolutely clear about the different types of errors and how to search for them. You should give learners games or game elements with errors and discuss the categorisation of the errors involved. You should also teach learners to consider the error types and encourage them to use a checklist of things to run through when testing a game – it is easy for learners to overlook the functioning of the user interface if they get caught up in the gameplay, for example.

- You need to teach learners how to look for less obvious errors. Developers' own ad hoc testing often concentrates on whether a game functions as it should if the player behaves as expected. It is the job of QA to check that the game functions properly when players behave unexpectedly. Learners do not have to develop test cases for this learning aim, but you should teach them to think through what should happen in all circumstances, and then test what happens if, for example, the player backtracks, explores boundaries away from their objective, or quits and re-starts in unpredictable ways.

- Reporting errors clearly is a critical skill in QA. Testers need to be completely clear about the exact nature of the problem and the exact steps needed for it to be reproduced. If an error appears intermittent, the tester needs to explore further to find out exactly what is triggering it. The bug reports themselves need to be completely clear and unambiguous, with as much detail as possible to help the developer generate a fix, but without being unnecessarily wordy. You need to model with students how to write these reports and give them as much opportunity to practise as you can.

- You also need to teach regression testing carefully. On one level, this is a simple case of checking that the erroneous behaviour no longer occurs by following the steps to reproduce the bug set out in the original bug report. However, thorough regression testing will also be looking for other errors that may have been introduced, and you should encourage learners to develop this awareness.

Learning aim C – Develop test cases for testing games

This learning aim also requires as many opportunities to practise as possible.

- You should start the teaching of this unit with simple test cases that learners can describe and run. You could look at some basic game documentation, develop a test case together and run it, before asking learners to develop and run their own. It is probably best not to introduce recording spreadsheets at this initial stage.

- From simple test cases you should move to decision tables. These can be initially intimidating so it is best to start with a small range of condition and action stubs before populating the condition and action entries, and then going on to write the associated test cases. Learners could then go on to practise their own.

- From here, you should move to more complex decision tables. Learners need to understand what a complete set of cases might involve. For example, if an avatar is controlled by WASD on the keyboard that might seem simple, but what happens if the player presses two or more keys at once? Or accidentally presses another key on the keyboard at the same time? Or presses a key to move in one direction, then presses a second key to move in another direction, then releases the second key while keeping the first pressed down? It is in these unexpected scenarios that many errors can be generated and this is what thorough test cases will check. Action stubs may be similarly thought through – movement of an avatar again does not just involve moving the avatar, but controlling sound, animation and other features, as well as possibly changing depending on the location in the game environment or power-ups/penalties in use at the time.

- There is likely to be a considerable spread of pre-existing expertise in spreadsheet use among your learners. However, the content has very specific requirements

about what is required and you will need to show all of your learners exactly what this is and how to use features such as functions and conditional formatting to meet these requirements. Learners again will need models and an opportunity to practise but you must not give them a template for the assessment as they have to design their own. Also note that you should do what you can to ensure that learners cannot simply adapt a model they have been given.

● The actual running of the test cases and completion of the records is the most straightforward part of this unit, but you will still need to give learners the opportunity to practise this, and you should stress to them the importance of thoroughness and accuracy.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 13: Digital Games Production*

- *Unit 34: Game Engine Scripting*.

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Bach J, Kaner C and Pettichord B – *Lessons Learned in Software Testing: A Context Driven Approach* (John Wiley & Sons, 2002) ISBN 9780471081128. This book covers the most common mistakes in testing software.

- Bryant R and Schultz CP *Game Testing All in One, Second Edition* (Mercury Learning & Information, 2011) ISBN 9781936420162. A comprehensive resource that takes learners through test design and other QA methods.

- Crispin L and Gregory J – *Agile Testing: A Practical Guide for Testers and Agile Teams* (Addison Wesley, 2008) ISBN 9780321534460. This covers how to use the agile testing quadrants to identify what testing is needed, who should do it, and what tools might help.

- Crispin L and Gregory J – *More Agile Testing: Learning Journeys for the Whole Team* (Addison Wesley, 2014) ISBN 9780321967053. This looks at key issues that agile testers need to explore and understand.

- Levy L and Novak J – *Game Development Essentials: Game Testing and QA* (Cengage Learning, Inc., 2009) ISBN 9780840031099. This book explains the history of testing, basic and advanced techniques, educational background, and available online resources for testing.

Journals

- *Develop* (New Bay Media Limited) This focuses on all aspects of game development including QA.

- *MCV* (New Bay Media Limited) The magazine for the retail games industry, which covers current developments in the gaming sector.

Websites

- http://gamasutra.com/
  Gamasutra, run by UBM TechWeb, focuses on all aspects of game development including QA, with updates, features and blogs.

- http://www.gamesindustry.biz/
  Run by the Gamer Network, this covers a variety of games industry news.

- http://softwaretestingfundamentals.com/
  This is a non-games-specific site with information on a wide range of software testing issues.

- http://testology.co.uk/
  Testology provide QA services to the game industry. Their website has some general information on QA, and the Jobs section has, at the time of writing, a buggy game element demo that would work well as an introduction to this unit.

Unit 43: 3D Digital Animation

Delivery guidance

Approaching the unit

This unit develops learners' understanding not only of the purposes and techniques of 3D digital animation, but the development of 3D animation from the pre-digital era to the present day. You should develop learners' appreciation of a wide range of uses across different media sectors, and a range of different styles of 3D animation used to appeal to different audiences. Give learners opportunities to examine how techniques have developed and been applied to professional contexts. Aim to show learners 3D animations from as wide a spectrum of professional work as possible, including pre-digital and early digital examples.

To prepare learners for the practical elements of this unit, discussions should cover topics relating to the technical considerations of digital 3D animation such as file size and poly count. Short, practical tasks will give learners opportunities to develop skills in the use of 3D digital animation software, and may build on skills learned in other units, for example *Unit 40: 3D Modelling*.

The assignments you set will allow learners to evaluate detailed examples of digital 3D animation, to discuss the characteristics and development of techniques, and to evaluate their effectiveness in fulfilling different purposes. Learners will build on their theoretical appreciation of digital 3D animation by developing a creative approach to experimentation with 3D digital animation tools for a defined purpose, for example to use as a narrative animation within a music video or game, or as an ident for television. The assignments could be undertaken as a live project with industry, if a suitable client is available.

Learners will need to develop ideas for, and produce, a final 3D animated sequence and justify the creative and technical choices they have made.

Delivering the learning aims

Begin learning aim A by introducing learners to a wide range of professional examples, with an emphasis on the development of techniques. Compare contemporary examples of 3D animation for a particular genre with early digital or pre-digital animation in a similar style. You should aim to show examples of animations for different products aimed at different audiences.

Learners need to research their own contemporary examples drawn from different media sectors (e.g. television, games and film). They should discuss the examples in relation to their characteristics, the development of the techniques used, technical constraints, and their effectiveness in fulfilling their purpose.

Learning aims B and C are likely to follow the same theme, with learning aim B focusing on generating ideas for the final product, which will be created in learning aim C.

Hold a series of workshops so that learners develop their skills with different techniques in order to produce different styles of 3D animation for different genres and audiences. The tasks you set may use assets produced in conjunction

with another unit, for example *Unit 40: 3D Modelling*. Initial tasks could use simple examples of professional work (for example *Luxo Jr*. (1986)) for learners to use as a basis for replicating the techniques. At this stage, assets (for example, a model of a desk lamp), may be supplied, or sourced by learners. As learners' skills develop, give them more freedom to experiment with combining techniques and developing their own ideas for animations on a theme.

Before starting any assessed work, you should be confident that learners are fully competent in the use of a wide range of 3D animation tools and techniques. An ongoing learner log should be used to record and evaluate the ideas generated.

Base your delivery of learning aim C on the work generated in the tasks for learning aim B. Tutor-led sessions should familiarise learners with all the essential elements of planning and pre-production for a 3D digital animation, from ideas generation and storyboards to setting up timelines and managing the assets. Ideally, the 3D model assets used will be generated by learners as part of the tasks or assessment work for *Unit 40: 3D Modelling*. For a larger production, learners may work in groups to produce a range of assets and use them to animate a different scene each, provided each learner's individual contribution to the pre-production and animation is clear and sufficient. Before starting any assessed work, you should be confident that learners are fully competent at managing the production processes and are prepared for the assignment. Workshops should also ensure that learners are familiar with rendering the finished animations in appropriate formats.

An ongoing learner log should be used to justify the selection of final ideas with reference to the influence of professional work, the creative choices made when developing their own work and the audience response.

Learning aim	Key content areas	Recommended assessment approach
A Examine the purposes and techniques of 3D animation used in the media industry	**A1** Uses of digital 3D animation in different media sectors **A2** The development of digital 3D animation **A3** The technical considerations of digital 3D animation	A report that examines traditional and digital examples of the purposes, techniques and technical characteristics of 3D animation.
B Explore the use of 3D animation tools and techniques for a specific media product	**B1** Digital 3D animation tools and techniques	Two fully developed ideas for a digital 3D animation demonstrating the use of different tools and techniques, supported by an annotated ideas-development portfolio and including initial ideas and experimentation.
C Create a digital 3D animation for a specific media purpose	**C1** Planning a digital 3D animation **C2** Producing a digital 3D animation **C3** Evaluating a digital 3D animation	A planning and production log, including a schedule, asset management and evaluating the creative and technical choices made throughout. A final 3D animation published for a specific media purpose.

Assessment guidance

This unit is internally assessed, using two or three assignments which cover all the learning aims and assessment criteria. There are three suggested assignments for this unit, although assignments covering learning aims B and C are linked and follow on from each other, so could be delivered as a single assignment if preferred.

The assessment for learning aim A could be done via a number of different means, such as presentations to the peer group, reports, blogs etc. Learners should be encouraged to plan any presentations well in advance and to arrange for any special equipment or props that they will require. For merit standard, learners will need to use detailed and specific examples of how digital 3D animation techniques are applied to different purposes and will refer to aesthetic, audience and technical considerations in their analysis. Distinction level learners will need to make detailed comparisons between different techniques and evaluate their suitability for purpose.

Practical work for learning aims B and C should be exported in an appropriate format, and could be supplied by the learner as standalone files, or uploaded to a web platform such as YouTube. The final animation should be accompanied by development work, experimentation, and learner development logs that document the progress of the assignment and evaluate the creative and technical choices made throughout the process. All learners must independently generate individual evidence that can be authenticated. Merit level ideas generation will show how experimentation with different tools has been used to develop the ideas and the final product will be complete, fit for purpose and free from all but minor flaws. Merit standard learners must evaluate the creative choices made. For distinction standard, learners will need to demonstrate a greater degree of experimentation, combining techniques to good effect. Their production planning will need to be more thorough and detailed. They should evaluate the creative choices, making reference to historic and contemporary influences, and justify these choices and their impact on the suitability of the final animation for its intended purpose.

Although there is flexibility in the timing, assessment for each learning aim should take place after all the relevant content has been delivered. It is important that learners are given sufficient opportunities to acquire the necessary skills before being given each assignment. You should not use the delivery of the unit as a vehicle to teach the content.

Getting started

This gives you a starting place for one way of delivering the unit, based around the recommended assessment approach in the specification.

Unit 43: 3D Digital Animation

Introduction

To engage learners, introduce the unit by showing the class a number of different styles of both digital and pre-digital 3D animation from different time periods and discussing them. Using examples like *Tron* (1982), the morphing sequence from *Willow* (1988), Harryhausen's *Jason and the Argonauts* (1963) and *Clash of the Titans* (1981). You might ask learners to identify the digital and non-digital examples. Learners could then try to put the clips into chronological order, or assign each clip to the decade in which it was produced. Learners may be encouraged to compare digital and pre-digital examples, such as the medusa fight scenes in the 1981 *Clash of the Titans* and its 2010 remake. Children's contemporary 3D digital animated films, such as Disney's *Frozen* (2013), can be compared with examples of contemporary children's animations using stop motion, such as CBBC's *Scream Street* (2015).

Follow this by giving an overview of the unit, discussing the three learning aims. Give learners a clear idea of the intended delivery methods and how they will be assessed. At this stage, learners could be encouraged to attend any appropriate exhibitions, screenings or directed to appropriate library resources for independent study.

Learning aim A – Examine the purposes and techniques of 3D animation used in the media industry

Learning aim A should be delivered first so as to give learners an underpinning understanding of the topic.

- An introduction to learning aim A should discuss diverse uses of 3D digital animation across a range of media sectors including film, television and digital games. These should include animations aimed at a range of different audiences, and vary in complexity from simple television idents to complex CGI composited with live action.

- Lessons should then go on to discuss the development of 3D animation from pre-digital, through wireframe examples in the 1970s and early uses of CGI and morphing in the 1980s, to more contemporary examples. While focus should be on the development of digital techniques, learners should be able to understand the development of these techniques and compare them to their predecessors.

- Simple practical tasks can be used to illustrate the theoretical points made and further engage learners, e.g. learners could be shown *Luxo Jr*. (1986) and a workshop could then provide them with assets and skills to replicate the animated desk lamp.

- You should introduce learners to examples of the most up-to-date uses of 3D animation in professional work using motion capture, as well as discussing accessible ways of creating 3D animations using machinima techniques, such as those used by Rooster Teeth in the creation of the *Red vs Blue* web series of animations.

- Workshop sessions should be used to introduce learners to the different professional software used for 3D digital animation and the different considerations and constraints for different products in different media sectors. For example, show learners that 3D animations for the film industry will generally be much more detailed and have a higher poly count than those for use in games, due to constraints of animated elements, such as particle systems often having to render in real time in a game environment.

- Once you are sure that learners are fully prepared with the knowledge necessary to complete the assignment, introduce it and go through the different stages of the assignment brief with them.

- In particular, learners should consider the ways in which their research will inform their own 3D animations in the next learning aim.

Learning aim B – Explore the use of 3D animation tools and techniques for a specific media product

Learning aim B follows on from learning aim A in that learners will need to draw on the analyses of 3D animation techniques that they carried out in the first learning aim in order to inform their own productions. As such, you should take a holistic approach to the delivery of these learning aims.

Learning aims B and C are likely to follow the same theme. Learning aim B focuses on building skills and experimenting with animation tools in order to develop ideas for the final animated sequence that learners will generate in learning aim C. Learners are likely to work independently on learning aim B, rather than in groups.

- Deliver this learning aim in practical workshops. In the early stages, tasks should be simple and prescriptive and could be linked to examples given in learning aim A, e.g. *Luxo Jr*. Deliver instructional workshops supported by video tutorials or guide learners to replicate a short animation using a specific technique by following your directions, written instructions or video tutorials.

- Once the basic techniques have been learned, encourage learners to experiment. They could source 3D assets to animate from sites such as Turbosquid or use assets they created themselves within *Unit 40: 3D Modelling*.

- Workshops should be used to develop more complex animation skills, such as those relating to biped character walk cycles.

- As learners develop their skills and their confidence grows, make the tasks more sophisticated. Encourage learners to generate a range of ideas via thumbnail sketches, and then develop these into storyboards to create animated sequences. Although learners will generate ideas and images individually, ask them to discuss their ideas in pairs or small groups or to present them to the class. Make sure that they are able to justify the selection of their ideas and techniques.

- Present a session on rendering for different purposes and output formats, and give learners opportunities practically to explore different image settings.

- Once you are sure that learners are fully prepared, introduce the assignment and go through the different stages of the assignment brief with them.

Learning aim C – Create a digital 3D animation for a specific media purpose

Your delivery of learning aim C is likely to be based closely on the experimental work generated in response to learning aim B.

- To introduce the learning for learning aim C, use a session to present and review basic, but essential, production skills such as setting production milestones, setting up a timeline and managing assets. These skills will be required for the assessment.

- Following on from learning aim B, learners should be able to select appropriate ideas for development and produce detailed storyboards. In selecting ideas, they should be encouraged to consider the target audience and legal and ethical considerations.

- Learners should justify the creative and technical decisions in an ongoing log, with consideration of how they are influenced by contemporary practice. You could use

one session to organise work in small groups that discuss and analyse the creative choices that learners made when they produced experimental work for tasks in learning aim B.

- Once you are sure that learners are fully prepared with the skills necessary to produce a sophisticated final digital 3D animation for a specific media product, you should introduce the assignment and go through the different stages of the assignment brief with them.

Details of links to other BTEC units and qualifications, and to other relevant units/qualifications

Pearson BTEC Level 3 Nationals in Creative Media (NQF):

- *Unit 33: 2D Animation*

- *Unit 37: Visual Effects*

- *Unit 40: 3D Modelling*

- *Unit 41: 3D Environments*.

Resources

In addition to the resources listed below, publishers are likely to produce Pearson-endorsed textbooks that support this unit of the BTEC Nationals in Creative Media. Check the Pearson website (http://qualifications.pearson.com/en/support/published-resources.html) for more information as titles achieve endorsement.

Textbooks

- Beane A – *3D Animation Essentials* (John Wiley & Sons, 2012) ISBN 9781118147481.
  This is a useful overview of the concepts and techniques of 3D digital animation within different media sectors.

- Chandler M and Podwojewski P – *3ds Max Projects* (3DTotal Publishing 2013) ISBN 9781909414051.
  This book has a range of projects, including 3D animation, suitable for use with 3D Max.

- Kerlow I – *The Art of 3D Computer Animation and Effects* (John Wiley & Sons, 2009) ISBN 9780470084908.
  A guide to 3D digital animation production and post-production.

- Rodriguez D – *Animation Methods: The Only Book You'll Ever Need* (CreateSpace Independent Publishing Platform, 2012) ISBN 9781480128354.
  A guide to 3D character animation using Maya.

- Sito T – *Moving Innovation: A History of Computer Animation* (MIT Press, 2015) ISBN 9780262528405.
  A concise history of 3D digital animation.

Journals

- *3D World*, (CreativeBloq)
  The industry magazine for professional digital 3D artists and animators which has a wide range of tutorials.

- *3D Artist Magazine*
  This showcases the work of professional 3D artists and animators with a range of tutorials and industry tips.

- *Computer graphics world*
  This spotlights cutting edge 3D digital animation and latest product developments in the film sector.

Videos

The following all provide useful examples of the development of pre-digital and digital 3D animation (listed chronologically).

- https://www.youtube.com/watch?v=pF_Fi7x93PY
  Jason and the Argonauts Skeleton Battle (1963).

- https://www.youtube.com/watch?v=8X7W-oPhY48
  Clash of the Titans Medusa battle (1981).

- https://www.youtube.com/watch?v=_ReyhCkn9Bg
  Tron trailer (1982).

- https://www.youtube.com/watch?v=6G3O60o5U7w
  Luxo Jr. (1986).

- https://www.youtube.com/watch?v=xY8Rp4GOPag
  Clash of the Titans Medusa battle (2010).

- https://www.youtube.com/watch?v=9BAM9fgV-ts
  Red vs Blue episode 1 (Rooster Teeth). (This may contain language unsuitable for younger learners.)

Websites

- http://www.3dtutorialzone.com/
  Free models and textures plus tutorials for Maya and Blender.

- www.animationmagazine.net
  The website of the US magazine focusing on all aspects of the animation industry.

- https://www.cgtrader.com/
  Free models for use in 3D animations.

- http://www.creativebloq.com/3d-tips/maya-tutorials-1232745
  This has a wide range of tutorials for Maya from modelling through to animation.

- http://www.creativecrash.com/
  Free and purchasable models for use in 3D animations.

- www.digitalartsonline.co.uk/
  Resources, tips, tutorials and a showcase of the work of digital artists and animators.

- http://docs.autodesk.com/3DSMAX/16/ENU/3ds-Max-Tutorials/index.html
  Official Autodesk tutorials for 3D digital animation using 3DSMax.

- http://www.turbosquid.com/
  Free and purchasable models for use in 3D animations.

- www.tutorialized.com/tutorials/3DS-MAX/
  Animation Tutorials for 3D digital animation using 3DSMax.