Pearson BTEC Level 1 Award in 3D Design

Specification

BTEC Specialist qualification

For first teaching September 2010

Issue 2

Edexcel, BTEC and LCCI qualifications

Edexcel, BTEC and LCCI qualifications are awarded by Pearson, the UK's largest awarding body offering academic and vocational qualifications that are globally recognised and benchmarked. For further information, please visit our qualifications website at qualifications.pearson.com. Alternatively, you can get in touch with us using the details on our contact us page at qualifications.pearson.com/contactus

About Pearson

Pearson is the world's leading learning company, with 35,000 employees in more than 70 countries working to help people of all ages to make measurable progress in their lives through learning. We put the learner at the centre of everything we do, because wherever learning flourishes, so do people. Find out more about how we can help you and your learners at qualifications.pearson.com

This specification is Issue 2. Key changes are listed in the summary table on the next page. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson website: qualifications.pearson.com

This qualification was previously known as:

Pearson BTEC Level 1 Award in 3D Design (QCF)
The QN remains the same.

References to third party material made in this specification are made in good faith. Pearson does not endorse, approve or accept responsibility for the content of materials, which may be subject to change, or any opinions expressed therein. (Material may include textbooks, journals, magazines and other publications and websites.)

All information in this specification is correct at time of publication.

ISBN 9781446957813

Summary of Pearson BTEC Level 1 Award in 3D Design specification Issue 2 changes

Summary of changes made between previous issue and this current issue	Page number
All references to QCF have been removed throughout the specification	
Definition of TQT added	1
Definition of sizes of qualifications aligned to TQT	1
TQT value added	4
Guided learning definition updated	11
QCF references removed from unit titles and unit levels in all units	14-46
All references to the following qualifications have been removed from this specification as they are no longer available: Pearson BTEC Level 1 Certificate in 3D Design - 501/0562/0 Pearson BTEC Level 1 Diploma in 3D Design - 501/0589/9 Pearson BTEC Level 2 Award in 3D Design- 501/0557/7 Pearson BTEC Level 2 Certificate in 3D Design - 501/0560/7 Pearson BTEC Level 2 Diploma in 3D Design - 501/0559/0	

Earlier issue(s) show(s) previous changes.
If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

BTEC Specialist qualification title covered by this specification

Pearson BTEC Level 1 Award in 3D Design

Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub. The Skills Funding Agency also publishes a funding catalogue that lists the qualifications available for 19+ funding.

The Qualification Number (QN) should be used by centres when they wish to seek public funding for their learners. Each unit within a qualification will also have a unit code.

The qualification and unit codes will appear on learners' final certification documentation.

The Qualification Number for the qualification in this publication is:

Pearson BTEC Level 1 Award in 3D Design	501/0561/9

This qualification title will appear on learners' certificates. Learners need to be made aware of this when they are recruited by the centre and registered with Pearson.

Welcome to Pearson BTEC Level 1 Award in 3D Design

Focusing on the Pearson BTEC Level 1 Award in 3D Design

This document contains the units and associated guidance for the Pearson BTEC Level 1 Award in 3D Design. This issue retains the previous content for the Level 1 Award in 3D Design.

This qualification is designed to meet a range of different needs. It offers:

- the opportunity to certificate smaller blocks of learning, which are designed to motivate learners and encourage widening participation in education and training
- a course that relates to the particular training and employment patterns in the 3D Design industry
- the opportunity to use a range of teaching methods
- opportunities for learners to develop skills that support career and professional development
- a programme that can enable progression either to higher levels of study or to other courses at the same level of study.

Straightforward to implement, teach and assess

Implementing BTECs couldn't be easier. They are designed to easily fit into your curriculum and can be studied independently or alongside existing qualifications, to suit the interests and aspirations of learners. The clarity of assessment makes grading learner attainment simpler.

Engaging for everyone

Learners of all abilities flourish when they can apply their own knowledge, skills and enthusiasm to a subject. BTEC qualifications make explicit the link between theoretical learning and the world of work by giving learners the opportunity to apply their research, skills and knowledge to work-related contexts and case studies. These applied and practical BTEC approaches give all learners the impetus they need to achieve and the skills they require for workplace or education progression.

Recognition

BTECs are understood and recognised by a large number of organisations in a wide range of sectors. BTEC qualifications are developed with key industry representatives and Sector Skills Councils (SSC) to ensure that they meet employer and learner needs — in this case Creative and Cultural Skills, the Sector Skills Council for crafts, cultural heritage, design, literature, music, performing, and visual arts, the Design Council, and Skillset, the Sector Skills Council for the creative media industries. Many industry and professional bodies offer successful BTEC learners exemptions for their own accredited qualifications.

All you need to get started

To help you off to a flying start, we've developed an enhanced specification that gives you all the information you need to start teaching BTEC. This includes:

- a framework of equivalencies, so you can see how this qualification compares with other Pearson vocational qualifications
- information on rules of combination, structures and quality assurance, so you can deliver the qualification with confidence
- explanations of the content's relationship with the learning outcomes
- guidance on assessment, and what the learner must produce to achieve the unit.

Don't forget that we're always here to offer curriculum and qualification updates, local training and network opportunities, advice, guidance and support.

Contents

What are BTEC Specialist qualifications?

BTEC Specialist qualifications are work-related qualifications available from Entry to Level 3 in a range of sectors. They give learners the knowledge, understanding and skills they need to prepare for employment in a specific occupational area. The qualifications also provide career development opportunities for those already in work. The qualifications may be offered as full-time or part-time courses in schools or colleges. Training centres and employers may also offer these qualifications.

Sizes of Specialist qualifications

For all regulated qualifications, we specify a total number of hours that learners are expected to undertake in order to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.
Within the TQT, we identify the number of Guided Learning Hours (GLH) that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.
As well as guided learning, there may be other required learning that is directed by tutors or assessors. This includes, for example, private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

BTEC Specialist qualifications are available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)
- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)
- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

Key features of the Pearson BTEC Level 1 Award in 3D Design

At Level 1 the focus is on the basic skills and knowledge required to work as a 3D designer.

The Pearson BTEC Level 1 Award in 3D Design has been developed to give learners the opportunity to:

- engage in learning that is relevant to them and which will provide opportunities to develop a range of skills and techniques in 3D design, and the personal skills and attributes essential for successful performance in working life
- achieve a nationally recognised Level 1 vocationally related qualification in 3D design
- possibly progress to employment in a 3D design-related job
- progress to related general and/or vocational qualifications.

National Occupational Standards

Where relevant, Pearson BTEC Level 1 qualifications are designed to provide some of the underpinning knowledge and understanding for the National Occupational Standards (NOS), as well as developing practical skills in preparation for work and possible achievement of NVQs in due course. NOS form the basis of National Vocational Qualifications (NVQs). Pearson BTEC Level 1 qualifications do not purport to deliver occupational competence in the sector, which should be demonstrated in a work context.

Each unit in the specification identifies links to elements of the NOS in *Annexe C*.

The Pearson BTEC Level 1 Awards in 3D Design relates to the following National Occupational Standards:

- **Skillset**
- Photo Imaging
- **Ccskills**
- Crafts
- Design
- Jewellery.

Rules of combination

The rules of combination specify the credits that need to be achieved, through the completion of particular units, for the qualification to be awarded. All accredited qualifications have rules of combination.

Rules of combination for the Pearson BTEC Level 1 Award in 3D Design

When combining units for the Pearson BTEC Level 1 in 3D Design, it is the centre's responsibility to ensure that the following rules of combination are adhered to.

Pearson BTEC Level 1 Award in 3D Design

1. The Total Qualification Time (TQT) for this qualification is 100 hours.
2. The Guided Learning Hours (GLH) for this qualification is 60.
3. Qualification credit value: a minimum of 10 credits.
4. Minimum credit to be achieved at, or above, the level of the qualification: 10 credits.
5. All credits must be achieved from the units listed in this specification.

Pearson BTEC Level 1 Award in 3D Design

The Pearson BTEC Level 1 Award in 3D Design is a 10-credit and 60-guided-learning-hour (GLH) qualification.

To achieve the whole qualification, a learner must successfully complete **10 credits** from the following specialist optional units.

Pearson BTEC Level 1 Award in 3D Design			
Unit	**Specialist optional units**	**Credit**	**Level**
1	3D Design Crafts Processes	10	1
2	3D Design Products	10	1
3	Surface Decoration Materials, Techniques and Processes	10	1
4	Ceramics Materials and Processes	10	1
5	Working to a 3D Brief	10	1

Assessment

All units within this qualification are internally assessed. The qualification is criterion referenced, based on the achievement of all the specified learning outcomes.

Each unit within the qualification has specified assessment criteria and grading criteria which must be used. A summative unit grade can be awarded at pass, merit or distinction:

- To achieve a 'pass' a learner must have successfully completed **all** the assessment criteria
- To achieve a 'merit' a learner must **additionally** have successfully completed **all** the merit grading criteria

To achieve a 'distinction' a learner must **additionally** have successfully completed **all** the distinction grading criteria.

Guidance

The purpose of assessment is to ensure that effective learning has taken place to give learners the opportunity to:

- meet the standard determined by the assessment criteria and
- achieve the learning outcomes.

All the assignments created by centres should be reliable and fit for purpose, and should be built on the unit assessment criteria. Assessment tasks and activities should enable learners to produce valid, sufficient and reliable evidence that relates directly to the specified criteria. Centres should enable learners to produce evidence in a variety of different forms, including performance observation, presentations and posters, along with projects, or time-constrained assessments.

Centres are encouraged to emphasise the practical application of the assessment criteria, providing a realistic scenario for learners to adopt, and making maximum use of practical activities. The creation of assignments that are fit for purpose is vital to achievement and their importance cannot be over-emphasised.

The assessment criteria must be clearly indicated in the assignments briefs. This gives learners focus and helps with internal verification and standardisation processes. It will also help to ensure that learner feedback is specific to the assessment criteria.

When designing assignments briefs, centres are encouraged to identify common topics and themes. A central feature of vocational assessment is that it allows for assessment to be:

- current, ie to reflect the most recent developments and issues
- local, ie to reflect the employment context of the delivering centre
- flexible to reflect learner needs, ie at a time and in a way that matches the learner's requirements so that they can demonstrate achievement.

Qualification grade

Learners who achieve the minimum eligible credit value specified by the rule of combination will achieve the qualification at pass grade.

In the Pearson BTEC Levels 1 Specialist qualifications each unit has a credit value which specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit. This has been based on:

- one credit for those learning outcomes achievable in 10 hours of learning time
- learning time being defined as the time taken by learners at the level of the unit, on average, to complete the learning outcomes of the unit to the standard determined by the assessment criteria
- the credit value of the unit remaining constant regardless of the method of assessment used or the qualification to which it contributes.

Quality assurance of centres

Pearson BTEC Level 1 qualifications provide a flexible structure for learners enabling programmes of varying credits and combining different levels. For the purposes of quality assurance, all individual qualifications and units are considered as a whole.

Centres delivering the Pearson BTEC Level 1 must be committed to ensuring the quality of the units and qualifications they deliver, through effective standardisation of assessors and verification of assessor decisions. Centre quality assurance and assessment is monitored and guaranteed by Pearson.

The Pearson quality assurance processes will involve:

- centre approval for those centres not already recognised as a centre for BTEC qualifications
- approval for the Pearson BTEC Level 1 qualification and units
- **compulsory** Pearson provided training and standardisation for internal verifiers and assessors leading to the accreditation of lead internal verifiers via the OSCA system
- quality review of the centre verification practice
- centre risk assessment by Pearson of overarching processes and quality standards
- remedial training and/or assessment sampling for centres identified through standardisation or risk assessment activities as having inadequate quality, assessment or internal verification processes.

Approval

Centres are required to declare their commitment to ensuring the quality of the programme of learning and providing appropriate assessment opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Centres already holding BTEC approval are able to gain qualification approval online. New centres must complete a centre approval application.

Quality Assurance Guidance

Details of quality assurance for Pearson BTEC Level 1 qualifications are set out in centre guidance which is published on our website (qualifications.pearson.com).

Programme design and delivery

Mode of delivery

Pearson does not normally define the mode of delivery for Pearson BTEC Entry to Level 3 qualifications. Centres are free to offer the qualifications using any mode of delivery (such as full-time, part-time, evening only, distance learning) that meets their learners' needs. Whichever mode of delivery is used, centres must ensure that learners have appropriate access to the resources identified in the specification and to the subject specialists delivering the units. This is particularly important for learners studying for the qualification through open or distance learning.

Learners studying for the qualification on a part-time basis bring with them a wealth of experience that should be utilised to maximum effect by tutors and assessors. The use of assessment evidence drawn from learners' work environments should be encouraged. Those planning the programme should aim to enhance the vocational nature of the qualification by:

- liaising with employers to ensure a course relevant to learners' specific needs
- accessing and using non-confidential data and documents from learners' workplaces
- including sponsoring employers in the delivery of the programme and, where appropriate, in the assessment
- linking with company-based/workplace training programmes
- making full use of the variety of experience of work and life that learners bring to the programme.

Resources

Pearson BTEC Level 1 qualifications are designed to give learners an understanding of the skills needed for specific vocational sectors. Physical resources need to support the delivery of the programme and the assessment of the learning outcomes, and should therefore normally be of industry standard. Staff delivering programmes and conducting the assessments should be familiar with current practice and standards in the sector concerned. Centres will need to meet any specific resource requirements to gain approval from Pearson.

Where specific resources are required these have been indicated in individual units in the *Essential resources* sections.

Delivery approach

It is important that centres develop an approach to teaching and learning that supports the vocational nature of Pearson BTEC Level 1 qualifications and the mode of delivery. Specifications give a balance of practical skill development and knowledge requirements, some of which can be theoretical in nature. Tutors and assessors need to ensure that appropriate links are made between theory and practical application and that the knowledge base is applied to the sector. This requires the development of relevant and up-to-date teaching materials that allow learners to apply their learning to actual events and activity within the sector. Maximum use should be made of learners' experience.

Access and recruitment

Pearson's policy regarding access to its qualifications is that:

- they should be available to everyone who is capable of reaching the required standards
- they should be free from any barriers that restrict access and progression
- there should be equal opportunities for all wishing to access the qualifications.

Centres are required to recruit learners to BTEC qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications and that the qualification will meet their needs. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Pearson's policy on learners with particular requirements.

Centres will need to review the entry profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to a higher level qualification.

Restrictions on learner entry

The Pearson BTEC Level 1 in 3D Design is accredited for learners aged 14 and above.

Access arrangements and special considerations

Pearson's policy on access arrangements and special considerations for BTEC and Edexcel NVQ qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 2010 Equality Act) without compromising the assessment of skills, knowledge, understanding or competence.

Further details are given in the policy document *Access Arrangements and Special Considerations for BTEC and Edexcel NVQ Qualifications*, which can be found on the Pearson website (qualifications.pearson.com). This policy replaces the previous Pearson policy (Assessment of Vocationally Related Qualifications: Regulations and Guidance Relating to Learners with Special Requirements, 2002) concerning learners with particular requirements.

Recognition of Prior Learning

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether a learner can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess and so do not need to develop through a course of learning.

Pearson encourages centres to recognise learners' previous achievements and experiences whether at work, home and at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning.

RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be sufficient, reliable and valid.

Unit format

All units in the Pearson BTEC Level 1 Specialist qualifications have a standard format. The unit format is designed to give guidance on the requirements of the qualification for learners, tutors, assessors and those responsible for monitoring national standards.

Each unit has the following sections.

Unit title

This is the formal title of the unit that will appear on the learner's certificate.

Unit reference number

Each unit is assigned a unit reference number that appears with the unit title on the Register of Regulated Qualifications.

Level

All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors defined by Ofqual, the qualifications regulator.

Credit value

All units have a credit value. The minimum credit value that may be determined for a unit is one, and credits can only be awarded in whole numbers. Learners will be awarded credits for the successful completion of whole units.

Guided learning hours

Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

Unit aim

The aim provides a clear summary of the purpose of the unit and is a succinct statement that summarises the learning outcomes of the unit.

Unit introduction

The unit introduction gives the reader an appreciation of the unit in the vocational setting of the qualification, as well as highlighting the focus of the unit. It gives the reader a snapshot of the unit and the key knowledge, skills and understanding gained while studying the unit. The unit introduction also highlights any links to the appropriate vocational sector by describing how the unit relates to that sector.

Learning outcomes

The learning outcomes of a unit set out what a learner is expected to know, understand or be able to do as the result of a process of learning.

Assessment criteria and grading grid

The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or set of learning outcomes, has been achieved. The learning outcomes and assessment criteria clearly articulate the learning achievement for which the credit will be awarded at the level assigned to the unit.

Unit content

The unit content identifies the breadth of knowledge, skills and understanding needed to design and deliver a programme of learning to achieve each of the learning outcomes. This is informed by the underpinning knowledge and understanding requirements of the related National Occupational Standards (NOS), where relevant. The content provides the range of subject material for the programme of learning and specifies the skills, knowledge and understanding required for achievement of the unit.

Each learning outcome is stated in full and then the key phrases or concepts related to that learning outcome are listed in italics followed by the subsequent range of related topics.

Relationship between content and assessment criteria

The learner should have the opportunity to cover all of the unit content.

It is not a requirement of the unit specification that all of the content is assessed. However, the indicative content will need to be covered in a programme of learning in order for learners to be able to meet the standard determined in the assessment criteria.

Content structure and terminology

The information below shows the unit content is structured and gives the terminology used to explain the different components within the content.

- Learning outcome: this is shown in bold at the beginning of each section of content.
- Italicised sub-heading: it contains a key phrase or concept. This is content which must be covered in the delivery of the unit. Colons mark the end of an italicised sub-heading.

- Elements of content: the elements are in plain text and amplify the sub-heading. The elements must be covered in the delivery of the unit. Semi-colons mark the end of an element.
- Brackets contain amplification of content which must be covered in the delivery of the unit.
- 'eg' is a list of examples, used for indicative amplification of an element (that is, the content specified in this amplification could be covered or could be replaced by other, similar material).

Essential guidance

This section gives tutors additional guidance and amplification to aid understanding and a consistent level of delivery and assessment. It is divided into the following sections.

- *Delivery* – explains the content's relationship to the learning outcomes and offers guidance about possible approaches to delivery. This section is based on the more usual delivery modes but is not intended to rule out alternative approaches.
- *Assessment* – gives amplification about the nature and type of evidence that learners need to produce in order to achieve the unit. This section should be read in conjunction with the assessment criteria.
- *Essential resources* – identifies any specialist resources needed to allow learners to generate the evidence required for each unit. The centre will be asked to ensure that any requirements are in place when it seeks approval from Pearson to offer the qualification.
- *Indicative resources* – gives a list of learner resource material that benchmarks the level of study.

Units

Level 1 Units

Unit 1: 3D Design Crafts Processes

Unit reference number: D/602/0978

Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to develop skills in working with the materials, techniques and processes for 3D design crafts and use these to produce an appropriate final outcome.

Unit introduction

This unit explores working in 3D design crafts. Learners will need to be able to research, explore and develop 3D design crafts, and produce a final 3D design crafts outcome. This involves the learner carrying out research from primary and secondary sources, experimenting and creating ideas from their research findings and communicating how these ideas can be realised. It focuses more on the aesthetic appeal rather than the function of the product but in some areas there is a crossover of craft and function. Ceramics is an obvious area that easily moves between the fine art element and the function of a practical product.

Learning outcomes

To achieve this unit a learner must:

1 Be able to use 3D craft materials, techniques and processes

2 Be able to develop ideas for 3D design crafts

3 Be able to produce 3D design craft outcomes

4 Be able to comment on own work.

Unit content

1 **Be able to use 3D craft materials, techniques and processes**

3D crafts: *eg* jewellery, ceramics, sculpture, textiles

3D crafts materials: working characteristics eg resistant (metals, wood, wood-based products, rigid plastics, glass), non-resistant (plaster, clay, card, paper, lightweight wood, string, soft wire, plastic sheet, fabrics, yarns, fibres)

3D crafts techniques and processes: specialist techniques eg basic clay processes (pinch pots, coil pots, slab pots, thrown ware, mould-making), sculptural processes (carving, shaping, forming), metal processes (cutting, drilling, moulding), textile processes, mixed media work, maquettes, samples; construction techniques eg joining, assembling; finishing

Primary sources: eg first-hand observations, sketches, drawings, built environment, natural forms, own photographs, own interviews, own previous work

Secondary sources: visual references eg images, clippings, buildings, photographs, books, CD ROMs, magazines, journals, photocopies, postcards, leaflets, internet, videos, museums, galleries, work of others, poetry, music

Health and Safety: responsible studio practice; safe use of equipment eg ceramics (knives, cutters, kilns), modelling (sharp tools, rusty objects), textiles (dyes, pins, scissors, sewing machines), adherence to COSHH guidelines for materials eg clay (dust), solvents, glues, glass

2 **Be able to develop ideas for 3D design crafts**

Development of ideas: sources to inform ideas eg primary, secondary, other designers' work, given brief, set theme; development process eg brainstorming, development exercises, roughs, thumbnails, sketches, scale drawings, ideas worksheets, individual notes, group discussion

Experimentation: processes eg manipulation, combining (materials, techniques), surface treatment, sampling, testing; other considerations eg aesthetics, function, fitness for purpose, resources

Professional practitioners: 3D craft designers eg ceramicists, sculptors, textile designers, jewellers, glass makers, metal workers, mixed media designers

Limitations: eg resources, availability, costs, deadline

Presentation of 3D work: considerations eg plinths (construction, proportions), environment, fixings, lighting (natural, artificial), health and safety; final outcomes; development work eg worksheets, study folder, test pieces

3 Be able to produce 3D design craft outcomes

Design process: analyse brief; plan production; research; select appropriate media; develop ideas; develop designs; finished work; evaluate outcomes; review process

Craft production: planning eg production stages, requirements; research eg primary sources, secondary sources; appropriate selection eg materials (traditional, non-traditional, resistant, non-resistant), techniques, processes, final design; professional practice eg meeting design intentions, response to brief, meeting deadlines, safe workshop practice

Secondary sources: eg images, clippings, buildings, photographs, books, work of others, video, internet, poetry, music

Recording sources: eg sketches, drawings, taking photographs, collecting postcards, leaflets, appropriate annotations, notes, photocopies, tape recordings from interviews, internet sources, video, CD ROMs, books, magazines, journals

Design process: analyse brief; plan production; research; apply research; select appropriate media; develop ideas; develop designs

Design development: initial responses; visuals eg preliminary studies, sketches, drawings, colour work, collage, annotations, CAD drawings; 3D constructions eg exploratory models, maquettes, mock-ups, prototypes, samples; technical notes; alternative options

3D product materials: working characteristics eg non-resistant (plaster, clay, card, paper, lightweight wood, string, soft wire, plastic sheet, fabrics, yarns, fibres, glues, adhesives), resistant (metals, wood, wood-based products, rigid plastics); creative potential; limitations; fitness for purpose; aesthetics

3D techniques: eg cutting, carving, shaping, forming, moulding, surface finishing, construction (fabricating, joining, assembling, gluing, welding, riveting, tying), maquettes, modelling, paper engineering for realisation purposes

Final outcomes: eg models, prototypes, support materials

4 Be able to comment on own work

Comment: describe working processes eg successes, disappointments; assess results eg strengths, weaknesses, opportunities for improvement; appropriateness eg techniques, processes, materials, formal elements, making techniques, aesthetics, fitness for purpose; self-evaluation

Assessment criteria and grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 explore a limited selection of 3D design craft materials, techniques and processes	**M1** explore a range of 3D design craft materials, techniques and processes	**D1** confidently explore a wide range of 3D design craft materials, techniques and processes
P2 develop a limited selection of ideas for 3D design crafts	**M2** develop a range of effective ideas for 3D design crafts	**D2** develop a wide range of imaginative ideas for 3D design crafts
P3 produce an appropriate 3D design craft outcome	**M3** produce an effective 3D design craft outcome	**D3** produce an imaginative 3D design craft outcome
P4 identify strengths and weaknesses of own 3D design work.	**M4** comment on the strengths and weaknesses of own 3D design work.	**D4** comment with some detail on the strengths and weaknesses of own 3D design work.

Essential guidance

Delivery

This unit provides learners with the opportunity to work in any area of 3D design crafts such as ceramics, jewellery, sculpture, textiles, or glass. Learners should be encouraged to investigate the creative use of media and materials within a 3D design craft context. The breadth of experience will depend on the centre's resources. Learners will need support and should be encouraged to record all their work in a working sketchbook discussing and developing the results. Learners should focus on developing research, design and making skills and exploring the resources available to them. Learners should be taught how to research and collect information and encouraged to use the work of professionals to inform and inspire. Learners need to be taught how to present 3D work appropriately and advised of relevant health and safety studio practice and appropriate COSHH guidelines.

Assessment

Assessment is through work in the learners' portfolios and final outcomes. The focus is on how well they are able to use 3D materials, techniques and processes to research and record sources and to generate and develop ideas for 3D design outcomes. Evidence might include annotated sketchbooks, ideas worksheets, study folder, notes, 3D samples, test pieces etc. Final outcomes in response to a given brief could be presented as an exhibition. Learners must be able to evaluate their work. This might include a critical self-assessment of finished work through individual or group critiques, ongoing evaluative commentary or a final written evaluation and should evidence use of appropriate terminology.

Employer engagement and vocational contexts

Centres should develop links with practising craftspeople and designers to provide assignments or work experience. A lecture or visit by a designer, craft worker or practitioner local to the centre may provide useful and pertinent information on working practice.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk
- business and finance advice, and local business links – www.businesslink.gov.uk

Creative and Cultural Skills, the Sector Skills Council for design, has launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the design sector, including job descriptions.

Skillset, the Sector Skills Council for creative media production, textiles and fashion, provides details on its website about careers and the industry (www.skillset.org) and has a regularly updated news and events page.

Essential resources

Adequate resources, work and storage space should be provided for learners to explore a range of the materials and techniques identified in this unit. For materials the learners need to work with a variety of fabrics, yarns, threads, clay, wood, light metals etc. The techniques and processes will be those associated with the choice of material. The tools and equipment that will be required will be those associated with the materials, techniques and processes used.

For clay: clay tools, wheels, slip trailers, brushes, kilns etc.

For textiles: scissors, needles, tape measures, looms, sewing machines etc.

For wood: saws, planes, drills, chisels, carving tools, hammers, screwdrivers, sanding machines etc.

For light metals and plastics: saws, snips, files, drills, soldering irons, hammers, vices, pliers, power drills, vacuum former etc.

Learners will need access to information on historical and contemporary professional practice in a design craft context, plus library and internet access. Visits to galleries, museums, exhibitions and working studios are recommended.

Indicative resources

Textbooks

Grillo P J — *Form*, *Function and Design* (Dover Publications, 1975)
ISBN 978-0486201825

Herbert T and Huggins K — *The Decorative Tile* (Phaidon Press Limited, 2000)
ISBN 978- 0714839795

Mills J — *Encyclopaedia of Sculptural Techniques* (B T Batsford Ltd, 2003)
ISBN 978- 0713486546

Powers A — *Nature in Design* (Conran Octopus, 2002) ISBN 978-184091257X

Smith R — *The Artist's Handbook* (Dorling Kindersley, 2003) ISBN 978-0789493365

Terraroli V — *Skira Dictionary of Modern Decorative Arts* (Skira Editore, 2001)
ISBN 978-8884910250

Trow A — *Surface* (RotoVision, 2002) ISBN 978-288046556

Willacy D M — *Craft & Design in Wood* (Nelson Thornes, 1987)
ISBN 978-0748710663

Journals

Artists Newsletter

Crafts

Creative Review

Websites

www.caa.org.uk	Contemporary Applied Arts gallery – exhibitions of contemporary crafts
www.craftscouncil.org.uk	National development agency for contemporary crafts – exhibitions and register of craft workers
www.vam.ac.uk	Victoria and Albert Museum – art and design museum

Unit 2: 3D Design Products

Unit reference number: D/602/0429

Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

This unit aims to develop the skills needed to explore, develop and create products in 3D design.

Unit introduction

Every day products of designers' work surround us from the toothbrush to the car. 3D designers work in industries where their designs are mass-produced and will be seen or used by millions of people.

Three-dimensional products involve the functional side of the design and production of objects.

This unit explores the process of developing design product ideas. Learners will research, explore and develop 3D design product ideas. They will then use their research findings to develop and refine ideas. The learner will then learn how to communicate and promote the design ideas. The learner will also investigate professional 3D-product designers.

Learning outcomes

To achieve this unit a learner must:

1 Be able to explore 3D materials, techniques and processes

2 Be able to develop design ideas for 3D products

3 Be able to produce design outcomes for 3D products

4 Be able to comment on design outcomes of own work.

Unit content

1 **Be able to explore 3D materials, techniques and processes**

Non-resistant material: eg plaster, clay, card, paper, lightweight wood, string, soft wire, plastic sheet, fabrics

Resistant materials: eg metals, wood, wood-based products, rigid plastics, glass

Techniques and processes: techniques eg cutting, carving, forming, moulding, joining, assembling, finishing

Using research sources: primary eg first-hand observations, drawings, visits, museums, galleries, visual, tactile, built, natural environment, responding directly, stimulus; secondary eg images, clippings, buildings, photographs, books, work of others, poetry, music

Research methods: primary eg sketches, drawings, photographs, interviews with people; secondary eg postcards, leaflets, internet, videos, CD ROMs, books, magazines, journals; annotations; notes

Health and safety: studio; workplace eg risk assessments, safe tool and materials operation, COSHH assessments

2 **Be able to develop design ideas for 3D products**

Idea selection: eg individual notes and group discussion, brainstorming, development exercises such as roughs, thumbnails, sketches, scale drawings, ideas worksheets

Using the materials: eg justification of material selection, appreciation of properties and suitability, demonstration of cutting and carving techniques, forming and moulding techniques, maquette, development plans and drawings, joining and assembling techniques, finishing techniques

Professional practice: eg design of electrical equipment, domestic ware, handheld products, architectural fittings, door handles

Limitations: eg resources, availability, costs, deadline

Presenting design ideas: eg presentation to the client throughout the development process, presentation of final product, gathering audience response

Health and safety: COSHH guidelines

3 **Be able to produce design outcomes for 3D products**

Produce design outcomes: eg 3D products for domestic use, 3D animations, packaging, interior designs, theatre designs, exhibition designs

4 **Be able to comment on design outcomes of own work.**

Comment on materials selected and used in own work: describe materials used, justify material selection, evaluate the development process, evaluate the client response to the final product, evaluate the final product

Comment on techniques and processes selected and used in own work: eg describe techniques and processes used, justify techniques and processes selection, evaluate the making process

Assessment criteria and grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 explore different 3D materials, techniques and processes	**M1** describe a range of 3D materials, techniques and process in some detail	**D1** evaluate a range of 3D materials, techniques and process in detail
P2 develop appropriate design ideas for 3D products	**M2** develop considered design ideas for 3D products	**D2** develop well considered design ideas for 3D products
P3 produce an appropriate design outcome for 3D products	**M3** produce a 3D design outcome that would be useable with minor alterations	**D3** produce an effective 3D design outcome that is fit for purpose
P4 comment on strengths and weaknesses of own design work.	**M4** explain the use of 3D techniques and processes in own work.	**D4** explain in detail the use of 3D techniques and processes in own work.

Essential guidance

Delivery

This unit provides learners with the opportunity to work in any area of 3D design. Products may include furniture, fittings, domestic ware, and accessories. Learners should be encouraged to experiment and combine materials and techniques. Learners will explore the different graphic materials and resources available to them. Further exploration will focus on developing research and development skills and design and making skills. The exploration of media, materials, techniques and technology should inform the development of a personal preference.

Learners should be encouraged to keep all evidence of their work in a working sketchbook, discussing and developing the workshop results.

Learners should be encouraged to investigate the work of professional practitioners, artists and various cultures to inform and inspire their own work.

Assessment

The main purpose of this unit is to develop the learners' knowledge and use of design technology materials through tutor demonstration and practical workshops in which the learners are given many opportunities to experiment with design technology materials and processes. The use of tutor witness statements will provide supportive evidence of learner attainment. Assessment should comprise formative assessment of the process and summative assessment of the final outcomes. The unit is developmental as the skills and knowledge builds so the learners' confident use of materials and processes should be evident. This unit is summatively assessed through work in the learners' portfolios and their final outcome.

Employer engagement and vocational contexts

Centres should develop links with practising craftspeople and designers to provide assignments or work experience. A lecture or visit by a designer, craft worker or practitioner local to the centre may provide useful and pertinent information on working practice.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk
- business and finance advice, and local business links – www.businesslink.gov.uk

Creative and Cultural Skills, the Sector Skills Council for design, has launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the design sector, including job descriptions.

Skillset, the Sector Skills Council for creative media production, textiles and fashion, provides details on its website about careers and the industry (www.skillset.org) and has a regularly updated news and events page.

Essential resources

The resources needed for this unit must include a variety of 3D material and digital media with associated hardware and software, studio tools and equipment and related journals and reference materials.

Indicative resources

Textbooks

Cooper R and Press M — *The Design Experience: The Role of Design and Designers in the Twenty-First Century* (Ashgate, 2003) ISBN 978-0566078910

Guidot R and Touchard J-B — *Industrial Design: Techniques and Materials* (Flammarion, 2006) ISBN 978-2080305190

Owen-Jackson G — *Developing Subject Knowledge in Design and Technology: Developing Planning and Communicating Ideas* (Trentham Books, 2001) ISBN 978-1858562445

Thompson R— *Manufacturing Processes for Design Professionals* (Thames & Hudson, 2007) ISBN 978-0500513750

Journals

Creative Review

Design Magazine

Design Week

Eco Design

Fine Scale Modeler

Websites

www.hse.gov.uk/pubnslaw.pdf	Health and safety for design technology
www.technologystudent.com	Design technology information sheets for pupils and teachers

Unit 3: Surface Decoration Materials, Techniques and Processes

Unit reference number: H/602/0982

Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to gain skills in working with the specialist materials, techniques and processes used in surface decoration and to apply them to their own work.

Unit introduction

This unit introduces the learner to surface decoration techniques. Surface decoration combines the qualities of texture, pattern and colour to create decorative surface finishes. Learners will develop skills, using a range of materials, by exploring and experimenting with different techniques and processes. This unit provides the opportunity to explore the creative possibilities of a range of surface decoration techniques which could be applied to a range of 3D surfaces such as interiors, sculptures, ceramics, and jewellery.

Learning outcomes

To achieve this unit a learner must:

1 Be able to use materials for surface decoration

2 Be able to use techniques and finishes in surface decoration

3 Be able to use tools, equipment and technology for surface decoration

4 Be able to work safely and responsibly.

Unit content

1 **Be able to use materials for surface decoration**

Materials: dry eg fabrics, threads, yarns (various weights, textures), chicken wire, papers, plastics, cards, metal, glass, wood, lino; wet eg inks, dyes, paints, stains, plaster, clay, slips, photographic images; found eg aluminium cans, plastic bags, electricity cable, organic material (grasses, twigs, pebbles); other considerations eg fitness for purpose, aesthetics

Experimentation: eg combining materials (traditional, non-traditional, media), manipulating materials, textures, colour, aesthetics, appearance

2 **Be able to use techniques and finishes in surface decoration**

Specialist techniques: eg paints (wash, spraying, blending), printing (monoprint, stencil, collagraph), texture compounds (sawdust, plaster, paper), texturing effects with paints (wax resist, splattering, rolling, stencilling, marbling, graining, printing, embossing, moulding, sgraffito), textiles (embroidery, felting, weaving)

Finishes: eg textures (rough, smooth), colour, assembly (cutting, joining, carving, construction), appearance

Experimentation: combinations eg media, techniques (decorative, design), finishes, technologies (image manipulation, colour)

3 **Be able to use tools, equipment and technology for surface decoration**

Tools: eg knives, saws, chisels, gouges, sanders, drills

Specialist equipment: eg printing (lino cutting tools, lino blocks, potato printing, string printing, Perspex sheets, ink rollers, wood cuts), clay (tile cutters, modelling tools, slip trailers, wax pots, sgrafitto tool), textiles (tjantings, sewing machines, hand looms), painting (brushes, flat, lay-in, round, stipple, grainers, rollers, sponges, rags)

Technology: eg new technologies (scanners, computers, digital cameras)

4 **Be able to work safely and responsibly**

Health and safety: responsible studio practice; safe use of equipment eg sharp tools, electrical equipment; maintenance; cleaning; personal protective equipment (PPE); COSHH guidelines on materials

Assessment criteria and grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 explore different materials for use with surface decoration	**M1** purposefully investigate a range of materials for use with surface decoration	**D1** thoroughly investigate a wide range of materials for use with surface decoration
P2 experiment with different basic techniques and finishes for surface decoration	**M2** competently experiment with a range of techniques and finishes for surface decoration	**D2** confidently experiment with a wide range of techniques and finishes for surface decoration
P3 use tools, equipment and technology for surface decoration appropriately	**M3** use tools, equipment and technology for surface decoration appropriately and competently	**D3** use tools, equipment and technology for surface decoration appropriately and skilfully
P4 use specialist materials, techniques, and processes responsibly and safely.	**M4** competently use specialist techniques, technologies and processes responsibly and safely.	**D4** confidently use specialist techniques, technologies and processes responsibly and safely.

Essential guidance

Delivery

This unit provides learners with the opportunity to explore and experiment with working in surface decoration using a varied and extensive range of materials and techniques. Learners should be encouraged to extend their use of visual language into a surface design/decoration context. The learner should become familiar with the visual characteristics and physical properties of the materials that they choose to work with. They will need support at this level and they will need to be encouraged to experiment with combining different materials, media, techniques and technology depending on the resources available. Learners will need to be made aware of the health and safety issues connected to a wide range of different materials, tools and equipment.

Assessment

This unit is assessed through work in the learners' portfolios. Some of the evidence may come from completed work in the other units as surface decoration could be covered in all other units. Where group work is undertaken it is important to ensure that each individual's contribution can be identified and authenticated. Evidence may be in the form of sketchbook work, worksheets, annotations, technical notes, samples or test pieces. Evidence to show awareness of health and safety issues may be through observation and annotations.

Employer engagement and vocational contexts

Centres should develop links with practising craftspeople and designers to provide assignments or work experience. A lecture or visit by a designer, craft worker or practitioner local to the centre may provide useful and pertinent information on working practice.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk
- business and finance advice, and local business links – www.businesslink.gov.uk

Creative and Cultural Skills, the Sector Skills Council for design, has launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the design sector, including job descriptions.

Skillset, the Sector Skills Council for creative media production, textiles and fashion, provides details on its website about careers and the industry (www.skillset.org) and has a regularly updated news and events page.

Essential resources

Adequate resources, work and storage space should be provided for learners to explore the range of materials and techniques identified in the unit. For materials the learners will need a wide variety of fabrics, yarns, threads, inks, dyes, chicken wire, clay, glass, paper, and found materials. The tools and equipment that will be required will be those associated with textiles, printing, moulding and assembly. Library and learning facilities, which enable learners to access examples of surface decoration in art, design and craft should be made available. Access to a photocopier and computers with scanners and printers would also prove useful.

Indicative resources

Textbooks

Cole D — *1000 Patterns (*A&C Black Limited, 2003) ISBN 978-071366716 5

Eberle B — *Creative Glass Techniques* (A&C Black Limited, 1997)
ISBN 978-0713647259

Innes J — *Paintability* (Weidenfeld & Nicholson, 1988) ISBN 978-0297791560

Minogue C — *Impressed and Incised Ceramics* (A&C Black Limited, 2002)
ISBN 978-0713661187

Ostermann M — *The Ceramic Surface* (A&C Black Limited, 2002)
ISBN 978-0713654271

Scott P — *Ceramics and Print* (A&C Black Limited, 2002) ISBN 978-0713654851

Scott P — *Painted Clay* (A&C Black Limited, 2001) ISBN 978-0713647549

Skinner K — *Paint Effects Bible* (Firefly Books, 2003) ISBN 978-1552977187

Trow A — *Surface* (RotoVision, 2002) ISBN 978-2880465568

Various — *The Encyclopaedia of Jewellery Making Techniques* (Running Press, 2003)
ISBN 978-1561385263

Journals

Artists Newsletter

Crafts

Creative Review

Websites

www.caa.org.uk	Contemporary Applied Arts gallery – exhibitions of contemporary crafts
www.craftscouncil.org.uk	National development agency for contemporary crafts – exhibitions and register of craft workers
www.vam.ac.uk	Victoria and Albert Museum – art and design museum

Unit 4: Ceramics Materials and Processes

Unit reference number: A/602/0986

Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to explore the creative potential of clay and associated making techniques and to experiment with a range of decorative processes.

Unit introduction

This unit is designed to introduce the learner to ceramics and to encourage them to investigate the creative potential of clay and associated materials and techniques. They will be introduced to the idea of experimenting with different making and decorating techniques and to experience the basic processes of making, decorating and firing. Ceramics includes a wide range of processes and production methods ranging from the studio potter creating one-off items to commercial mass-produced items. This unit will also encourage the learner to investigate these processes and to research contemporary or historical ceramic artists.

Learning outcomes

To achieve this unit a learner must:

1 Be able to investigate the properties and characteristics of ceramic materials

2 Be able to use clay making and building techniques

3 Be able to develop decorating techniques using slips and glazes

4 Be able to work safely and responsibly with ceramic materials.

Unit content

1 **Be able to investigate the properties and characteristics of ceramic materials**

Investigation: ceramic materials eg properties, characteristics; processes; sources for inspiration eg primary, secondary

Ceramic materials: clay; slips; glazes

Properties and characteristics: types of clay eg earthenware, stoneware, porcelain; clay colours eg red, white, colouring clays; textures eg rough and smooth; additives eg grog, paper; slips eg mixing, colouring, decorating; glazes eg applications, types, temperatures, colours, finishes; oxides

Primary sources: eg first-hand observations, sketches, drawings, built environment, natural forms, own photographs, own interviews, own previous work

Secondary sources: visual references eg images, clippings, buildings, photographs, books, CD ROMs, magazines, journals, photocopies, postcards

2 **Be able to use clay making and building techniques**

Techniques: preparing clay eg wedging, kneading; building techniques eg pinch pots, coil pots, slab pots, press moulds, thrown ware

Tools and equipment: eg modelling tools, potter's knife, cutting wire, sponge, potter's needle, ribs (bamboo, metal), loop tool, wheels (throwing, banding), moulds

3 **Be able to develop decorating techniques using slips and glazes**

Decorating tools: eg mop brushes, Chinese brushes, slip trailers, sgraffito tools

Decorating techniques: slip eg resist, masking, sgraffito decoration, marbling; decoration techniques (impressed, relief) eg stamps, wood blocks, sprigs, found objects; inlaid decoration eg encaustic tiles, inlay (different coloured clays); oxides; glazes eg mixing, applying, maiolica decoration, raku glazes, lustres

Firing processes: eg temperatures, kilns, raku firing, smoking, sawdust kilns

4 **Be able to work safely and responsibly with ceramic materials**

Health and safety: responsible studio practice eg materials (clays, glazes, oxides), equipment (kilns, knives, cutters), processes (glazing, firing); safe storage eg tools, materials; cleaning procedures; protective clothing (dust masks, overalls, gloves); adherence to COSSH guidelines for materials eg clay (dust), glazes, oxides

Recording: *eg* technical notes (materials, firing temperatures, glaze recipes), annotations (health and safety, making processes, decorating processes), drawings, sketches, results (reviewing, discussing), developing ideas

Final outcomes: eg test piece, trials, samples, response to brief (requirements, limitations, deadlines); intentions eg sculptural, functional

Assessment criteria and grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 investigate the different properties and characteristics of basic ceramic materials	**M1** methodically investigate different properties and characteristics of a range of ceramic materials	**D1** thoroughly investigate different properties and characteristics of a wide range of ceramic materials
P2 experiment and explore making and building techniques using different clays	**M2** purposefully experiment with and explore a range of making and building techniques using different clays effectively	**D2** creatively experiment with and explore a wide range of making and building techniques using different clays skilfully
P3 develop different decorating techniques using slips and glazes	**M3** competently develop a range of decorating techniques using slips and glazes effectively	**D3** creatively develop a wide range of decorating techniques using slips and glazes skilfully
P4 work safely and responsibly with ceramic materials.	**M4** work competently, safely and responsibly with ceramic materials.	**D4** work confidently, safely and responsibly with ceramic materials.

Essential guidance

Delivery

This unit is designed for the learner to develop skills in, and explore, basic ceramic techniques and processes. It is expected that the learner will work to a simple brief to encourage the development of skills in research techniques, ideas generating and design development appropriate to a given theme. Learners need to be able to choose and use suitable ceramic materials, processes and techniques appropriate to their ideas. They should be encouraged to experiment with combining materials and techniques. Learners must be made aware of the toxic nature of ceramic materials and understand the importance of health and safety in the studio. They will also need to comment on the progress of their development and make basic evaluations of their final work.

Assessment

This unit is assessed through work in the learners' portfolios and final outcomes. Basic evidence of experimenting with and exploring making and building techniques, using different clays, is essential. Experimental pieces should be fired and kept as evidence for assessment. The learner must show experience and development of different decorating techniques using slips and glazes. They should be encouraged to keep a working sketchbook or file which contains notes, annotations, drawings, sketches etc of the basic processes of making and decorating techniques. This could also include simple and appropriate annotation on health and safety.

Employer engagement and vocational contexts

Centres should develop links with practising craftspeople and designers to provide assignments or work experience. A lecture or visit by a designer, craft worker or practitioner local to the centre may provide useful and pertinent information on working practice.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk
- business and finance advice, and local business links – www.businesslink.gov.uk

Creative and Cultural Skills, the Sector Skills Council for design, has launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the design sector, including job descriptions.

Skillset, the Sector Skills Council for creative media production, textiles and fashion, provides details on its website about careers and the industry (www.skillset.org) and has a regularly updated news and events page.

Essential resources

Specialist workshop facilities, equipped to the appropriate standard for this level of work, are essential. The studio should include safe storage for raw materials and work in progress, specialist machinery and equipment for the production of ceramic work, kilns (conventional and raku) and suitable space for mixing glazes and a clean area for recording trials and experiments.

Indicative resources

Textbooks

Ceramics Handbooks are a series of highly illustrated books for working potters, learners and teachers. These books are clearly written and cover a wide range of topics. They are published by A&C Black Limited and the titles are as follows:

Beard P — *Resist and Masking Techniques* (A&C Black Limited, 1996) ISBN 978-0713637472

Colclough J — *Mould Making* (A&C Black Limited, 1999) ISBN 978-0713644890

Creber D — *Crystalline Glazes* (A&C Black Limited, 1999) ISBN 978-0713646153

Dewer R — *Stoneware* (A&C Black Limited, 2002) ISBN 978-0713657777

Doherty J — *Porcelain* (A&C Black Limited, 2002) ISBN 9780-0713650853

Fraser H — *The Electric Kiln* (A&C Black Limited, 2000) ISBN 978-0713657227

Gregory I — *Kiln Building* (A&C Black Limited, 2002) ISBN 978-0713661194

Mathieson J — *Raku* (A&C Black Limited, 2002) ISBN 978-0713657838

Minogue C — *Impressed and Incised Ceramics* (A&C Black Limited, 2002) ISBN 978-0713661187

Robinson J — *Large Scale Ceramics* (A&C Black Limited, 1997) ISBN 978-0713641684

Rogers P — *Throwing Pots* (A&C Black Limited, 1995) ISBN 978-071365723

Scott P — *Ceramics and Print* (A&C Black Limited, 2002) ISBN 978-0713654851

White M — *Lettering on Ceramics* (A&C Black Limited, 2003) ISBN 978-0713662646

Journals

Ceramic Review

Craftsman's Magazine

Creative Review

Design Week

Websites

www.caa.org.uk	Contemporary Applied Arts gallery – exhibitions of contemporary crafts
www.craftscouncil.org.uk	National development agency for contemporary crafts – exhibitions and register of craft workers
www.vam.ac.uk	Victoria and Albert Museum – art and design museum, new ceramics gallery

Unit 5: Working to a 3D Brief

Unit reference number: L/602/0989

Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

This unit aims to enable learners to gain the skills and knowledge needed to interpret and respond to a design brief from initial research to final outcome.

Unit introduction

The aim of this unit is to teach learners how to research, develop and produce 3D work in response to a brief. The learners will need to recognise and understand what the brief is asking them to do and they will need to be taught how to respond to the topic or theme. Learners will need to produce evidence of their research and designs as they explore and develop their 3D making and presentation skills to produce a final outcome.

Learning outcomes

To achieve this unit a learner must:

1 Be able to research the topic or theme in the brief

2 Be able to meet the demands and requirements stated in the brief

3 Be able to use 3D materials and techniques to produce a final outcome

4 Be able to present the finished work.

Unit content

1 **Be able to research the topic or theme in the brief**

Research: work of others eg artists, craftspeople, designers, visiting relevant galleries, museums

Topic or theme: starting point eg focus, pathway, stimulus word (eg containment, entertainment, adornment)

2 **Be able to meet the demands and requirements stated in the brief**

Understanding a brief: client needs eg audience, user, client requirements; resource planning eg budgeting, time management and working to a schedule; development eg constraints, planning, production of the final piece, considering materials, cost, scale, size, weight, form, colour, suitability; health and safety

3 **Be able to use 3D materials and techniques to produce a final outcome**

3D materials: non-resistant materials eg plaster, clay, card, paper, lightweight wood, string, soft wire, plastic sheet, fabrics, textile; resistant materials eg metals, wood, wood-based products, rigid plastics, glass, found objects, re-purposed items

3D techniques: making and finishing eg cutting, carving, forming, moulding, joining, assembling, finishing

Safe working: follow health and safety guidelines

4 **Be able to present the finished work**

Presentation: present ideas and solutions eg design sheets, moodboards, working drawings, photographs, samples, models, sketchbook work, evaluation, group critique, digital presentation, client pitch

Assessment criteria and grading grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all of the learning outcomes for the unit. The assessment criteria for a pass grade describes the level of achievement required.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	**To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:**	**To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:**
P1 research and collect visual information related to the brief's topic or theme	**M1** competently research and collect a range of visual information related to the brief's topic or theme	**D1** thoroughly research and collect a wide range of visual information related to the brief's topic or theme
P2 produce work that meets the demands and requirements of the brief	**M2** competently meet the demands and requirements of the brief	**D2** creatively meet the demands and requirements of the brief
P3 use different 3D materials and techniques to produce an appropriate final outcome	**M3** effectively use a range of different 3D materials and techniques to produce a final outcome	**D3** creatively use a range of 3D materials and techniques to produce a final outcome
P4 present the finished work in an appropriate format.	**M4** competently present the work in an appropriate format.	**D4** skilfully present the work in an appropriate format.

Essential guidance

Delivery

This unit is an opportunity for learners to undertake focused projects in the specialist area of 3D design. The brief should provide enough detail for the learners to be able to research the topic or theme, and should include information on requirements, constraints and deadlines. Learners should consider client or audience needs and this would be through briefs that reflect current practice. Learners need to be able to choose suitable materials, techniques and processes to realise their ideas and respond to the brief.

Assessment

Learners should focus on developing skills and understanding about different materials and techniques and how they can be used to meet the requirements of given briefs. This unit is assessed through work in learners' portfolios and their final outcomes.

Employer engagement and vocational contexts

Centres should develop links with practising craftspeople and designers to provide assignments or work experience. A lecture or visit by a designer, craft worker or practitioner local to the centre may provide useful and pertinent information on working practice.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk
- business and finance advice, and local business links – www.businesslink.gov.uk

Creative and Cultural Skills, the Sector Skills Council for design, has launched the web portal Creative Choices (www.creative-choices.co.uk). This portal has a range of information about careers in the design sector, including job descriptions.

Skillset, the Sector Skills Council for creative media production, textiles and fashion, provides details on its website about careers and the industry (www.skillset.org) and has a regularly updated news and events page.

Essential resources

The resources needed for this unit must include studio tools and equipment and related journals and reference materials. The resources needed will vary according to the specific technical and material demands of the 3D areas chosen, but they are likely to include hand tools and equipment suitable for working with non-resistant and resistant materials, machinery and workshop space.

Indicative resources

Textbooks

Genders C — *Sources of Inspiration: For Ceramics and the Applied Arts* (A&C Black, 2004) ISBN 978-0713670981

Lefteri C — *Making It: Manufacturing Techniques for Product Design* (Laurence King, 2007) ISBN 978-1856695060

Thompson R — *Manufacturing Processes for Design Professionals* (Thames and Hudson, 2007) ISBN 978-0500513750

Journals

Ceramic Review

Crafts

Selvedge

Websites

www.craftscouncil.org.uk	This website contains resources on craft skills, makers and exhibitions throughout the UK, and also publishes *Crafts*
www.designcouncil.org.uk	Full of information, case studies and current practice
www.designnation.co.uk	Promotes British design internationally

Further information and useful publications

To get in touch with us visit our 'Contact us' pages:

- Edexcel, BTEC and Pearson Work Based Learning contact details: qualifications.pearson.com/en/support/contact-us.html
- books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk

Key publications:

- *Adjustments for candidates with disabilities and learning difficulties, Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications* (Joint Council for Qualifications (JCQ))
- *Supplementary guidance for reasonable adjustments and special consideration in vocational internally assessed units* (Pearson)
- *General and Vocational qualifications, Suspected Malpractice in Examination and Assessments: Policies and Procedures* (JCQ)
- *Equality Policy* (Pearson)
- *Recognition of Prior Learning Policy and Process* (Pearson)
- *UK Information Manual* (Pearson)
- *BTEC UK Quality Assurance Centre Handbook*

All of these publications are available on our website.

Publications on the quality assurance of BTEC qualifications are also available on our website.

Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please visit our website.

Additional resources

If you need further learning and teaching materials to support planning and delivery for your learners, there is a wide range of BTEC resources available.

Any publisher can seek endorsement for their resources and, if they are successful, we will list their BTEC resources on our website.

How to obtain National Occupational Standards

Creative and Cultural Skills
Lafone House
The Leathermarket
Weston St
London
SE1 3HN

Telephone: 020 7015 1800
Fax: 020 7015 1847
Email: info@ccskills.org.uk
Website: www.ccskills.org.uk

Skillset
Focus Point
21 Caledonian Road
London
N1 9GB

Telephone: 020 7713 9800
Fax: 020 7713 9801
Email: info@skillset.org
Website: www.skillset.org

qualifications. This support is available through a choice of training options offered on our website.

The support we offer focuses on a range of issues, such as:

- planning for the delivery of a new programme
- planning for assessment and grading
- developing effective assignments
- building your team and teamwork skills
- developing learner-centred learning and teaching approaches
- building in effective and efficient quality assurance systems.

The national programme of training we offer is on our website. You can request centre-based training through the website or you can contact one of our advisers in the Training from Pearson UK team via Customer Services to discuss your training needs.

BTEC training and support for the lifetime of the qualifications

Training and networks: our training programme ranges from free introductory events through sector-specific opportunities to detailed training on all aspects of delivery, assignments and assessment. We also host some regional network events to allow you to share your experiences, ideas and best practice with other BTEC colleagues in your region.

Regional support: our team of Curriculum Development Managers and Curriculum Support Consultants, based around the country, are responsible for providing advice and support in centres. They can help you with planning and curriculum developments.

To get in touch with our dedicated support teams please visit our website.

Your Pearson support team

Whether you want to talk to a sector specialist, browse online or submit your query for an individual response, there's someone in our Pearson support team to help you whenever – and however – you need:

- Subject Advisors: find out more about our subject advisor team – immediate, reliable support from a fellow subject expert
- Ask the Expert: submit your question online to our Ask the Expert online service and we will make sure your query is handled by a subject specialist.

Please visit our website at qualifications.pearson.com/en/support/contact-us.html

Annexe A

The Pearson BTEC qualification framework for the Art and Design sector

Progression opportunities within the framework.

Level	General qualifications	BTEC full vocationally-related qualifications	BTEC specialist courses	NVQ/occupational
8				
7				
6				
5		BTEC Level 5 HND Diploma in Art and Design/ Fashion and Textiles/ Fine Art/ Graphic Design/ Interactive Media/ 3D Design/ 3D Design		
4		BTEC Level 4 Foundation Diploma in Art and Design BTEC Level 4 HNC Diploma in Art and Design/ Fashion and Textiles/ Fine Art/ Graphic Design/ Interactive Media/ 3D Design/ 3D Design		Level 4 NVQ Design Management

Level	General qualifications	BTEC full vocationally-related qualifications	BTEC specialist courses	NVQ/occupational
3	GCE AS in Art and Design GCE Advanced in Art and Design AS in Applied Art and Design Advanced in Applied Art and Design	BTEC Level 3 Foundation Diploma in Art and Design BTEC Level 3 Certificate, Subsidiary Diploma, Diploma and Extended Diploma in Art and Design/ Art and Design (Textiles)/ Art and Design (Graphic Design)/ Art and Design (3D Design)/ Art and Design (Fine Art)/ Art and Design (Design Crafts)/ Art and Design (Fashion and Clothing)/ Art and Design (3D Design)/ Art and Design (Interactive Media)	BTEC Level 3 Award, Certificate and Diploma in Interactive Media/ 3D Design/ Design Crafts/ Textiles/ Graphic Design/ 3D Design/ Fashion and Clothing/Fine Art	Level 3 NVQ Design
2	GCSE in Art and Design GCSE Short Course in Art and Design	BTEC Level 2 Certificate, Extended Certificate and Diploma in Art and Design	BTEC Level 2 Award, Certificate and Diploma in Interactive Media/ 3D Design/ Textiles/ Graphics/ 3D Design / Fashion and Clothing/ Fine Art BTEC Level 2 Subsidiary Certificate, Certificate and Diploma in Design	Level 2 NVQ Design Support

Level	General qualifications	BTEC full vocationally-related qualifications	BTEC specialist courses	NVQ/occupational
1	GCSE in Art and Design GCSE Short Course in Art and Design	BTEC Level 1 Award/Certificate/Diploma in Art and Design	BTEC Level 1 Award, Certificate and Diploma in Interactive Media/ 3D Design/ Textiles/ Graphic Design/ 3D Design / Fashion and Clothing/ Fine Art	
Entry		BTEC Entry Level Award in Art and Design (Entry 3)		

Annexe B

Wider curriculum mapping

Study of the Pearson BTEC Level 1 qualifications give learners opportunities to develop an understanding of spiritual, moral, ethical, social and cultural issues as well as an awareness of citizenship, environmental issues, European developments, health and safety considerations and equal opportunities issues.

Spiritual, moral, ethical, social and cultural issues

Throughout the delivery of these qualifications learners will have the opportunity to actively participate in different kinds of decision making. They will have to consider fair and unfair situations and explore how to resolve conflict. Working in small groups they will learn how to respect and value others' beliefs, backgrounds and traditions.

Citizenship

Learners undertaking these qualifications will have the opportunity to develop their understanding of citizenship issues.

Environmental issues

Developing a responsible attitude towards the care of the environment is an integral part of this qualification. Learners are encouraged to minimise waste and discuss controversial issues.

European developments

Much of the content of the qualification applies throughout Europe, even though the delivery is in a UK context.

Health and safety considerations

Health and safety is embedded within many of the units in this qualification. Learners will consider their own health and safety at work, how to identify risks and hazards and how to minimise those risks.

Equal opportunities issues

There will be opportunities throughout this qualification to explore different kinds or rights and how these affect both individuals and communities for example learners will consider their rights at work and the rights of employers and how these rights affect the work community.

Annexe C

National Occupational Standards mapping

The grid below maps the knowledge covered in the Pearson BTEC Level 1 Award in 3D Design against the general categories of the Skillset and Creative and Cultural Skills National Occupational Standards.

KEY

\# indicates partial coverage of the specified category of National Occupational Standards

a blank space indicates no coverage.

Level 1

National Occupational Standards					
Skillset	**1**	**2**	**3**	**4**	**5**
Photo Imaging					
Ccskills					
Crafts	#	#	#	#	#
Design	#	#	#	#	#
Jewellery	#	#	#		#

January 2018

For information about Edexcel, BTEC or LCCI qualifications visit qualifications.pearson.com

Pearson Education Limited. Registered in England and Wales No. 872828
Registered Office: 80 Strand, London WC2R 0RL.
VAT Reg No GB 278 537121