

Specification

BTEC Specialist qualifications

Edexcel BTEC Levels 1 and 2 Awards/Certificates/Diplomas
in 3D Design (QCF)

For first teaching September 2010

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BTEC Specialist qualification titles covered by this specification

Edexcel BTEC Level 1 Award in 3D Design

Edexcel BTEC Level 1 Certificate in 3D Design

Edexcel BTEC Level 1 Diploma in 3D Design

Edexcel BTEC Level 2 Award in 3D Design

Edexcel BTEC Level 2 Certificate in 3D Design

Edexcel BTEC Level 2 Diploma in 3D Design

These qualifications have been accredited to the Qualifications and Credit Framework (QCF) and are eligible for public funding as determined by the Department for Education (DfE) under Sections 96 and 97 of the Learning and Skills Act 2000.

The qualification titles listed above feature in the funding lists published annually by the DfE and the regularly updated website www.education.gov.uk/. The QCF Qualifications Accreditation Number (QAN) should be used by centres when they wish to seek public funding for their learners. Each unit within a qualification will also have a QCF unit code.

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

The Qualification Accreditation Numbers for the qualifications in this publication are:

Edexcel BTEC Level 1 Award in 3D Design	501/0561/9
Edexcel BTEC Level 1 Certificate in 3D Design	501/0562/0
Edexcel BTEC Level 1 Diploma in 3D Design	501/0589/9
Edexcel BTEC Level 2 Award in 3D Design	501/0557/7
Edexcel BTEC Level 2 Certificate in 3D Design	501/0560/7
Edexcel BTEC Level 2 Diploma in 3D Design	501/0559/0

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

These qualifications are accredited by Ofqual as being Stand Alone/Additional and Specialist Learning within 14-19 Diplomas.

Welcome to BTEC Levels 1 and 2 Awards/Certificates/Diplomas in 3D Design (QCF)

We are delighted to introduce our new qualifications, which will be available for teaching from September 2010. These qualifications have been revised and conform with the requirements of the new QCF (Qualifications and Credit Framework).

Focusing on the BTEC Levels 1 and 2 Awards/Certificates/Diplomas in 3D Design (QCF)

This document contains the units and associated guidance for the Edexcel BTEC Levels 1 and 2 Awards, Certificates and Diplomas in 3D Design as revised for the Qualifications Credit Framework (QCF). This issue retains the previous content for the Levels 1 and 2 Awards, Certificates and Diplomas in 3D Design. The associated Level 3 Award, Certificate and Diploma in 3D Design are published separately as Additional and Specialist Learning for the Advanced Diploma in Creative and Media.

These qualifications are designed to meet a range of different needs. They offer:

- maximum flexibility with programmes of 60, 180 or 360 hours
- the opportunity to certificate smaller blocks of learning, which are designed to motivate learners and encourage widening participation in education and training
- courses that relate 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
- programmes 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 Edexcel 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.

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What are BTEC Levels 1 and 2 Specialist qualifications?

BTEC Specialist qualifications are qualifications at Entry Level to Level 3 in the Qualifications and Credit Framework (QCF) and are designed to provide specialist work-related qualifications in a range of sectors. They give learners the knowledge, understanding and skills that they need to prepare for employment. The qualifications also provide career development opportunities for those already in work. Consequently they provide a course of study for full-time or part-time learners in schools, colleges and training centres.

BTEC Specialist qualifications provide much of the underpinning knowledge and understanding for the National Occupational Standards for the sector, where these are appropriate. They are supported by the relevant Standards Setting Body (SSB) or Sector Skills Council (SSC). A number of BTEC Specialist qualifications are recognised as the knowledge components of Apprenticeships Frameworks. They attract achievement and attainment table points that equate to similar-sized general qualifications.

On successful completion of a BTEC Specialist qualification, learners can progress to or within employment and/or continue their study in the same, or related vocational area.

Care needs to be exercised when registering learners as the titling conventions and titles for the revised QCF versions of the BTEC Level 2 Firsts and BTEC Level 3 Nationals have changed.

The QCF is a framework which awards credit for qualifications and units and aims to present qualifications in a way that is easy to understand and measure. It enables learners to gain qualifications at their own pace along flexible routes.

There are three sizes of qualification in the QCF:

- Award (1 to 12 credits)
- Certificate (13 to 36 credits)
- Diploma (37 credits and above).

Every unit and qualification in the framework will have a credit value.

The credit value of a unit specifies the number of credits that will be awarded to a learner who has achieved the learning outcomes of the unit.

The credit value of a unit is based on:

- one credit for those learning outcomes achievable in 10 hours of learning
- learning time – 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 will remain constant in all contexts, regardless of the assessment method used for the qualification(s) to which it contributes.

Learning time should address all learning (including assessment) relevant to the learning outcomes, regardless of where, when and how the learning has taken place.

Edexcel BTEC Levels 1 and 2 Awards

The Edexcel BTEC Levels 1 and 2 Awards provide an introduction to the skills, qualities and knowledge that may be required for employment in a particular vocational sector.

Edexcel BTEC Levels 1 and 2 Certificates

The Edexcel BTEC Levels 1 and 2 Certificates extend the work-related focus from the Edexcel BTEC Levels 1 and 2 Awards and cover some of the knowledge and practical skills required for a particular vocational sector.

The Edexcel BTEC Levels 1 and 2 Certificates offer an engaging programme for those who are clear about the vocational area they want to learn more about. These learners may wish to extend their programme through the study of a related GCSE, a complementary NVQ or other related vocational or personal and social development qualification. These learning programmes can be developed to allow learners to study complementary qualifications without duplication of content.

For adult learners the Edexcel BTEC Levels 1 and 2 Certificates can extend their knowledge and understanding of work in a particular sector. It is a suitable qualification for those wishing to change career or move into a particular area of employment following a career break.

Edexcel BTEC Levels 1 and 2 Diplomas

The Edexcel BTEC Levels 1 and 2 Diplomas extend the work-related focus from the Edexcel BTEC Levels 1 and 2 Certificates. There is potential for the qualifications to give learners a good grounding in professional and employment practices and they are suitable for those who have decided that they wish to enter a specific area of work.

Key features of the Edexcel BTEC Levels 1 and 2 in 3D Design

At Level 1 the focus is on the basic skills and knowledge required to work as a 3D designer. At Level 2 learners will build on and develop their skills, and begin to extend their knowledge into understanding.

Obviously a learner following a Diploma, whether at Level 1 or Level 2, will develop a wider range of skills, knowledge and understanding than a learner following a Certificate or Award.

The Edexcel BTEC Levels 1 and 2 in 3D Design have 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 or 2 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, Edexcel BTEC Levels 1 and 2 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). Edexcel BTEC Levels 1 and 2 (QCF) 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 Edexcel BTEC Levels 1 and 2 Awards, Certificates and Diplomas in 3D Design relate 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 within the QCF have rules of combination.

Rules of combination for the Edexcel BTEC Levels 1 and 2 qualifications in 3D Design

When combining units for Edexcel BTEC Levels 1 and 2 in 3D Design, it is the centre's responsibility to ensure that the following rules of combination are adhered to.

Edexcel BTEC Levels 1 and 2 Award in 3D Design

- 1 Qualification credit value: a minimum of 10 credits.
- 2 Minimum credit to be achieved at, or above, the level of the qualification: 10 credits.
- 3 All credits must be achieved from the units listed in this specification.

Edexcel BTEC Levels 1 and 2 Certificate in 3D Design

- 1 Qualification credit value: a minimum of 30 credits.
- 2 Minimum credit to be achieved at, or above, the level of the qualification: 30 credits.
- 3 All credits must be achieved from the units listed in this specification.

Edexcel BTEC Levels 1 and 2 Diploma in 3D Design

- 1 Qualification credit value: a minimum of 60 credits.
- 2 Minimum credit to be achieved at, or above, the level of the qualification: 60 credits.
- 3 All credits must be achieved from the units listed in this specification.

Edexcel BTEC Level 1 Award in 3D Design

The Edexcel 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.

Edexcel 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

Edexcel BTEC Level 1 Certificate in 3D Design

The Edexcel BTEC Level 1 Certificate in 3D Design is a 30-credit and 180-guided-learning-hour (GLH) qualification.

To achieve the whole qualification, a learner must successfully complete **30 credits** from the following specialist optional units. A minimum of **20 credits** must come from Group A.

Edexcel BTEC Level 1 Certificate in 3D Design			
Unit	Specialist optional units – Group A (minimum 20 credits)	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
Unit	Specialist optional units - Group B (no minimum credit)		
6	Drawing Materials and Techniques	10	1
7	Creative Use of Materials, Techniques and Processes	10	1
8	Explore Artists' and Designers' Work	10	1
9	Presenting Creative Work	10	1

Edexcel BTEC Level 1 Diploma in 3D Design

The Edexcel BTEC Level 1 Diploma in 3D Design is a 60-credit and 360-guided-learning-hour (GLH) qualification.

To achieve the whole qualification, a learner must successfully complete **60 credits** from the following specialist optional units. A minimum of **40 credits** must come from Group A.

Edexcel BTEC Level 1 Diploma in 3D Design			
Unit	Specialist optional units – Group A (minimum 40 credits)	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
Unit	Specialist optional units - Group B (no minimum credit)		
6	Drawing Materials and Techniques	10	1
7	Creative Use of Materials, Techniques and Processes	10	1
8	Explore Artists' and Designers' Work	10	1
9	Presenting Creative Work	10	1

Edexcel BTEC Level 2 Award in 3D Design

The Edexcel BTEC Level 2 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.

Edexcel BTEC Level 2 Award in 3D Design			
Unit	Specialist optional units	Credit	Level
1	Spatial Design	10	2
2	Working with 3D Design Crafts Briefs	10	2
3	Working with 3D Design Briefs	10	2
4	Surface Decoration for 3D Design	10	2
5	Ceramics	10	2
6	Working with Site-specific Briefs	10	2

Edexcel BTEC Level 2 Certificate in 3D Design

The Edexcel BTEC Level 2 Certificate in 3D Design is a 30-credit and 180-guided-learning-hour (GLH) qualification.

To achieve the whole qualification, a learner must successfully complete **30 credits** from the following specialist optional units. A minimum of **20 credits** must come from Group A.

Edexcel BTEC Level 2 Certificate in 3D Design			
Unit	Specialist optional units – Group A (minimum 20 credits)	Credit	Level
1	Spatial Design	10	2
2	Working with 3D Design Crafts Briefs	10	2
3	Working with 3D Design Briefs	10	2
4	Surface Decoration for 3D Design	10	2
5	Ceramics	10	2
6	Working with Site-specific Briefs	10	2
Unit	Specialist optional units - Group B (no minimum credit)		
7	Product Design	10	2
8	Working with Built Environment Briefs	10	2
9	Vocational Contexts in Art and Design	10	2
10	2D Visual Communication	5	2
11	3D Visual Communication	5	2

Edexcel BTEC Level 2 Diploma in 3D Design

The Edexcel BTEC Level 2 Diploma in 3D Design is a 60-credit and 360-guided-learning-hour (GLH) qualification.

To achieve the whole qualification, a learner must successfully complete **60 credits** from the following specialist optional units. A minimum of **40 credits** must come from Group A.

Edexcel BTEC Level 2 Diploma in 3D Design			
Unit	Specialist optional units – Group A (minimum 40 credits)	Credit	Level
1	Spatial Design	10	2
2	Working with 3D Design Crafts Briefs	10	2
3	Working with 3D Design Briefs	10	2
4	Surface Decoration for 3D Design	10	2
5	Ceramics	10	2
6	Working with Site-specific Briefs	10	2
Unit	Specialist optional units - Group B (no minimum credit)		
7	Product Design	10	2
8	Working with Built Environment Briefs	10	2
9	Vocational Contexts in Art and Design	10	2
10	2D Visual Communication	5	2
11	3D Visual Communication	5	2

Assessment

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

Each unit within the qualifications 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 Edexcel BTEC Levels 1 and 2 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

Edexcel BTEC Levels 1 and 2 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 Edexcel BTEC Levels 1 and 2 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 Edexcel.

The Edexcel quality assurance processes will involve:

- centre approval for those centres not already recognised as a centre for BTEC qualifications
- approval for the Edexcel BTEC Levels 1 and 2 qualifications and units
- **compulsory** Edexcel-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 Edexcel 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 Edexcel BTEC Levels 1 and 2 qualifications are set out in centre guidance which is published on our website (www.edexcel.com).

Programme design and delivery

Mode of delivery

Edexcel does not normally define the mode of delivery for Edexcel 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

Edexcel BTEC Levels 1 and 2 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 Edexcel.

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 Edexcel BTEC Levels 1 and 2 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.

Additional and specialist learning

Additional and Specialist Learning (ASL) consists of accredited qualifications at the same level as, or one level above a 14-19 Diploma course of study, which have been approved under Section 96 of the Learning and Skills Act 2000. The ASL may include BTEC qualifications which are also available to learners not following a 14-19 Diploma course of study.

ASL qualifications are listed on the 14-19 Diploma Catalogue which is available on the Register of Regulated Qualifications (www.ofqual.gov.uk). The catalogue will expand over time as more qualifications are accredited and approved.

Centres undertaking, or preparing to undertake, ASL should refer regularly to the Edexcel website for information regarding additions and the 14-19 Diploma Catalogue for the latest information.

Access and recruitment

Edexcel'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 Edexcel'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 Edexcel BTEC Levels 1 and 2 in 3D Design are accredited on the QCF for learners aged 14 and above.

Access arrangements and special considerations

Edexcel'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 1995 Disability Discrimination Act and the amendments to the 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 Edexcel website (www.edexcel.com). This policy replaces the previous Edexcel 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.

Edexcel 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 Edexcel BTEC Levels 1 and 2 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

The unit title is accredited on the QCF and this form of words will appear on the learner's Notification of Performance (NOP).

Unit code

Each unit is assigned a QCF unit code that appears with the unit title on the National Database of Accredited Qualifications.

QCF level

All units and qualifications within the QCF will have a level assigned to them, which represents the level of achievement. There are nine levels of achievement, from Entry Level to Level 8. The level of the unit has been informed by the QCF level descriptors and, where appropriate, the NOS and/or other sector/professional benchmarks.

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 are defined as all the times when a tutor, trainer or facilitator is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. It also includes time spent by staff assessing learners' achievements. It does not include time spent by staff in day-to-day marking of assignments or homework where the learner is not present.

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 Edexcel to offer the qualification.
- *Indicative resources* – gives a list of learner resource material that benchmarks the level of study.

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Level 1 Units

Unit 1: 3D Design Crafts Processes

Unit code: D/602/0978

QCF 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:
<p>P1 explore a limited selection of 3D design craft materials, techniques and processes</p> <p>P2 develop a limited selection of ideas for 3D design crafts</p> <p>P3 produce an appropriate 3D design craft outcome</p> <p>P4 identify strengths and weaknesses of own 3D design work.</p>	<p>M1 explore a range of 3D design craft materials, techniques and processes</p> <p>M2 develop a range of effective ideas for 3D design crafts</p> <p>M3 produce an effective 3D design craft outcome</p> <p>M4 comment on the strengths and weaknesses of own 3D design work.</p>	<p>D1 confidently explore a wide range of 3D design craft materials, techniques and processes</p> <p>D2 develop a wide range of imaginative ideas for 3D design crafts</p> <p>D3 produce an imaginative 3D design craft outcome</p> <p>D4 comment with some detail on the strengths and weaknesses of own 3D design work.</p>

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 code: D/602/0429

QCF 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:
<p>P1 explore different 3D materials, techniques and processes</p> <p>P2 develop appropriate design ideas for 3D products</p> <p>P3 produce an appropriate design outcome for 3D products</p> <p>P4 comment on strengths and weaknesses of own design work.</p>	<p>M1 describe a range of 3D materials, techniques and process in some detail</p> <p>M2 develop considered design ideas for 3D products</p> <p>M3 produce a 3D design outcome that would be useable with minor alterations</p> <p>M4 explain the use of 3D techniques and processes in own work.</p>	<p>D1 evaluate a range of 3D materials, techniques and process in detail</p> <p>D2 develop well considered design ideas for 3D products</p> <p>D3 produce an effective 3D design outcome that is fit for purpose</p> <p>D4 explain in detail the use of 3D techniques and processes in own work.</p>

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 code: H/602/0982

QCF 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, sgraffito 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:
<p>P1 explore different materials for use with surface decoration</p> <p>P2 experiment with different basic techniques and finishes for surface decoration</p> <p>P3 use tools, equipment and technology for surface decoration appropriately</p> <p>P4 use specialist materials, techniques, and processes responsibly and safely.</p>	<p>M1 purposefully investigate a range of materials for use with surface decoration</p> <p>M2 competently experiment with a range of techniques and finishes for surface decoration</p> <p>M3 use tools, equipment and technology for surface decoration appropriately and competently</p> <p>M4 competently use specialist techniques, technologies and processes responsibly and safely.</p>	<p>D1 thoroughly investigate a wide range of materials for use with surface decoration</p> <p>D2 confidently experiment with a wide range of techniques and finishes for surface decoration</p> <p>D3 use tools, equipment and technology for surface decoration appropriately and skilfully</p> <p>D4 confidently use specialist techniques, technologies and processes responsibly and safely.</p>

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

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| 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 code: A/602/0986

QCF 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 COSHH 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:
<p>P1 investigate the different properties and characteristics of basic ceramic materials</p> <p>P2 experiment and explore making and building techniques using different clays</p> <p>P3 develop different decorating techniques using slips and glazes</p> <p>P4 work safely and responsibly with ceramic materials.</p>	<p>M1 methodically investigate different properties and characteristics of a range of ceramic materials</p> <p>M2 purposefully experiment with and explore a range of making and building techniques using different clays effectively</p> <p>M3 competently develop a range of decorating techniques using slips and glazes effectively</p> <p>M4 work competently, safely and responsibly with ceramic materials.</p>	<p>D1 thoroughly investigate different properties and characteristics of a wide range of ceramic materials</p> <p>D2 creatively experiment with and explore a wide range of making and building techniques using different clays skilfully</p> <p>D3 creatively develop a wide range of decorating techniques using slips and glazes skilfully</p> <p>D4 work confidently, safely and responsibly with ceramic materials.</p>

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 code: L/602/0989

QCF 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:
<p>P1 research and collect visual information related to the brief's topic or theme</p> <p>P2 produce work that meets the demands and requirements of the brief</p> <p>P3 use different 3D materials and techniques to produce an appropriate final outcome</p> <p>P4 present the finished work in an appropriate format.</p>	<p>M1 competently research and collect a range of visual information related to the brief's topic or theme</p> <p>M2 competently meet the demands and requirements of the brief</p> <p>M3 effectively use a range of different 3D materials and techniques to produce a final outcome</p> <p>M4 competently present the work in an appropriate format.</p>	<p>D1 thoroughly research and collect a wide range of visual information related to the brief's topic or theme</p> <p>D2 creatively meet the demands and requirements of the brief</p> <p>D3 creatively use a range of 3D materials and techniques to produce a final outcome</p> <p>D4 skilfully present the work in an appropriate format.</p>

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 <i>Crafts</i>
www.designcouncil.org.uk	Full of information, case studies and current practice
www.designnation.co.uk	Promotes British design internationally

Unit 6: Drawing Materials and Techniques

Unit code: J/601/8593

QCF Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to develop skills in the use of drawing materials and techniques and to apply these in their own work.

Unit introduction

In this unit learners will explore and develop basic drawing skills and discover what mark-making skills and drawing media can do. They will develop a visual vocabulary exploring basic materials and techniques. Learners will be made aware of the importance of observational drawing and develop skills in and knowledge of formal elements. They will learn the value of experimentation and exploration with mark-making and the importance of making observations when interpreting a subject. They will learn how to apply and develop these skills into creative visual work.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to use mark-making skills using drawing materials and techniques
- 2 Be able to use observational drawing skills when working from primary and secondary sources
- 3 Be able to use formal elements when working from primary and secondary sources
- 4 Be able to explore expressive drawing techniques.

Unit content

1 **Be able to use mark-making skills using drawing materials and techniques**

Mark-making processes: eg wet, dry, collage, montage

Drawing materials: working characteristics eg dry (pencils, graphic pens, pastels, charcoal, Conté), wet (paints, marker pens, inks); papers eg cartridge, sugar, tissue, tracing, card

Drawing techniques: eg frottage, hatching, crosshatching, blending, impressing, sgraffito, pen, wash, wax resist, photocopy, drawing, collage, mixed media; creating effects eg textures, tone, pattern

Health and safety: responsible studio practice; safe use of equipment; adherence to COSHH guidelines

2 **Be able to use observational drawing skills when working from primary and secondary sources**

Drawing devices: eg mark-making, negative space, one-point perspective, asymmetry, simple measuring, viewfinders, space frames, enlarging, formal elements

Primary sources: eg observation, natural forms, landscapes, built environment, human form, man-made structures, artefacts, objects, own photos, own drawings, sketches

Secondary sources: visual references eg books, magazines, postcards, photos, photocopies, videos, internet, exhibitions, museums

3 **Be able to use formal elements when working from primary and secondary sources**

2D formal elements: eg line, shape, tone, colour, pattern, texture, scale, proportion, symmetry, asymmetry, balance, focal point, composition, perspective

Visual references: primary sources; secondary sources

Approaches: eg realistic, abstract, progressive, experimental

4 **Be able to explore expressive drawing techniques**

Expressive drawing techniques: response to stimuli eg music, smell, touch; ways of seeing eg viewpoints, angles, close-ups, distance, use of space frames, altering scale; formal elements eg line, shape, tone, colour, pattern, texture, scale, proportion, perspective

Exploration: eg drawing materials, mixed media, techniques

Recording processes: eg annotations, discussions, appropriate language, terminology, responses, approaches

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:
<p>P1 explore mark-making skills using different drawing materials and techniques</p> <p>P2 explore observational drawing skills when working from primary and secondary sources</p> <p>P3 explore formal elements when working from primary and secondary sources</p> <p>P4 explore different expressive drawing techniques.</p>	<p>M1 explore a range of mark-making skills with effective use of drawing materials and techniques</p> <p>M2 purposefully and competently explore observational drawing skills when working from a range of primary and secondary sources</p> <p>M3 explore formal elements effectively when working from a range of primary and secondary sources</p> <p>M4 effectively explore a range of expressive drawing techniques.</p>	<p>D1 explore a wide range of mark-making skills with creative use of drawing materials and techniques</p> <p>D2 creatively and confidently explore observational drawing skills when working from a wide range of primary and secondary sources</p> <p>D3 explore formal elements confidently and creatively when working from a wide range of primary and secondary sources</p> <p>D4 imaginatively explore a wide range of expressive drawing techniques.</p>

Essential guidance

Delivery

This unit will provide the opportunity to introduce learners to basic drawing skills and allow them to develop their observational skills by exploring materials and techniques and ways of approaching drawing work. Practical drawing activities could take place both in the studio and out of doors. It would be beneficial to learners for tutors to demonstrate how to use materials and techniques where possible. Learners should develop an appreciation of experimentation in order to broaden their understanding of drawing. Learners should become accustomed to recording drawing materials, techniques, methods used and opinions through annotations.

Where necessary learners will need to be advised of, and adhere to, appropriate aspects of current legislation associated with health and safety practices in the studio or workspace and should observe appropriate COSHH guidance material.

Assessment

Evidence for this unit will come from practical drawing and mark-making activities associated with art, craft or design. Much of this will involve exploration through the use of formal elements and a variety of methods and materials, using black and white and colour. Evidence should come in the form of an experimental/work in progress sketchbook, although some final outcomes could be possible. It will also come from discussion with the learner about the formal elements used in their own work. Annotations made to the work provide useful, but not essential, back-up evidence but could serve as evidence of learners' acknowledgement of health and safety procedures.

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

Access to studio space suitable for observational and experimental drawing and for mark-making activities is essential for this unit together with a range of appropriate materials and equipment. Library and learning facilities, which enable learners to access examples of drawing in art, design and craft should be made available. Access to a photocopier would also prove useful.

Indicative resources

Textbooks

Edwards B — *The New Drawing on the Right Side of the Brain* (Harper Collins, 2001)
ISBN 978-0007116454

Edwards B — *The New Drawing on the Right Side of the Brain Workbook: Guided Practice in the 5 Basic Skills of Drawing* (Souvenir Press, 2003)
ISBN 978-0285636644

Kaupelis R — *Experimental Drawing Techniques* (Watson-Guptill Publications, 1992)
ISBN 978-0823018226

Kaupelis R — *Learning to Draw: A Creative Approach to Drawing*
(Watson-Guptill Publications, 1989) ISBN 978-0823026760

Nicolaides K — *The Natural Way to Draw* (Andre Deutsch, 1972)
ISBN 978-0233963440

Simpson I — *Encyclopaedia of Drawing Techniques* (Headline, 1987)
ISBN 978-0747200513

Simpson I — *Drawing, Seeing and Observation* (A & C Black, 1982)
ISBN 978-0713622113

Stanyer P and Rosenberg T — *A Foundation Course in Drawing*
(Watson-Guptill Publications, 2003) ISBN 978-0823018687

Wright M — *DK Art School: Introduction to Mixed Media* (Dorling Kindersley, 1999)
ISBN 978-0789443021

Journals

Artists' Newsletter

Creative Review

Unit 7: Creative Use of Materials, Techniques and Processes

Unit code: R/602/0976

QCF Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to develop skills in using different techniques and processes to explore and experiment with media and materials.

Unit introduction

The intention of this unit is to explore both 2D and 3D materials, techniques and processes. Ideally this unit should be integrated with other practical units. The work generated in this unit may influence the final work produced within the other specialist areas. The experimental work should demonstrate the learner's skills and understanding. Whilst developing their work learners need to be made aware of the relevant health and safety requirements and COSHH guidance.

(This is a generic unit and should be contextualised through the specialist areas.)

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to explore different materials, techniques and processes
- 2 Be able to demonstrate the use of materials, techniques and processes in own work
- 3 Be able to review the suitability of selected materials, techniques and processes used in own work.

Unit content

1 **Be able to explore different materials, techniques and processes**

Materials: 2D eg papers, card, fabrics (natural, synthetic), yarns; 3D resistant eg glass,

perspex, aluminium (foil, sheet), wood, plastics, concrete, steel; 3D non-resistant eg clay, textiles, papier mâché, found materials, plastics

2D processes: eg printing (monoprinting, relief), tapestry, weaving, machine embroidery,

pigment printing, imprinting/transfer printing, painting, mixed media drawing, thumbnail

sketches, lens-based eg black and white photography, exposing, developing and printing

photo-sensitive films

3D processes: eg maquette making, armature construction, clay processes (hand building, wheel work, mould-making), sculptural processes (carving, shaping, forming), mixed media work, toiles, model making, paper engineering for realisation purposes

Mark-making: eg wet, dry, lens-based (photograms, pin-hole cameras), textiles (dyeing, printing, distorted weft), collage, montage, 3D shaping,

fabricating (carving, modelling, gluing, welding, riveting, tying)

Technological media: eg computers, scanners, cameras, photocopiers

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

2 **Be able to demonstrate the use of materials, techniques and processes in own work**

Selecting: appropriate materials eg 2D, 3D, resistant, non-resistant; techniques; processes

Tools and equipment: painting eg brushes, paint (gouache, acrylic, oil, watercolour), canvas, board; drawing eg pencils, pastels (hard, soft), charcoal, papers (cartridge, sugar, tissue, tracing, card); design work eg spatial (rulers, technical drawing instruments, drawing boards), printing (rollers, lino blocks, cutting tools), clay work (modelling tools, banding wheels, potter's wheel, kilns), textiles (fabrics, dyes, needles, pins, sewing machines), wood working (saws, hammers, drills, chisels, nails, screws), paper-based (scissors, blades, guillotine, glues)

Experimentation: creative potential eg materials, techniques, processes, limitations; experimental techniques eg combining (materials, processes), testing, sample pieces; design development eg research, generating ideas, sketchbook work, drawings, maquette making, reviewing, refining

3 Be able to review the suitability of selected materials, techniques and processes used in own work.

Review: evaluate suitability eg materials, techniques, processes, alternative combinations;

aesthetic qualities; fitness for purpose

Comment: describe working processes eg successes, disappointments; assess results eg strengths, weaknesses, opportunities for improvement; appropriateness eg techniques, processes, materials, aesthetics, fitness for purpose; explain decisions eg suitability (materials, techniques, processes)

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:
<p>P1 experiment with different materials, techniques and processes</p> <p>P2 use materials, techniques and processes in own work</p> <p>P3 review the suitability of selected materials, techniques and processes used in own work.</p>	<p>M1 methodically experiment with a range of materials, techniques and processes</p> <p>M2 effectively use a range of materials, techniques and processes in own work</p> <p>M3 coherently review the suitability of selected materials, techniques and processes in own work.</p>	<p>D1 purposefully experiment with a wide range of materials, techniques and processes</p> <p>D2 creatively use a wide range of materials, techniques and processes in own work</p> <p>D3 critically review the suitability of selected materials, techniques and processes in own work.</p>

Essential guidance

Delivery

Learners achieving this unit in their chosen pathway will develop their knowledge, skill and understanding of the materials, techniques and processes normally associated with the nature of the vocational discipline. Exploration of a variety of materials, techniques and processes will enable learners to consolidate their learning. Learners will need to be advised of, and adhere to, all aspects of current legislation associated with health and safety practices in the studio or workplace. Tutors should encourage learners to develop an experimental approach. When describing the suitability of different materials, techniques and processes learners should be invited to discuss, and comment on, success and/or failure with regard to the 'fitness for purpose' or quality of the work produced.

Assessment

The main purpose of this unit is the exploration and application of skills and an integrated approach should be encouraged as this unit can 'feed' into or enhance work produced in other units. Exploration may arise from the needs of a given situation but may also be stimulated by curiosity, extending a developing personal style. Learners should expect to produce a range of work that demonstrates a broad experimentation with related materials, techniques and processes.

Evidence should include annotated sketchbook work showing development of design ideas, technical notes, samples, test pieces and finished work. Evidence of awareness of appropriate health and safety regulations may be in the form of annotations. Learners should be able to describe and reflect upon the exploratory work undertaken and the 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 will vary according to the specific technical and material demands of the learners' work.

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

Cole D — *1000 Patterns* (A&C Black Limited, 2003) ISBN 978-0713667165

Fiell C and P — *Designing the 21st Century* (Taschen, 2005) ISBN 978-3822848029

Herbert T and Huggins K — *The Decorative Tile* (Phaidon Press Limited, 2000) ISBN 978-0714839790

Mills J — *Encyclopaedia of Sculptural Techniques* (B T Batsford Ltd, 2005) ISBN 978-0713489309

Powers A — *Nature in Design* (Conran Octopus, 2002) ISBN 978-1840912579

Smith R — *The Artist's Handbook* (Dorling Kindersley, 2003) ISBN 978-0789493361

Terraroli V — *Skira Dictionary of Modern Decorative Arts* (Skira Editore, 2001) ISBN 978-8884910257

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

Willacy D M — *Craft & Design in Wood* (Nelson Thornes, 1987) ISBN 978-0748710669

Journals

Artists Newsletter

Crafts

Creative Review

Websites

www.craftscouncil.org.uk National development agency for contemporary crafts – exhibitions and register of craft workers

www.caa.org.uk Contemporary Applied Arts gallery – exhibitions of contemporary crafts

www.vam.ac.uk Victoria and Albert Museum – art and design museum

Unit 8: Explore Artists' and Designers' Work

Unit code: J/602/0991

QCF Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to gain the investigative, recording and presentation skills required to carry out a visual enquiry from primary and secondary sources.

Unit introduction

This unit involves investigating and exploring the work of other artists, craftspeople and designers and their influences. This can be a broad investigation or it can be specific to a specialist art and design pathway. The aim of the unit is that it is primarily a visual enquiry which encourages learners to investigate a range of historical and contemporary art, craft and design work. They will develop the skills needed to find, organise, select and record their information, which should be from primary and secondary sources. This research is intended to provide inspiration when developing their own work. This unit should be taught alongside and integrated with other practical units. Learners will be encouraged to develop their own responses to the research and develop appropriate presentation skills.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to investigate the work of others and the influences of historical and contemporary art and design developments
- 2 Be able to record information from primary and secondary sources
- 3 Be able to develop own responses to the work of other artists, craftspeople and designers
- 4 Be able to present information.

Unit content

1 **Be able to investigate the work of others and the influences of historical and contemporary art and design developments**

Work of other artists and designers: contemporary; historical; key movements eg styles, schools, individuals; Western; non-Western cultures

Influences: technical eg formal elements, materials, techniques, processes; cultural influences eg social, political, personal, global, contemporaries, literature, media

2 **Be able to record information from primary and secondary sources**

Primary sources: observational drawing, photography, recordings from first-hand observation eg trips, visits, digital recording, annotation, commentary

Secondary sources: visual information eg images, clippings, buildings, photographs, books, work of others, poetry, music, leaflets, brochures, postcards, notes, photocopies, books, magazines, journals; digital sources eg recordings from interviews with people, internet sources, videos, CD ROMs

3 **Be able to develop own responses to the work of other artists, craftspeople and designers**

Own response: visual eg mark-making, formal elements, 2D materials, 3D materials, digital, web-based, photographic, written, oral

4 **Be able to present information**

Present information: developmental work eg drawings, notes, photographs, sketchbooks, research findings, discussion notes, recordings, factual information, personal response

Evaluation: eg what the artist or designer made or makes, what formal elements have been used, how visual language has been used, how the work was made, materials, techniques and processes used by the artist

Presentation: eg spoken, visual, written, performed, 2D, 3D, digital

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:
<p>P1 investigate the work of different artists and designers and the influences of historical and contemporary art and design developments</p> <p>P2 record information from a range of different primary and secondary sources</p> <p>P3 produce own responses developed from research into the work of different artists, craftspeople and designers</p> <p>P4 present information in an appropriate format.</p>	<p>M1 competently investigate the work of different artists and designers and identify the influences of historical and contemporary art and design developments</p> <p>M2 competently record information from a range of primary and secondary sources</p> <p>M3 competently develop and produce own responses to the work of other artists, craftspeople and designers researched</p> <p>M4 present information in an appropriate format with some skill.</p>	<p>D1 confidently investigate the work of different artists and designers and identify the influences of historical and contemporary art and design developments</p> <p>D2 confidently record information from a wide range of primary and secondary sources</p> <p>D3 confidently develop and produce own responses to the work of other artists, craftspeople and designers researched</p> <p>D4 present information in an appropriate format with skill.</p>

Essential guidance

Delivery

This unit should be a creative, practical, visual enquiry, which involves looking at and making direct responses to the work of historical and contemporary artists and designers. Investigations can be broad, or subject specific and should focus on the techniques and materials used by the artist and the context in which the work studied has been produced.

Assessment

This unit is assessed through evidence in learners' portfolios. Visual records about the chosen artist and the information about the work and its background are the two areas that will be required as evidence for assessment. Learners should also include a personal response to the work studied. Assessment can be based on a creative combination of written and visual information.

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

Learners should have access to background information about the work of others. This may be obtained through a combination of printed and searchable sources as well as visits to galleries, museums, workshops, visits from guest artists, object handling sessions and skill building workshops.

Indicative resources

Textbooks

Langmuir E — *The Yale Dictionary of Art and Artists* (Yale University Press, 2000)
ISBN 978-0300064582

Murray L and Murray P — *The Penguin Dictionary of Art and Artists* (Penguin, 2007)
ISBN 978-0140513004

Smith R— *The Artist's Handbook* (Dorling Kindersley, 2009) ISBN 978-1405348775

Journals

Arts Journal

The Art Newspaper

Websites

- | | |
|--|---|
| www.apollo-magazine.com | Online version of <i>Apollo</i> magazine, giving an up-to-date view on contemporary arts |
| www.arthistory.about.com | A website offering links to useful sources of information on historical and contemporary artists |
| www.craftscouncil.org.uk | This website includes access to a list of current designers and makers, and a searchable image bank called Photostore |

Unit 9: Presenting Creative Work

Unit code: H/602/0478

QCF Level: 1

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to acquire skills in selecting and presenting their own creative work.

Unit introduction

In this unit learners will explore both formal and informal methods of presentation. This may include verbal presentations, illustrated presentations, portfolio presentation, exhibition techniques and digital presentations.

It is intended that this unit be taught alongside other practical units so that learners have the opportunity to learn how to present their work to its best advantage. Presentation methods may include, for example, framing, mounting, portfolio presentations, digital and reprographic techniques, displays, exhibitions, CD, projection, poster presentations.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to select creative work for presentation
- 2 Be able to use materials and techniques to present selected creative work
- 3 Be able to comment on own creative work.

Unit content

1 **Be able to select creative work for presentation**

Purpose of presentation: eg written report, website, interview, exhibition, show, television programme

Selection of work for illustrated presentations: consideration of work; availability of work; consideration of purpose; consideration of audience

2 **Be able to use materials and techniques to present selected creative work**

Presentation techniques: eg reviews, reports, oral presentation, audio-visual presentation, electronic presentation, portfolio; planning of presentation eg sketches, design plans, ordering of materials, arranging venue; restraints of selected presentation media and situations

Situations: formal eg job interview, client presentation, exhibition, formal presentation to peers; informal eg classroom display

Health and safety: cutting; adhesives; COSHH

3 **Be able to comment on own creative work**

Format: eg sketchbook, mounted work, annotations, written notes, video diary, illustrated oral presentations

Work: eg strengths, weaknesses, processes, technical issues, skills development, future improvements, suitability for intended purpose, impact, aesthetics

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:
<p>P1 select some creative work for presentation</p> <p>P2 use appropriate materials and techniques to present selected creative work</p> <p>P3 identify strengths and weaknesses of own presentation work.</p>	<p>M1 select creative work for presentation which shows range of own work</p> <p>M2 use materials and techniques effectively to present selected creative work</p> <p>M3 comment on the strengths and weaknesses of own presentation work.</p>	<p>D1 select creative work for presentation that shows an informed understanding of the requirements of the presentation</p> <p>D2 use materials and techniques imaginatively to present selected creative work</p> <p>D3 comment with some detail on the strengths and weaknesses of own presentation work.</p>

Essential guidance

Delivery

This unit needs to be taught alongside or subsequent to a practical unit in order for learners to have outcomes to present. Learners should be encouraged to discuss and question the appropriateness of materials, techniques and proposed presentation methods.

Learners need to present work in both formal and informal situations. Formal presentations of final outcomes to peers followed by a public display of mounted work would meet these requirements and help build confidence and self-esteem in the learner. Alternatively, learners may present their portfolio of work to a client/panel in a mock interview situation in order to prepare them for employment or progression on to higher level courses.

Assessment

Evidence for assessment should be provided through ongoing workshop/classroom observation, ongoing critical feedback and submission of final photographic outcomes presented in an appropriate format for formal and informal situations.

Learners should also keep a record of decisions taken affecting the selection of materials, techniques and presentation methods they use. This may be in the form of a simple diary, log, sketchbook or work journal. Learners should be encouraged to make this evidence as visually stimulating as possible.

Video or audio recordings of presentations would provide excellent evidence with the additional benefit of allowing playback to the learner for further reflection on their own performance.

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 include mounting and exhibition materials, studio tools and equipment, and digital media with associated hardware and software.

Indicative resources**Textbooks**

Boylan B — *What's Your Point? The 3-Step Method for Making Effective Presentations* (Adams Media Corporation, 2001) ISBN 978-1580624602

Comfort J and Utley D — *Effective Presentations* (Oxford University Press, 1995) ISBN 978-0194570893

Finkelstein E et al — *A Beginner's Guide to Creating Effective Presentations with PowerPoint* (Po Po press, 2007) ISBN 978-0615158068

Oppenheim S — *Portfolios That Sell: Professional Techniques for Presenting and Marketing Your Photographs* (Amphoto Books, 2003) ISBN 978-0817455439

Journals

Creative Review

Design Week

Level 2 Units

Unit 1: Spatial Design

Unit code: A/602/0728

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

This unit will enable learners to acquire analytical and developmental skills when working in spatial design to produce a practical solution in response to a design brief.

Unit introduction

Learners will acquire knowledge of the aesthetics of space (in relation to human scale) and the ergonomics of design through practical work in response to design briefs. They will develop skills in design, drawing and model making. Spatial design requires the ability to communicate 3D/spatial structures through 2D drafting media, increasingly using CAD systems. Learners will explore designs, experiment with use and function of space/s and understand how to respond to spatial design briefs and how to present their work. They will be introduced to materials, construction techniques and processes required for their chosen area of spatial design together with the associated health and safety requirements.

Learning outcomes

To achieve this unit a learner must:

- 1 Know how to analyse spatial design briefs
- 2 Be able to develop ideas and final outcomes in relation to human scale
- 3 Be able to use 3D construction techniques and processes
- 4 Be able to review the development of own work.

Unit content

1 Know how to analyse spatial design briefs

Analysis of brief: establishing requirements eg client preferences, function (commercial, domestic interiors, retail displays, exhibition design); understanding restrictions eg technical factors (scale, weight, strength, cost, production methods), functional considerations (size, ease of use, durability; structural elements, ergonomics)

Research: precedents eg historical, contemporary, cultural, other designers, design projects (commercial, domestic); primary sources eg observations, objects, artefacts, own photos, own drawings, sketches, photographs, natural forms, manmade structures, landscapes, built environment; secondary sources eg visual references (books, magazines, postcards, photos, videos, internet, exhibitions, museums)

2 Be able to develop ideas and final outcomes in relation to human scale

Ideas generation: eg brainstorming, mood boards, rough sketches, collages, maquettes, samples, test pieces, free association, lateral thinking

Design considerations: fitness for purpose eg materials (properties, characteristics, effects, uses, limitations, creative potential), techniques, processes, value for money, durability; ergonomics eg human scale, size, effect on user, structural elements; aesthetics eg visual qualities, appearance (materials, surface finishes, colour, texture, light)

Design development: manipulating space eg use of structural elements, light (natural, artificial), colour, ergonomics, scale; 2D visuals eg preliminary studies, sketches, drawings, colour work, collage, mood boards; 3D visuals eg perspective drawing (one point, two point), orthographic projections (isometric, axonometric), CAD drawings; 3D constructions eg exploratory models, maquettes, prototypes; alternative options

Presenting final outcomes: response to brief eg verbal commentary, use of terminology; measured drawings eg plans, elevations, orthographic projections, perspective drawings (one point, two point); visuals eg mood boards, onscreen, photographs, installation, sketchbooks; 3D products eg models, maquettes, prototypes

3 Be able to use 3D construction techniques and processes

Exploring 3D constructions: eg maquettes, models, prototypes, recording results (construction notes, photos, drawings)

Exploring 3D techniques and processes: eg cutting, carving, forming, moulding, surface finishing, joining, assembling, recording results (notes, photos, drawings)

Exploration of materials: eg non-resistant materials (plaster, card, paper, lightweight wood, string, soft wire, plastic sheet, glues, adhesives), resistant materials (metals, wood, wood-based products, rigid plastics); creative potential; limitations; fitness for purpose

Health and safety: elimination of risk to self and others; safe studio practice; COSHH guidance on materials

4 **Be able to review the development of own work**

Reviewing work: initial ideas eg context, source material, influences; working methods eg design development, materials, techniques, processes, testing ideas; final outcomes eg strengths, weaknesses, success, failure, appropriateness (materials, techniques, processes), fitness for purpose, response to brief, aesthetics, quality of work

Review methods: eg describe, discuss, select, review, reject, refine, re-present; use of appropriate design language; use of correct terminology

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:
<p>P1 analyse the requirements of spatial design briefs</p> <p>P2 develop ideas and a final outcome in relation to human scale</p> <p>P3 apply different 3D construction techniques and processes</p> <p>P4 review the development of own ideas, concepts and working methods.</p>	<p>M1 competently analyse the requirements of spatial design briefs</p> <p>M2 purposefully develop a range of ideas and an effective final outcome in relation to human scale</p> <p>M3 purposefully apply a range of 3D construction techniques and processes</p> <p>M4 review with some detail the development of own ideas, concepts and working methods.</p>	<p>D1 confidently analyse the requirements of spatial design briefs</p> <p>D2 independently develop a wide range of ideas and an imaginative final outcome in relation to human scale</p> <p>D3 creatively apply a wide range of 3D construction techniques and processes</p> <p>D4 review with substantial detail the development of own ideas, concepts and working methods.</p>

Essential guidance

Delivery

This unit has been designed to provide an opportunity for learners to undertake focused projects in the specialist area of spatial design. Typically this would be through briefs that reflect current commercial practice. Learners will need to be introduced to the materials, construction techniques and processes required for the chosen area of spatial design. They need to be able to select suitable materials, techniques and processes to realise ideas and respond to briefs. Learners need to review the materials, techniques and processes they use and discuss and comment on properties and characteristics together with their success and/or failure. They will need to adhere to all aspects of current legislation associated with health and safety practices in the studio or workplace and should follow the appropriate COSHH guidance.

Assessment

The assessment of this unit should be through observation, ongoing critique and presentation of work undertaken in response to project briefs. Evidence should document the complete design process from initial research and analysis through development and exploration to the final outcome. It may be in the form of annotated sketchbook work, drawings (technical, conceptual), mood boards, computer imagery, sketch and presentation models, evaluations (verbal, written) and final outcomes. Work should be appropriately presented and displayed according to the media and techniques employed in the production of the work. Learners will need to learn the appropriate language and terminology in order to review the success and/or failure of their working methods, use of materials and techniques and the quality and aesthetics of their work.

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 studios and workshops will be required, equipped with resources and materials for drawing and model making including drawing tables with parallel motions and set squares.

Access to computers with vector graphics, illustration, 3D and modelling software to industry standard should be available. Access to library resources, including specialist texts, CD ROMs and journals on the history and development of spatial design should be available to all learners taking this unit.

Indicative resources

Textbooks

Ching F — *Architecture: Form, Space & Order* (John Wiley & Sons Limited, 1987)
ISBN 978-0442215354

Ching F — *Architectural Graphics* (John Wiley & Sons Limited, 2009)
ISBN 978-0470399118

Ching F — *Interior Design Illustrated* (John Wiley & Sons Limited, 1987)
ISBN 978-0471288683

Fiell C and P — *1000 Chairs* (Taschen, 2000) ISBN 978-3822857601

Fiell C and P — *Designing the 21st Century* (Taschen, 2001) ISBN 978-3822858838

Martin C — *The Surface Texture Book* (Thames & Hudson, 2005)
ISBN 978-0500511619

Massey A — *Interior Design of the 20th Century* (Thames & Hudson, 1990)
ISBN 978-0500202470

Pile J F — *History of Interior Design* (Laurence King Publishing Limited, 2000)
ISBN 978-185669200

Powers A — *Nature in Design* (Conran Octopus, 2002) ISBN 978-1840912579

Terraroli V — *Skira Dictionary of Modern Decorative Arts* (Skira Editore, 2001)
ISBN 978-8884910257

Wilhide E — *Materials* (Quadrille Publishing Ltd, 2001) ISBN 978-1903845110

Journals

Architectural Review

Blueprint

Design Week

Websites

www.architecture.com	Royal Institute of British Architects – exhibitions etc
www.buildingcentre.co.uk	Material, product and technical information and guidance
www.craftscouncil.org.uk	National development agency for contemporary crafts

Unit 2: Working with 3D Design Crafts Briefs

Unit code: F/502/4866

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

This unit explores working in 3D design crafts, a broad area that can cover furniture, jewellery and accessories, mixed media, automata, metalwork, woodwork, glass, plastics and ceramics. Learners will need to be able to research, explore and develop ideas to make 3D design craft, using either self-negotiated or given briefs.

Unit introduction

Design craft workers employ a process of designing and making objects which can be decorative or functional. Designing and making skills are combined to produce considered and developed items. In many cases successful creative practitioners will be skilled in more than one material and may combine materials in their work. Learners should explore a range of materials and techniques to provide sufficient evidence for assessment.

Learners will carry out research from a range of primary and secondary sources appropriate to their brief. A valuable part of their research will be to learn what a contemporary professional craft worker does and the range of possible materials and techniques they employ to communicate their ideas effectively. Learners will explore historical and cultural 3D design crafts to underpin their research and development of ideas. Wide-ranging research will inspire learners to be innovative and creative in their approach to designing and making. Visits to galleries, museums and workshops, and from visiting lecturers will help broaden learners' understanding of the breadth of design crafts. Investigation into the contemporary craft scene, both in the UK and internationally will give learners an insight into the current vocational context of design crafts and their importance to the economy.

Learners will be encouraged to explore the crossover of form and function and to analyse their design ideas for fitness for purpose. Learners should be encouraged to combine materials in order to develop a range of skills. Research skills will be contextualised through the design process and learners will have the opportunity to develop evaluative skills through analysis of their design throughout the process.

This unit can be linked with other units in order to develop a broad range of transferable and relevant skills.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to research and record primary and secondary sources in response to 3D design crafts briefs
- 2 Be able to explore and develop ideas to meet 3D design crafts briefs
- 3 Be able to use 3D design crafts materials, techniques and processes
- 4 Understand the successful characteristics and quality of 3D design crafts work.

Unit content

1 **Be able to research and record primary and secondary sources in response to 3D design crafts briefs**

Research: primary research eg drawings, sketches, taking photographs; secondary research eg photocopies, collecting ready-made resources

Recording: materials eg graphite, charcoal, pen, ink, wash, oil pastels, chalks, handmade tools, cameras; techniques, processes eg painting, drawing, montage, collage, photography, video, digital scanning, manipulation, printmaking, modelling, interview notes, recorded interviews with makers, annotation in sketchbooks; formal elements eg line, tone, form, colour, texture, pattern

Sources: primary eg first-hand observation drawings, own photographs, studios, museums, galleries, exhibitions, poetry, music; secondary eg images, clippings, websites, photographs, journals, photocopies, postcards, leaflets, books, magazines, blogs, CD ROMs

2 **Be able to explore and develop ideas to meet 3D design crafts briefs**

Explore and develop ideas: eg use research material, inform ideas, others; work, idea generation, experimenting, testing, planning, reviewing, refining, design process; formal elements, visual language, creating, communicating, design ideas; recording, presenting findings, appropriate formats eg drawings, notes, samples, sketchbooks, design sheets; annotate, design ideas; fitness for purpose, viability of designs, constraints, opportunities

Design crafts briefs: artefact eg jewellery, furniture, accessory, automata, ceramics, metalwork, woodwork, glass, plastics, one-off, set; technical factors eg type, properties, characteristics, materials, costs, scale of production, time, performance, fit; specialist markets eg retailers, craft fairs, studio potters, tourism, locations, heritage, collectors, demographics, nostalgia, anniversaries, commemoration, events, concerts, mementos

3 **Be able to use 3D design crafts materials, techniques and processes**

3D materials: non-resistant materials eg plaster, clay, card, paper, balsa wood, string, wire, modroc, papier mache, felt, fabrics; resistant materials eg metal, wood, MDF, ply, chipboard, perspex, glass, found objects

3D techniques and processes: making eg cutting, carving, construction, joining, bonding, fusing, drilling, stitching, weaving, forming, moulding, finishing

Health and safety: Health and Safety Act 1974, elimination of risk to self and others; thinking and working safely within a studio environment; COSHH guidance on materials and techniques

4 Understand the successful characteristics and quality of 3D design crafts work

Discuss: eg annotated worksheets, sketchbooks; taped recordings of discussions, explanations, descriptions, comments; evaluations, tutorials, spoken word, video, face to face, individual, group crit; technical and art terms eg art, craft, design processes, qualities

Characteristics: analysis eg alternative options; exploring properties, effects, uses, limitations, creative potential; suitability eg image purpose, factors, opportunities, constraints (time, access, props, specialist equipment, other resources, budget, content), presentation; others' projects eg similar briefs, commercial, professional, success (projects, campaigns, influence)

Quality: eg comparison with other work, original intentions, aesthetic qualities, technical qualities, sustainability, strengths, weaknesses, areas for improvement; documentation eg notes, minutes of meetings, notes from feedback, production diaries

Assessment and grading criteria grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all 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:
<p>P1 research and record primary and secondary sources in response to 3D design crafts briefs</p> <p>P2 develop ideas and outcomes to meet 3D design crafts briefs</p> <p>P3 use 3D design crafts materials, techniques and processes safely</p> <p>P4 discuss successful 3D design crafts work.</p>	<p>M1 conduct effective research and record appropriate visual and other information from primary and secondary sources in response to 3D design crafts briefs</p> <p>M2 develop coherent ideas and outcomes to meet 3D design crafts briefs</p> <p>M3 explore 3D design crafts materials, equipment and techniques effectively</p> <p>M4 compare and contrast experimental, development and final creative works.</p>	<p>D1 independently research and record diverse visual and other information from primary and secondary sources in response to 3D design crafts briefs</p> <p>D2 develop imaginative ideas and outcomes to meet 3D design crafts briefs</p> <p>D3 explore diverse 3D design crafts materials, equipment and techniques imaginatively and independently</p> <p>D4 evaluate experimental, development and final creative works.</p>

Essential guidance

Delivery

This unit provides the learners with the opportunity to work in any area of 3D design crafts such as ceramics, jewellery, sculpture, textiles and glass (the learner may work in one or several areas of 3D design crafts, for example ceramics, or ceramics and glass). The current climate for contemporary craft is lively and exciting and learners should be encouraged to explore current practice and look at the work of contemporary practitioners to support their research.

Learners should be encouraged to investigate the creative use of media and materials within a craft context. The range of media, materials, techniques and technology that the learners explore should enable them to investigate an area of personal preference. The breadth of experience will depend on the centre's resources.

Learners should be taught:

- how to research and collect information
- the specialist techniques and processes required for the different craft areas
- how to use and look after specialist tools and equipment correctly – health and safety
- how to develop ideas into a resolved final outcome.

This unit has been designed to provide an opportunity for learners to undertake focused projects in the specialist area of 3D design crafts. The briefs should have a clear starting point, a period of experimentation and development, resolution and evaluation. Typically this would be through briefs that reflect current commercial and professional practice. Depending on the choice of specialist materials, briefs could combine work in different specialist areas such as furniture, jewellery and accessories.

Learners will need to be advised of, and adhere to, all aspects of current legislation associated with health and safety practices in the studio or workplace. Learners should follow appropriate COSHH guidance.

Learners need to be able to choose suitable material, techniques and processes to realise their ideas and respond to briefs. They should be encouraged to explore non-traditional media and to combine different materials and techniques to develop their ideas. Their 3D experimental work should be evidenced through trials, samples, test pieces and maquettes. Work produced can be functional or decorative.

Learners should continuously evaluate their progress through reviewing the materials, techniques and processes they use, discussing and commenting on the properties and characteristics of the media employed. They should also learn to critically evaluate the quality of their achievement, documenting their opinions on what worked well or not and why, in response to their brief. Strong evaluation skills and an understanding of how they have learned will help these learners to progress from a Level 2 learner into a Level 3 learner.

Learners should be encouraged to keep all evidence of their studies in working sketchbooks, where they might record the development of their ideas, the effects and results of their experimentation with materials and techniques and how their skills might be improved. Regular feedback should be given to learners through day-to-day discussion and formal and informal interim assessment.

Learning outcomes 1, 2 and 3 can be integrated through practical studio experiences.

Learning outcome 4 should be integrated with learning outcomes 1, 2 and 3, through an ongoing review, evaluation and documentation of learners' exploratory studio work rather than just at the end. For learning outcome 1, learners will need to be encouraged to explore and investigate primary and secondary sources. They will need to be guided on their selection of sources in relation to the brief and to develop their recording skills, manipulating the formal elements to communicate observed qualities of forms. Learners will need to develop their skill and control in handling media for the purpose of recording from their selected sources. Although selection of materials, techniques and technology for the process of recording will depend on the individual centre's available resources, it is expected that learners have access to as broad a range as possible.

For learning outcome 2, learners need to be taught how to explore and develop ideas. They should learn to use the relevant research material to develop and create designs. Initially this outcome is likely to be delivered through discussion about potential ideas and demonstration, perhaps launching the brief through an inspiring presentation of slides/images. Tutors should encourage learners' participation in analysing the brief through asking probing questions and developing learners' creative ability in generating exciting, innovative ideas. Delivery techniques should be varied and stimulating, encouraging learners to investigate the creative use of techniques and technology within a design crafts context. Group activities would be beneficial at this level, with learners discussing and developing ideas around a set brief, looking at possible options for individual investigation. An inspiring visit or workshop from a recent arts graduate or established artist can also add validity to the learning experience. Learners may have quite different areas of personal preference they would like to investigate and they will need opportunities to experiment with approaches and methods individually, before meeting to share the results. Learners should plan and follow the stages of the design process and understand how formal elements and design principles can be used to create design ideas. They should produce a range of designs that show experimentation with materials and the formal elements and design principles.

Their findings should be recorded and presented in an appropriate format (for example drawings, notes, samples, design sheets). These can then be developed into 3D designs. Learners should be taught how to keep a balance between aesthetics and function, ensuring both elements are met. As well as their own exploratory work, off-site visits to workshops or contemporary exhibitions would motivate learners and provide a vocational context.

Learning outcome 3 should be delivered as an integrated part of both learning outcomes 1 and 2. For learning outcome 3, learners should be introduced to specialist products, techniques and processes and the development of their specialist skills, knowledge and understanding relevant to their sources and ideas for their 3D design crafts brief. Investigating 3D craft practitioners will enable learners to gain insight into how professionals work in 3D design crafts, what media they use and the techniques they employ, as well as helping them decide on the vocational direction in which they wish to go. The best way of doing this would be by visiting practitioners' studios.

For learning outcome 4, learners will need to be taught how to record, analyse, modify and refine ideas for their work and working processes. Learning outcome 4 is an opportunity for learners to reflect on their work while drawing parallels with the work of others. When reviewing outcomes learners need to take into account what the successes were, what the failures were, and why. They will need to consider and document the development of their ideas, the use of media and quality of final outcomes. If the learner has produced a working prototype then, as part of the evaluation, it is possible to carry out practical tests. This should allow a clear and objective assessment of the outcome.

When making modifications learners need to refine and clarify their intentions and working practices. These modifications need to be documented and the final outcome recorded using drawings, photographs, maquettes or video depending on the type or scale of work. Learners will need to be taught how to present their work to suit the finished piece and the environment that it is to be shown in. Presentation skills should be developed and can include the use of IT, for example, onscreen presentation, scanning sketchbook pages into *Photoshop* to produce design sheets, or using colour photocopies to enhance the quality of presentation sheets. Learners need to understand the importance of presentation techniques; they should consider the environment for the outcome, the construction and proportions of plinths or fixings and health and safety as well as fitness for purpose of the final outcome.

Assessment

Evidence for the achievement of learning outcome 1 could be a sketchbook or a design sheet annotating what materials might be used and the scale of the work.

Evidence for the achievement of learning outcome 2 might take the form of sketchbook, thumbnail studies, ideas worksheets or 3D tests and maquettes.

For learning outcome 3, learners' evidence might include a range of studies and samples that have been chosen to demonstrate their appropriate selection and use of 3D design craft materials, and use of techniques in response to the requirements of the brief.

Evidence for the achievement of learning outcome 4 could be integrated with the evidence for learning outcomes 1, 2 and 3. The evidence for learning outcome 4 might take the form of learners' annotated sketches and studies for initial recording and ideas together with notes on their achievement in their use of materials and techniques.

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

This unit can be delivered in a classroom as long as there is adequate access to a range of specialist techniques and materials. Learners will need access to appropriate specialist learning areas. Learners will also need storage for their outcomes as they develop during this unit. Assessment should be ongoing through the unit so that learners are given feedback to help them develop their outcomes and improve their skills. Assessment evidence on completion of this unit should include sketchbooks, design sheets, material samples, annotation and evaluation and final pieces which are clearly linked to research and design development.

Adequate resources, work and storage space should be provided for the 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 materials.

For clay: techniques such as hand building, modelling, throwing, press-moulding, slip casting and decorating. Whole processes such as preparing clay, hand-building, throwing and glazing.

For textiles: techniques such as embroidering, felting, weaving, knitting, printing, dying. Whole processes such as preparation of fabrics, pressing, creating a loom, applying decoration, creating items from textiles, finishing.

For wood: techniques such as cutting, preparing, joining, construction, piecing, turning, shaping and finishing, laminating. Whole processes such as selecting the type of wood most suitable for the intended purpose, making a cutting list, planning, cutting, shaping, joining, sanding and finishing.

For light metals: techniques such as cutting, preparing, joining, constructing, piecing, filing, turning, shaping, brazing, soldering, beating, polishing, applying surface decoration and textures.

Whole processes such as measuring and marking out, cutting out the basic shape, forming, annealing, joining to other forms, applying surface decoration, such as enamelling or soldering, cleaning, polishing and finishing.

For plastics: techniques such as cutting, line bending, forming and moulding, joining, laminating, constructing, piecing, shaping and finishing. Whole processes such as planning, measuring and marking out, cutting, drilling, creating and finishing. The tools and equipment that will be required will be those associated with the materials, techniques and processes applied.

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. They will also need library and internet access, visits to galleries, museums, exhibitions and working studios.

Indicative resources

Textbooks

Grey M — *Paper, Metal and Stitch* (Batsford Ltd, 2007) ISBN 978-0713490671

Lefteri C — *Materials for Inspirational Design* (RotoVision, 2006) ISBN 978-2940361502

Parnes T — *Jewellery and Accessories from Everyday Objects*
(Creative Publishing International, 2007) ISBN 978-1589233270

Pipes A — *Drawing for Designers* (Laurence King Publishing, 2007)
ISBN 978-1856695336

Polster B — *The A-Z of Modern Design* (Merrell Publishers Ltd, 2006)
ISBN 978-1858943305

Searle T — *Easy Felted Accessories* (Search Press Ltd, 2006) ISBN 978-1844481736

Searle T — *Fabric Jewellery: 25 Designs to Make Using Silk, Ribbon, Buttons and Beads*
(A&C Black, 2003) ISBN 978-0713686432

Journals

A-n Artist's Newsletter

Ceramic Review

Craft (published by the Crafts Council)

Selvedge Magazine

Websites

www.artscouncil.org.uk	The national development agency for the arts in the UK
www.craftscouncil.org.uk	The national development agency for contemporary crafts in the UK
www.designnation.co.uk	Resources for design, craftwork, textiles and fashion
www.the-artists.org	Resources on contemporary arts and artists
www.thedesigntrust.co.uk	Resources for designers

Unit 3: Working with 3D Design Briefs

Unit code: K/502/4862

QCF Level: 2

Credit value: 10

Guided learning hours:60

Unit aim

The aim of this unit is to enable learners to explore, experiment with, and understand how to respond to 3D design briefs. The unit will involve learners in carrying out research from a range of primary and secondary sources appropriate to their brief.

Unit introduction

Designers explore ideas, materials and techniques in response to self-defined or given briefs. In order to develop their professional skills, they work with different materials and experiment widely to explore the potential of a chosen medium and its suitability for the task. They research widely from different sources to gain inspiration to help them develop ideas. Professionals continuously review the progress of their work to ensure it meets their creative intentions and the requirements of the brief.

An essential capability of 3D design is the ability to communicate 3D structures through 2D drafting media, increasingly using digital software. A valuable part of a learner's research will be to learn what a contemporary 3D designer does and the range of possible materials and techniques they employ to communicate their ideas most effectively. Learners will investigate historical and cultural visual arts to explore similar resources and constraints. Their wide-ranging research will inform their understanding of how to use 3D materials and techniques to express their creative intentions. Learners will review the progress and refine the process of their work through ongoing and final analysis in response to the given briefs.

Learners will explore and experiment with a variety of non-resistant and resistant materials to investigate the manipulation, treatment and creative possibilities of 3D design materials and techniques. This will involve 3D making techniques for carving, constructing and modelling, essential for using different materials and techniques successfully. Learners will need to learn about the care of and correct use of specialist 3D tools and equipment. They will also be made aware of the health and safety issues associated with the materials and techniques they study.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to use 3D design materials, techniques and processes
- 2 Be able to develop ideas to meet 3D design briefs
- 3 Understand the successful characteristics and quality of 3D design work.

Unit content

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

3D design processes: planning, making eg construction, carving, moulding, drilling, fixing, joining, casting, CAD/CAM, weaving, assembling

3D materials: eg non-resistant materials (plaster, card, paper, lightweight wood, string, soft wire, plastic sheet, glues and adhesives), resistant materials (glass, metals, wood, wood-based products and rigid plastics)

Health and safety: Health and Safety Act 1974, elimination of risk to self and others; thinking and working safely within a studio environment and following the appropriate COSHH guidance on materials and techniques

2 Be able to develop ideas to meet 3D design briefs

3D design briefs: products eg ceramics, furniture, lighting, consumer and electrical goods, industrial products, interiors, environments, retail displays, exhibitions; analysis of briefs, response eg target market, needs, preferences; functions eg technical factors, size, scale, performance, ease of use, cost, method, scale of production

Selecting materials and techniques: qualities eg fitness for purpose, aesthetics, alternative options; exploring properties eg characteristics, effects, uses, limitations, creative potential

Meeting the brief: eg artefact purpose, factors, opportunities, constraints (time, access, working materials, specialist equipment, other resources, budget, content), presentation; others' projects eg similar briefs, community, commercial, professional, success (projects, audience, influence)

3 Understand the successful characteristics and quality of 3D design work

Characteristics: analysis eg alternative options; exploring properties, effects, uses, limitations, creative potential; suitability eg image purpose, factors, opportunities, constraints (time, access, props, specialist equipment, other resources, budget, content), presentation; others' projects eg similar briefs, commercial, professional, success (projects, campaigns, influence)

Quality: eg comparison, original intentions, aesthetic qualities, technical qualities, sustainability, strengths, weaknesses, areas for improvement; own work, others' work

3D design work: own work, others' work eg peers, professionals

Assessment and grading criteria grid

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all 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:
<p>P1 use 3D design materials, techniques and processes safely</p> <p>P2 select appropriate materials, techniques and processes to meet 3D design briefs</p> <p>P3 develop ideas and outcomes to meet 3D design briefs</p> <p>P4 discuss successful 3D design work.</p>	<p>M1 explore 3D design materials, techniques and processes effectively</p> <p>M2 develop effective, coherent ideas and outcomes to meet 3D design briefs</p> <p>M3 compare and contrast experimental, development and final creative works.</p>	<p>D1 integrate diverse 3D design materials, techniques and processes creatively and independently</p> <p>D2 develop imaginative ideas and outcomes to meet 3D design briefs</p> <p>D3 evaluate experimental, development and final creative works.</p>

Essential guidance

Delivery

Tutors could teach this unit through two assignments. The first could be based on a discussion of examples of 3D design work across a range of disciplines with learners recording observations in their work journals or sketchbooks. Learners could then source for themselves and comment on additional examples of 3D design. Information gathered from this exercise would be the platform from which learners launch their own practical explorations for a personal project which would form the second assignment.

For this second assignment learners will need to record all the stages of their research and design development work. Tutors should direct learners to produce a plan for their work, including production methods, materials and timescales. Information on health and safety will also need to be included. On completion of this activity, tutors should sign off the plan and learners can then move to the practical production stage. Tutors will need to ensure that learners have access to technical support and that all aspects of health and safety are carefully observed.

Evaluative monitoring and reviewing will need to feature throughout the assignment, as learners will need to consider their practical output against the constraints of the design brief they have worked to. They may consider how effectively their outcomes meet the purpose of the brief. Learners should review their use of materials and techniques and compare them to the production processes they researched. In this way the activity will return learners to the skills and understanding required when analysing and interpreting a design brief.

Assessment

Evidence for achievement of learning outcome 1(P1) may be taken from learners' sketchbooks, worksheets and final products, along with witness observations.

Evidence for achievement of learning outcome 2 (P2 and P3) will be the final outcomes, supported by documentation of ideas development presented on worksheets, sketchbooks and in sample products.

Evidence for achievement of learning outcome 3 (P4) could be written notes, a report, a presentation, notes in a studio log, or video diaries.

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

Delivery of this unit will focus on learners exploring research through an initial assignment. This will be followed up with ideas development and practical production against a set or self-generated 3D design brief.

Learners will need access to specialist 3D design studios, depending on the range available in the centre. They will also require access to specific technical support within the 3D area.

Learners should incorporate safe working practices into their learning as part of the practical work in the unit.

Indicative resources

Textbooks

Butler J et al — *Universal Principles of Design: 100 Ways to Enhance Usability, Influence Perception, Increase Appeal, Make Better Decisions and Teach Through Design* (Rockport Publishers Inc, 2007) ISBN 978-1592530076

Fiell C and P — *Designing the 21st Century* (Taschen, 2005) ISBN 978-3822848029

Mills J — *Encyclopedia of Sculptural Techniques* (B T Batsford, 2005)
ISBN 978-0713489309

Norman D A — *Emotional Design* (Basic Books, 2005) ISBN 978-0465051366

Terraroli V — *Skira Dictionary of Modern Decorative Arts* (University of Turin, 2001)
ISBN 978-8884910257

Websites

www.designmuseum.org The Design Museum website

Unit 4: Surface Decoration for 3D Design

Unit code: F/602/0732

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

This unit aims to give learners an opportunity to develop skills in surface pattern techniques and their potential applications.

Unit introduction

Surface decoration combines the qualities of texture, pattern and colour to create surface decoration finishes. This unit gives learners the opportunity to explore the creative possibilities of a range of surface decoration techniques which could be applied to a variety of surfaces such as interiors, sculptures, ceramics and jewellery. Learners will be encouraged to research a range of visual sources and explore formal elements of surface pattern through drawing and painting. They will need to develop skills using a range of materials by exploring and experimenting with different techniques and processes to create surface decoration.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to research from primary and secondary visual sources
- 2 Be able to investigate and experiment with formal elements and principles of surface decoration
- 3 Be able to develop ideas using materials, techniques and finishes in surface decoration
- 4 Be able to review own surface decoration work.

Unit content

1 **Be able to research from primary and secondary visual sources**

Primary sources: eg first-hand observations, drawings from visits to museums and galleries, the built environment, the natural environment

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

Record research: eg sketches, drawings, photographs, annotations, photocopies, tape recordings

2 **Be able to investigate and experiment with formal elements and principles of surface decoration**

Formal elements: eg line, colour, texture, tone, structure, proportion, pattern, scale, balance, movement

Design principles: eg composition, perspective systems, square, half drop, brick repeats

3 **Be able to develop ideas using materials, techniques and finishes in surface decoration**

Materials: mark-making eg pencil, charcoal, oil pastel, coloured pencils, chalk pastels; dry materials eg photographic images, yarns, fabrics, threads, chicken wire, paper, plastics, cards, metal, glass, wood, lino; found materials eg aluminium cans, plastic bags, electricity cable, grasses, twigs, sawdust, plaster, pebbles; wet materials eg inks, dyes, paints, stains, plaster, clay, slips; mixed media

Surface embellishment: techniques eg collage, montage, embossing, resist distressing, washing spraying, blending; textile finishes eg embroidery, felting, weaving; texturing eg wax resist, splattering, rolling, stencilling, marbling, graining, printing, embossing, moulding, printing eg monoprint, stencil, collagraph, transfer and screen printing, potato printing, string printing

Assembly: eg cutting, joining, carving, construction

Tools and equipment: eg brushes, knives, tjantings, sewing machines, saws, chisels, gouges, sanders, drills, hand looms, lino cutting tools, lino blocks, perspex sheets, ink rollers, tile cutters, modelling tools, slip trailers, wax resist scrafitto tool, grainers, rollers, sponges, rags

Technology: eg graphic technologies, photography, scanners, computers

Health and safety: Health and Safety Act 1974, elimination of risk to self and others; thinking and working safely within a studio environment; COSHH guidance on materials and techniques

4 Be able to review own surface decoration work

Feedback: eg audience, peers, teachers

Outcomes: technical qualities; aesthetic qualities; achievement of intentions

Process: skills development; self-organisation (time management, logistics)

Present: format eg sketchbook workbook, exhibition, electronic file, website; annotations; evaluative statements

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:
<p>P1 produce research from primary and secondary visual sources</p> <p>P2 investigate formal elements and principles of surface decoration</p> <p>P3 develop ideas by using different materials, techniques and finishes in surface decoration</p> <p>P4 discuss own experimental and developmental creative works drawing some conclusions.</p>	<p>M1 use primary and secondary visual sources to produce some relevant research findings</p> <p>M2 experiment with formal elements and principles of surface decoration</p> <p>M3 develop workable ideas by experimenting with a range of surface decoration materials, techniques and finishes</p> <p>M4 evaluate ideas and processes drawing some relevant and considered conclusions.</p>	<p>D1 independently select and use primary and secondary visual sources to produce considered research findings</p> <p>D2 creatively experiment with formal elements and principles of surface decoration</p> <p>D3 develop creative ideas by experimenting skilfully with a wide range of surface decoration materials, techniques and finishes</p> <p>D4 evaluate ideas and processes confidently drawing some insightful and well informed conclusions.</p>

Essential guidance

Delivery

This unit provides learners with the opportunity to experiment with and explore surface decoration using a varied and extensive range of materials and techniques. The learners should be encouraged to extend their use of visual language into a surface design/decoration context. It will enable the learner to extend their experiences of working with materials, techniques and technology. The learner should become familiar with the visual characteristics and physical properties of the materials that they choose to work with.

Assessment

Evidence for the achievement of learning outcome 1 could be a file of research with research log, a sketchbook or a notebook.

Evidence for the achievement of learning outcome 2 might take the form of sketchbooks, thumbnail studies, ideas worksheets, tests and maquettes.

For learning outcome 3, evidence will be learners' final outcomes.

The evidence for the achievement of learning outcome 4 might take the form of learners' annotated sketches and studies for initial recording and ideas together with notes on their achievement in the use of materials and techniques.

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.

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

Indicative resources

Textbooks

- Cole D — *1000 Patterns* (A&C Black Limited, 2003) ISBN 978-0713667165
- Eberle B — *Creative Glass Techniques* (A&C Black Limited, 1997)
ISBN 978-1581806045
- Fiell C and P — *Industrial Design A-Z* (Taschen, 2000) ISBN 978-3822850572
- Herbert T and Huggins K — *The Decorative Tile* (Phaidon, 2000)
ISBN 978-0714839790
- Ostermann M — *The Ceramic Surface* (A&C Black Limited, 2002)
ISBN 978-1408113394
- Scott P — *Ceramics and Print* (A&C Black Limited, 2002) ISBN 978-0713674910
- Scott P — *Painted Clay* (A&C Black Limited, 2001) ISBN 978-0713647549
- Skinner K — *Paint Effects Bible* (Firefly Books, 2003) ISBN 978-1552977187
- Terraroli V — *Skira Dictionary of Modern Decorative Arts* (Skira Editore, 2001)
ISBN 978-8884910257
- Thackery B — *Paper Making: Decorating and Designing* (Conran Octopus, 2001)
ISBN 978-1840911244

Journals

- Arts Review*
- Ceramic Review*
- Creative Review*
- Design Week*

Websites

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| www.designcouncil.org.uk | The Design Council website |
| www.metmuseum.org/works_of_art/introduction.asp?dep | The Metropolitan Museum website |
| www.vam.ac.uk | The Victoria and Albert museum website |

Unit 5: Ceramics

Unit code: R/602/0735

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

This unit is designed to give the learners the opportunity to investigate and explore the creative potential of clay and the associated materials and techniques.

Unit introduction

This unit is designed to encourage the learner to investigate and explore the creative potential of clay and the associated materials and techniques through practical tasks. Learners will be introduced to the idea of experimenting with different making and decorating techniques and exploring the different processes of firing. Ceramics includes a wide range of processes and production methods ranging from individual pieces of work to commercial mass-produced items. Learners should explore techniques and materials through practical studies to produce samples and outcomes, and use research to discover about the wider context of ceramics.

Learning outcomes

To achieve this unit a learner must:

- 1 Understand the different properties and characteristics of ceramic materials
- 2 Be able to experiment with making and building techniques using different clays
- 3 Be able to use decorating techniques using slips and glazes
- 4 Be able to present own ceramics work with evaluation.

Unit content

1 **Understand the different properties and characteristics of ceramic materials**

Origins of clay: eg igneous, metamorphic rocks, primary and secondary clays

Different types of clay: earthenware; stoneware; porcelain; crank; casting slip

Ceramic materials: raw ingredients eg oxides, body stains, powdered clay, glaze ingredients, grog, sand, plaster; glazes eg low fire, high fire, engobe, raku, oxidation, reduction, on-glaze enamels, under-glaze stains; firings eg temperatures, rates, electric, gas, sawdust, bisque, glost, raku; properties eg colour, texture, strength, firing range, porosity, shrinkage

2 **Be able to experiment with making and building techniques using different clays**

Making and building: forming; modelling; carving; slab; coiling; pinching; joining; press moulding; rolling; cutting; incising

Production methods: eg throwing, casting, pressing, mould-making

Experimenting with different bodies: adding different materials to the clay body eg paper, grog, fabric, texture, stains, oxides

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

Slip decoration: techniques eg wax resist, paper resist, masking, sgraffito decoration, marbling, trailing, inlay, agateware

Impressed and relief decoration: using tools eg stamps, wood blocks, sprigs, found objects, sprig moulds, combing

Glaze techniques: application eg dipping, spraying, brushing; mixing glazes; using oxides eg maiolica decoration; experimental glazes eg raku glazes, lustres, sawdust firing; types of glaze firing eg bisque, earthenware, stoneware, porcelain, raku, sawdust, salt, soda, wood firing

Health and safety: safe storage of tools and clay; cleaning procedures; safety clothing and equipment; safe glazing processes; firing procedures; legislation

4 **Be able to present own ceramics work with evaluation**

Outcomes: technical qualities; aesthetic qualities; achievement of intentions

Process: what went well and why; what went badly and why; techniques and processes used; test results; technical information; skills development; self-organisation

Format: eg sketchbook annotations, written notes, samples, test pieces, models, verbal feedback, tape recordings, video recordings, witness statements, illustrated oral presentations

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:
<p>P1 describe the different properties and characteristics of ceramic materials</p> <p>P2 produce straightforward experiments in making and building techniques using different clays in a safe and responsible manner</p> <p>P3 produce straightforward experiments in decorating techniques using slips and glazes in a safe and responsible manner</p> <p>P4 present own ceramic work with an evaluation of its strengths and weaknesses.</p>	<p>M1 describe in some detail the different properties and characteristics of a range of ceramic materials</p> <p>M2 produce purposeful experiments that explore a range of making and building techniques using different clays</p> <p>M3 produce purposeful experiments that explore a range of different decorating techniques using slips and glazes</p> <p>M4 present own ceramic work competently with some detail in the evaluation of its strengths and weaknesses.</p>	<p>D1 describe with substantial detail the different properties and characteristics of ceramic materials</p> <p>D2 produce creative experiments that explore a wide range of making and building techniques using different clays</p> <p>D3 produce creative experiments that explore a wide range of different decorating techniques using slips and glazes</p> <p>D4 present own ceramic work confidently with substantial detail in the evaluation of its strengths and weaknesses.</p>

Essential guidance

Delivery

The emphasis in this unit is on exploration and experimentation. Learners should explore and investigate the nature of ceramic materials and understand what they are capable of. Learners will need specific technical and theoretical support and should be encouraged to keep all evidence of their work in a sketchbook along with the samples, tests and experiments, discussing and developing the results.

Assessment

Learners should focus on developing research, design and making skills and exploring and developing the different areas. This unit is assessed through work in the learners' portfolios and their final outcomes, workshop observations and samples of experiments.

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 digital media with associated hardware and software, studio tools and equipment and related journals and reference materials. This is a workshop-based unit and learners will need access to ceramics tools, equipment and materials.

Indicative resources

Textbooks

Connell J — *The Potter's Guide to Ceramic Surfaces: A Practical Directory of Ceramic Surface Decoration Techniques, Plus Guidance on How Best to Use Them* (Apple Press, 2002) ISBN 978-1840923605

Martin A — *The Essential Guide to Mould Making and Slip Casting* (Lark Books, 2007) ISBN 978-1600590771

Watkins J and Wandless P — *Alternative Kilns and Firing Techniques: Raku - Saggar - Pit - Barrel* (Lark Books, 2007) ISBN 978-1579909529

Journals

Ceramic Review

Craft and Design

Crafts

Websites

www.ceramicreview.com	Website for <i>Ceramic Review</i> and the Craft Potters Association, full of technical information and contemporary and historical practice
www.craftanddesign.co.uk	A comprehensive overview of contemporary craft makers and the crafts sector
www.studiopottery.co.uk	A comprehensive list of potters and ceramicists

Unit 6: Working with Site-specific Briefs

Unit code: R/502/4872

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is for learners to understand what a site-specific brief is and what opportunities and constraints artists or designers have to take into consideration when working with site-specific artwork. Learners will design, justify and create their own site-specific outcome.

Unit introduction

Site-specific art is artwork created to exist in a certain place. Typically, the artist takes the location into account while planning and creating the artwork. Public art is accessible to the public whereas site-specific art can be situated in remote and inaccessible spaces. Creating artwork to be placed somewhere specific can be an exciting task. Artists need to consider the intended audience, the space they can work with, if the work will look effective within the surrounding urban or natural landscape, and how permanent the materials will be in the particular environment. If the work is not permanent it will need to be documented with video or photography.

Many towns and cities, and more rural areas, include public artwork in their environment. Learners should be encouraged to consider and critically examine existing work, both historical and contemporary, as they may find it inspiring.

Learners should experiment and become familiar with the processes involved in creating site-specific artwork and develop their work through drawings and sketches, to maquettes and final pieces.

Practical investigations should form the basis of this unit, with learners investigating different techniques and developing proposals for their own work. Learners' experiments and investigations should be recorded, so their process and development is clear. Importance should be placed on the requirements of the brief, use of materials and consideration of the proposed location.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to use materials, techniques and technology for site-specific briefs
- 2 Be able to plan and develop ideas for a site-specific brief
- 3 Understand the successful characteristics and quality of work for site-specific briefs.

Unit content

1 **Be able to use materials, techniques and technology for site-specific briefs**

Materials: planning eg design sheets, drawings, sketches, sketchbooks, brainstorming, thumbnail sketches, testing, maquettes, plan drawings of chosen site, photographs of chosen site, mood boards; producing eg wood, stone, metal, ceramic, plaster, wire, found materials, projections, ephemeral materials, architecture, landscape

Techniques: consultation eg feedback from residents, locals, workplace, spectators, displays, outlines, visualisations, photographic montage; making eg carving, moulding, forming, shaping, joining, construction, modelling, fixing, rearranging, painting, performance, landscaping, indoor, experimental

Processes: eg low impact, temporary, permanent, environmental, recycling, renewable energy, regeneration, locally available materials, tools, machinery

2 **Be able to plan and develop ideas for a site-specific brief**

Plan a site-specific project: planning eg locations (urban, industrial, natural, public, remote), opportunities, funding, size, effect, material, stability, moveable parts, health and safety; intentions eg brief, personal, community involvement; resources eg local materials, in situ, recycled, machinery, people, skills; opportunities eg criteria for success, risk assessments, permissions, ownership

Briefs: eg interior, new build, environmental, regeneration, mock-up, visualisation, scale model

Outcomes: scale models eg maquettes, card, wood, acrylic, clay, plaster, plasticine, wire, paper, modroc, textiles, glass, wax, stone, scrap materials, found objects, ceramics, visualisation; full size eg construction, sculpture, land art, stone work, leaf and soil creations, installation, ice sculpture, water and snow, tree bark, logs, twigs, found objects, natural, manufactured

3 **Understand the successful characteristics and quality of work for site-specific briefs**

Development of own and others' work: compared with original intentions; technical qualities; aesthetic qualities; limitations, opportunities

Characteristics: analysis eg alternative options; exploring properties, effects, uses, limitations, creative potential; suitability eg purpose, factors, opportunities, constraints (time, specialist equipment, other resources, budget, content), presentation; others' projects eg similar briefs, commercial, professional, success (projects, campaigns, influence)

Production process: technical competencies; creative abilities; time management

Sources of information: self-evaluation; comments from others eg audience, peers, tutors, client; documentation eg notes from tutorials, annotation, notes from audience feedback, production diaries

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all 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:
<p>P1 use site-specific materials, techniques and processes safely</p> <p>P2 develop straightforward ideas and outcomes for site-specific briefs</p> <p>P3 select materials, techniques and processes for site-specific briefs</p> <p>P4 discuss successful work for site-specific briefs.</p>	<p>M1 explore materials, techniques and processes effectively</p> <p>M2 purposefully present coherent ideas for site-specific briefs</p> <p>M3 compare and contrast experimental, development and final creative works.</p>	<p>D1 integrate diverse materials, techniques and processes creatively and independently</p> <p>D2 independently present imaginative ideas and outcomes for site-specific briefs</p> <p>D3 evaluate experimental, development and final creative works.</p>

Essential guidance

Delivery

This unit builds on and develops learners' knowledge and understanding and seeks to broaden their skills in 3D development and materials. The learning experiences from the unit involve:

- understanding what a 'site' is and recording it
- exploring a theme
- planning own work
- producing maquettes
- exploring materials and techniques
- presenting work.

Tutors delivering this unit should give learners opportunities to visit the site and record it in many ways. An understanding of how light and weather will affect the artwork (if outside) should be discussed. Size, material and health and safety should be integral in forming part of the learner's knowledge for this unit; for example, a large, sharp metal sculpture in a primary school would not be practical, and a lightweight tissue paper sculpture on top of a hill may not have durability.

Tutors delivering this unit should give learners opportunities to investigate a wide range of materials, techniques and tools. Most of the learners' work will be carried out in a studio or workshop environment where they should be able to participate in highly-directed sessions and be shown demonstrations of how to use various materials and development techniques.

To contextualise this investigation and experimentation and to reinforce learning, teaching should include visits to galleries and, if possible, visits from professional practitioners. Learners should be directed towards examples of the work of others and be encouraged to research these and their own examples using the internet, libraries and multimedia sources. This will inform learning by encouraging analytical skills.

This unit should be delivered to provide a very broad introduction to a wide range of materials, for example card, clay, plasticine, wire, wood, modroc, plaster relief, ceramic tiles, metals, natural forms, withies, leaves, soil, grass, glass and found objects. The equipment needed to teach the techniques associated with these materials must be available, for example carving tools, wire cutters, plaster equipment, clay tools, wood cutting and sanding tools, adhesives and different fixing materials, cameras, scanners and video cameras.

Tutors could consider integrating the delivery and assessment of this unit with any other relevant units the learner is taking as part of the programme of study, especially those requiring 3D materials. In planning delivery of the assignment briefs tutors should be aware of the need to track the relevant learning outcomes of the units being covered.

Health and safety issues must be stressed, particularly when learners are in workshops using metal and woodcutting, construction and fixing techniques. Teaching of the correct use of relatively dangerous hand tools, for example drills, saws, knives etc, should be part of the workshop activity.

In learning outcome 1 learners will be working more practically using maquettes and experimenting with different materials. They will benefit from demonstrations of scaling-up work and working from plan drawings. Learners should use digital manipulation or photomontage to see if their chosen design looks effective in the specific space. They should then develop this idea into a maquette, initially in a lightweight easy-to-use material such as card, then evaluate if it is successful. Learners should then start to experiment with different materials.

Learning outcome 2 should be delivered after researching and viewing work from other artists/designers who work to site-specific briefs. So that learners can look at the work of others, access to the internet is expected. Learning outcome 2 could be completed after a visit to the chosen site had taken place, as this would put the unit into context and may make it easier for the learner to understand what a site-specific brief is. Learners may not be able to create an actual site-specific piece of artwork so a high quality maquette and digital manipulation or photographic montage should accompany the work to show it in its final setting. Tutors should seek to place selected pieces of learners' work in site-specific places in nearby locations even if only temporarily, as this will extend learners' understanding and appreciation of site-specific artwork. Tutors should stress the importance of a final outcome and the finish and presentation of all final work.

It is suggested that some activities, particularly those that are more complex, be repeated in response to a variety of sources to vary outcomes and improve motivation. Tutors should encourage learners to analyse the way in which a variety of materials and techniques work separately and in combination using a range of processes. Learners are expected to discuss their activities with the tutor using the correct technical terminology.

In learning outcome 3 the learner will need to understand the constraints on artists/designers when working to site-specific briefs. This is where the tutor has the opportunity to really engage in discussion with the learners; using presentations and discussing a variety of work would be extremely beneficial, showing a range of work from mosaics, to non-permanent land art to large-scale steel sculptures. Showing work from around the world will help learners to understand how land art is popular and has been for a long time. Showing examples of local artwork will help learners to put site-specific artwork into context, for example mosaics on library walls, figure sculptures of important people, interesting water fountains, large-scale modern sculptures etc. Learners will need to show that they understand the restrictions artists/designers have to work with and present their findings in some way. This could be in the form of written work, or a mood board or sketchbook format with examples of sculptures and notes added showing different restrictions for different pieces or artwork.

The support that learners need will vary according to their ability but all learners will need assistance in producing and presenting their individual responses for the unit.

Assessment

Evidence for achievement of learning outcome 1 (P1) could consist of a portfolio of evidence containing written reports, documentation of practical experiments, an audio-visual presentation, or an oral presentation.

Evidence for achievement of learning outcome 2 (P2 and P3) might be taken from learners' sketchbooks or worksheets, with annotations showing how each artist has approached their chosen site differently, or from class discussions. Evidence for P3 specifically will be a final outcome whether it be a large-scale piece of work or a finished maquette.

Evidence for achievement of learning outcome 3 (P4) could be in the form of written work or presentations, or discussions with the tutor using witness statements.

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 majority of learners' work will be carried out in the studio using 2D and/or 3D materials and equipment. It would be helpful to include visits to the 'site' and also to galleries, exhibitions, websites etc.

For this unit learners should have access to appropriate studio and workshop equipment. Depending on the materials the learner is using, this may include plaster, cardboard, clay, wire, wood and different metals. It would be beneficial if the learner had access to photographic equipment to produce photographic montage or digital manipulation.

Indicative resources

Textbooks

Drathen D — *Rebecca Horn: Moon Mirror - Site-Specific Installations* (Hatje Cantz, 2005) ISBN 978-3775791878

Kaye N — *Site-Specific Art: Performance, Place and Documentation* (Routledge, 2000) ISBN 978-0415185592

Kwon M — *One Place After Another: Site-specific Art and Locational Identity* (MIT Press, 2004) ISBN 978-0262612029

Lydenberg R — *Gone: Site-specific Work by Dorothy Cross* (Chicago University Press, 2005) ISBN 978-1892850096

Pearson L — *Public Art Since 1950* (Shire Publications Ltd, 2006) ISBN 978-0747806424

Rugg J — *Exploring Site-specific Art: Issues of Space and Internationalism* (I B Tauris & Co Ltd, 2009) ISBN 978-1848850644

Van Mourik Broekman P — *Locus Solus: Site, Identity and Technology in Contemporary Art* (Black Dog Publishing, 2001) ISBN 978-1901033618

Websites

www.bewsgorvin.co.uk/	Public sculpture website
www.denarend.com/works/sculptures/index.htm	Public sculpture website
www.griendingdesigns.com/Pages/commissions.html	Public sculpture website
www.lyciatrouton.com/	Online sculptor portfolio

Unit 7: Product Design

Unit code: T/602/0730

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to enable learners to investigate the creative use of media and materials to produce design outcomes within a product design context.

Unit introduction

This unit will encourage learners to research, explore and develop ideas for product design. This should include research from primary and secondary sources, experimenting and creating design ideas from findings, communicating how ideas can be realised and evaluating the process and final outcomes. Working in product design involves the functional side of the design and production of objects. We come into contact with the outcomes of product design every day because the majority of product designers work in industries where their designs are mass produced from the toothbrush to the car. In contrast the craftsperson produces more individual pieces.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to research and record primary and secondary sources in response to a product design brief
- 2 Be able to develop ideas for product design
- 3 Be able to use 3D materials and techniques experimentally for product design
- 4 Be able to present and evaluate own product design work.

Unit content

1 **Be able to research and record primary and secondary sources in response to a product design brief**

Primary sources: observation eg natural forms, landscapes, built environment, human form, manmade structures, artefacts, objects, own photos, own drawings, sketches, response to external stimuli (visual, tactile), exhibitions, museum displays

2 **Be able to develop ideas for product design**

Ideas generation: eg brainstorming, rough sketches, collages, maquettes, samples, test pieces, free association, lateral thinking

Design considerations: fitness for purpose eg materials (properties, characteristics, effects, uses, creative potential), techniques, processes, value for money, durability; ergonomics eg scale, size, effect on user, structural elements; aesthetics eg appearance (materials, surface finishes, colour, texture), visual qualities (reflective, non-reflective, rough, smooth, shiny, matt); function eg furniture, domestic ware, architectural detailing, fixtures, fittings, equipment (electrical, electronic), accessories; formal elements; design principles; limitations eg resources, technical ability, budget

3 **Be able to use 3D materials and techniques experimentally for product design**

Experimentation: creative potential eg materials, techniques, processes, limitations; experimental techniques eg combining (materials, processes), testing, sample pieces; design development eg sketchbook work, drawings, maquettes, model making

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

4 **Be able to present and evaluate own product design work**

Recording: 2D eg notes, photos, drawings, annotations, photographs, video; 3D eg maquettes, models, modifications, final outcomes

Evaluating work: initial ideas eg context, source material, influences; working methods eg design development, materials, techniques, processes, testing ideas; analysing results eg strengths, weaknesses, success, failure, opportunities for refinement (modification, adapting), appropriateness (materials, techniques, processes), alternative combinations; response to brief eg outcomes against intentions, fitness for purpose (function, form), aesthetic qualities, quality of work

Evaluation method: eg describe, discuss, select, assess results, clarify intentions, reject, refine, re-present, practical tests (prototypes); use of appropriate design language; use of correct terminology

Presentation: considerations eg format, environment, plinths (construction, proportions), fixings, lighting, budget, health and safety; practical work eg samples, prototypes

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:
<p>P1 research and record appropriate primary and secondary resources in response to a product design brief</p> <p>P2 develop straightforward ideas for product design</p> <p>P3 produce straightforward experiments for product design using appropriate 3D materials and techniques</p> <p>P4 present own product design work with an evaluation of its strengths and weaknesses.</p>	<p>M1 competently research and record a range of primary and secondary resources in response to a product design brief</p> <p>M2 develop a range of effective ideas for product design</p> <p>M3 produce purposeful experiments for product design using a range of 3D materials and techniques competently</p> <p>M4 present own product design work competently with some detail in the evaluation of its strengths and weaknesses.</p>	<p>D1 thoroughly research and record a wide range of primary and secondary resources in response to a product design brief</p> <p>D2 develop a wide range of creative ideas for product design</p> <p>D3 produce creative experiments for product design using a wide range of 3D materials and techniques with skill</p> <p>D4 present own product design work confidently with substantial detail in the evaluation of its strengths and weaknesses.</p>

Guidance

Delivery

This unit provides learners with the opportunity to work in any area of product design such as furniture (chairs, beds, tables etc), fixtures and fittings (kitchen/ bathroom fixtures etc), domestic ware (cutlery, tableware etc), electrical (toasters, kettles etc), electronic equipment, architectural detailing (door handles, light switches etc) and accessories (mobile phones, bags, pens).

Learners should be encouraged to take an experimental approach in the use of media and materials within a product design context. The range of materials, techniques and technology that the learners explore should enable them to investigate an area of personal preference. Learners will need to produce models and/or mock-ups and prototypes for 3D products. They should be taught how to research and collect information, the specialist techniques and processes required and how to record and evaluate the final outcomes. Learners will need to be advised of, and adhere to, all aspects of current legislation associated with health and safety practices in the studio or workplace.

Assessment

Learners should focus on developing research, design and making skills and exploring and developing the resources available to them. This unit is assessed through work in the learners' portfolio and final outcomes. Evidence should include annotated sketchbook work showing development of design ideas, technical notes, maquettes, models, samples, prototypes and finished work. Evidence of awareness of appropriate health & safety regulations may be in the form of annotations. When describing the suitability of different materials, techniques and processes learners should be invited to discuss, and comment on, success and/or failure with regard to the 'fitness for purpose' or quality of the work produced.

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 the 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, clay, wood, light metals, plastics etc.

The techniques and processes will be those associated with the choice of materials.

For clay: techniques such as hand building, modelling, throwing, press-moulding, slip casting and decorating. Whole processes such as preparing clay, hand building, throwing, decorating and glazing.

For textiles: techniques such as embroidering, felting, weaving, knitting, printing, dyeing. Whole processes such as preparation of fabrics, pressing, creating a loom, applying decoration, creating objects from textiles, finishing.

For wood: techniques such as cutting, preparing, joining, construction, piecing, turning, shaping and finishing. Whole processes such as selecting the type of wood most suitable for the intended purpose, making a cutting list, planing, cutting, shaping, joining, sanding and finishing.

For light metals: techniques such as cutting, preparing, joining, constructing, piecing, filing, turning, shaping, brazing, soldering, beating, polishing, finishing, applying surface decoration and textures. Whole processes such as measuring and marking out, cutting out the basic shape, forming (annealing as necessary), joining to other forms, applying surface decoration, such as enamelling or soldering, braiding, cleaning, polishing and finishing.

For plastics: techniques such as cutting, line bending, forming and moulding, joining, constructing, piecing, shaping and finishing. Whole processes such as planning, measuring and marking out, cutting drilling, creating and finishing.

The tools and equipment that will be required will be those associated with the materials, techniques and processes applied.

For clay: clay tools, wheels, slip trailers, brushes 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 product/craft context, plus library and internet access. Visits to galleries, museums, exhibitions and working studios are recommended.

Indicative resources

Textbooks

Fiell C and P — *1000 Chairs* (Taschen, 2005) ISBN 978-3822841037

Heskett J — *Industrial Design* (Oxford University Press, 1981) ISBN 978-019520218X

Huygen F — *British Design: Image and Identity* (Thames & Hudson, 1989) ISBN 978-0500275580

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

Lefteri C — *Materials for Inspirational Design* (Rotovosion, 2006) ISBN 978-2940361502

Powell D — *Presentation Techniques* (Orbis, 1990) ISBN 978-0316912433

The following titles are available from:

EMA Model Supplies
58–60 The Centre
Feltham TW3 4BH

Industrial Model Building

Model Procedure Manual/Design Model Training Manual

Journals

Crafts

Creative Review

Design Magazine

Design Week

Eco Design

Fine Scale Modeller

Websites

www.designcouncil.org.uk Range of guides and free resources for teachers with information on broad range of design issues, education, events, case studies, how to work as a designer etc

www.designmuseum.org London's museum of international contemporary design

www.vam.ac.uk Victoria and Albert Museum – art and design museum

Unit 8: Working with Built Environment Briefs

Unit code: Y/602/1224

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

This unit will enable learners to gain analytical and developmental skills and understanding to produce creative design solutions when working within the constraints of built environment briefs.

Unit introduction

From cathedrals to cottages, shops to shelters and everything in-between the built environment impacts on all our lives all of the time and we all have a stake in it. The built environment encompasses both architecture and interior design – that is, both sides of the architectural envelope – and whether we are shopping, working, relaxing, engaging in sport and entertainment or at home every part of our lives is lived within the built environment and the design of this environment can have a significant impact, positive or negative, on our well being. Working with built environment briefs requires a response to the specific needs of a client or client group which in turn involves analysis and a dialogue to arrive at viable practical solutions. Learners will explore design ideas, uses and functions of space and how to present their work. They will acquire knowledge of the aesthetics of space (in relation to human scale) and the ergonomics of design through practical work in response to set briefs. Additionally learners should be made aware of building regulations, planning and listed building restrictions and energy issues. Developing a design methodology and communication skills are key and in order to successfully communicate 3D design concepts learners will develop their visualisation skills in sketching, collage, model making, measuring and surveying, space planning and 2D drafting media, possibly using CAD systems. Learners will need to be made aware of the health and safety issues associated with model making. They should develop, refine, justify and create their own final designs for presentation being mindful of how the constraints of the brief can impact on the outcome.

Learning outcomes

To achieve this unit a learner must:

- 1 Understand the requirements of built environment briefs
- 2 Be able to develop ideas in response to built environment briefs
- 3 Be able to experiment with materials, techniques and processes in response to built environment briefs
- 4 Be able to present own built environment work with evaluation.

Unit content

1 Understand the requirements of built environment briefs

Analysis of brief: establishing requirements eg client needs, client preferences, function, activities, aesthetics, budget, constraints, limitations, time frame; site analysis eg size, structural elements (pillars, posts, beams, stairs, changes in level), access routes, light sources (natural, artificial), services (water gas, electricity), ceiling heights, opening, fixtures

Visual analysis: activities eg flow charts, bubble charts, sketch plans; site eg survey sketches, plans, elevations, existing elements

Research: precedents eg historical, contemporary, cultural, other designers, commercial design projects, domestic design projects, case studies; primary sources eg observations, objects, artefacts, own photos, own drawings, sketches, photographs, natural forms, manmade structures, landscapes, built environment; secondary sources eg books, magazines, postcards, photos, videos, internet, exhibitions, museums

2 Be able to develop ideas in response to built environment briefs

Design process: apply analysis, apply research; generate ideas; test ideas; refine ideas

Ideas generation: eg brainstorming, mood boards, rough sketches, collages, maquettes, samples, test pieces, free association, lateral thinking

Design development: manipulating space eg space planning, access routes, circulation, use of structural elements (pillars, posts, beams, stairs, vertical layering, horizontal layering); light (natural, artificial); colour; ergonomics, scale; 2D visuals eg preliminary studies, sketches, drawings (freehand, measured), colour work, collage, mood boards, sample boards; 3D visuals eg perspective drawing (one point, two point), orthographic projections (isometric, axonometric), CAD drawings; 3D constructions eg exploratory sketch models, maquettes, prototypes; alternative options

Design considerations: fitness for purpose eg materials (properties, characteristics, effects, uses, limitations, creative potential), techniques, processes, value for money, durability; ergonomics eg human scale, size, effect on user, structural elements; aesthetics eg visual qualities, appearance (materials, surface finishes, colour, texture, light)

Final design outcomes: communicating proposals eg presentation model, mood board, drawings (sketches, measured, CAD), materials (colour rendering, sample board), annotations

3 Be able to experiment with materials, techniques and processes in response to built environment briefs

Material applications for the built environment: flooring eg wood, natural stone (slate, marble, limestone, granite), composites, concrete, brick, cork, rubber, glass, resin, metal, plastics, textiles, leather; walls and ceilings eg concrete block, brick, plaster, render, wood, glass (sheet, bricks), textiles, leather, paints, papers; other considerations eg properties (resistant, non-resistant, strength, durability, moisture resistance, texture, flexibility, colour), technical factors (cost, production methods, sustainability, environmental credentials), functional considerations (size, ease of use, durability, structural elements, ergonomics); creative potential; fitness for purpose; limitations; recording explorations eg worksheets, sample boards, drawings, colour rendering, CAD

Model making processes: materials eg card (foam board, mount board, corrugated, recycled), wood (balsa, veneers, sheet), plastics (rigid, flexible), metal (sheet, mesh, tube, wire, foil), papers, plaster, resin, glues, paints; construction techniques eg measuring, cutting, carving, forming, moulding, surface finishing, joining (tying, gluing, pinning, slotting, stacking), assembling; recording results eg notes, photos, drawings

Health and safety: elimination of risk to self and others; safe studio practice; COSHH guidance on materials

4 Be able to present own built environment work with evaluation

Presentation: eg to client, audience of users, peer group; development work (2D, 3D); final outcomes (2D, 3D)

Presentation format: visual eg 2D (case studies, sketchbooks, collage, montage, mood boards, measured drawings, CAD, video, colour work, photographs), 3D (sketch models, maquettes, sample boards, presentation models), written/verbal (use of appropriate design language, use of correct terminology)

Commenting on work: initial ideas eg context, source material, influences; working methods eg design development, materials, techniques, processes, testing ideas; final outcomes eg outcomes against intentions, strengths, weaknesses, success, failure, appropriateness (materials, techniques, processes), opportunities for refinement, fitness for purpose, response to brief, aesthetics, quality of work

Review methods: eg describe, discuss, select, review, reject, refine, re-present

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 the learning outcomes for the unit. The assessment criteria for a pass grade describes 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:
<p>P1 describe the requirements of a built environment brief</p> <p>P2 use the design process to develop straightforward ideas in response to a built environment brief</p> <p>P3 experiment safely with selected materials, techniques and processes in response to a built environment brief</p> <p>P4 present own built environment work with an evaluation of its strengths and weaknesses.</p>	<p>M1 describe with some detail the requirements of a built environment brief</p> <p>M2 use the design process to develop a range of competent ideas in response to a built environment brief</p> <p>M3 experiment purposefully with selected materials, techniques and processes in response to a built environment brief</p> <p>M4 present own built environment work competently with some detail in the evaluation of its strengths and weaknesses.</p>	<p>D1 describe with substantial detail the requirements of a built environment brief</p> <p>D2 use the design process to develop a wide range of creative ideas in response to a built environment brief</p> <p>D3 experiment creatively with selected materials, techniques and processes in response to a built environment brief</p> <p>D4 present own built environment work confidently with substantial detail in the evaluation of its strengths and weaknesses.</p>

Essential guidance

Delivery

Learners will need to be taught how to analyse a brief and respond to the specific needs of a client or client group to arrive at viable practical solutions. They will need to be introduced to the design process ie research, analysis (client, site), development and testing of ideas. Learners will need to consider spatial potential, materials, construction techniques and processes, scale, colour, light, budget, sustainability – particularly in the use of materials – and environmental, social and ecological issues. They should be introduced to site surveys in order to observe, measure and record existing conditions and model making (sketch and presentation) as an important tool for developing and presenting ideas. Learners need to research materials and construction processes for their design proposals and need to be able to review, discuss and comment on the strengths and weaknesses of design development and final outcomes. Work should be presented in appropriate formats eg drawings (freehand, measured), models, mood and sample boards. Learners will need to adhere to all aspects of current legislation associated with health and safety practices in the studio, in particular cutting and joining techniques for model making, and should follow the appropriate COSHH guidance.

Assessment

The assessment of this unit should be through observation, ongoing critique and presentation of work undertaken in response to project briefs. A portfolio of evidence should document the complete design process from initial research and analysis through development and exploration to the final outcome. It may be in the form of annotated sketchbook work, case studies, worksheets, questionnaires, drawings (technical, conceptual), mood boards, sample boards, photographs, computer imagery, sketch and presentation models, evaluations (verbal, written) and final outcomes. Work should be appropriately presented and displayed according to the media and techniques employed in the production of the work. Learners will need to learn the appropriate design language and terminology in order to review the success and/or failure of their working methods, use of materials and techniques and the quality and aesthetics of the work. Evidence for assessment should aim to link practical visual work with written and verbal materials.

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 studios and workshops will be required, equipped with resources and materials for drawing and model making including drawing tables with parallel motions and set squares. Access to computers with vector graphics, illustration, and 3D and modelling software to industry standard would be useful. Access to library resources, including specialist texts, CD ROMs and journals on the built environment should be available to all learners taking this unit. Learners should also have access to relevant museums and galleries to study appropriate work first hand. Audio-visual and computer-aided equipment and software should be used where appropriate to support teaching and learning, for example CD ROM, DVD and the internet.

Indicative resources

Textbooks

Ching F — *Architecture: Form, Space & Order* (John Wiley & Sons Limited, 1987)
ISBN 978-0442215354

Ching F — *Architectural Graphics* (John Wiley & Sons Limited, 2009)
ISBN 978-0470399118

Ching F — *Interior Design Illustrated* (John Wiley & Sons Limited, 1987)
ISBN 978-0471288683

Fiell C and P — *1000 Chairs* (Taschen, 2000) ISBN 978-3822857601

Fiell C and P — *Designing the 21st Century* (Taschen, 2001) ISBN 978-3822858838

Martin C — *The Surface Texture Book* (Thames & Hudson, 2005)
ISBN 978-0500511619

Massey A — *Interior Design of the 20th Century* (Thames & Hudson, 1990)
ISBN 978-0500202470

Pile J F — *History of Interior Design* (Laurence King Publishing Limited, 2000)
ISBN 978-185669200

Powers A — *Nature in Design* (Conran Octopus, 2002) ISBN 978-1840912579

Terraroli V — *Skira Dictionary of Modern Decorative Arts* (Skira Editore, 2001)
ISBN 978-8884910257

Wilhide E — *Materials* (Quadrille Publishing Ltd, 2001) ISBN 978-1903845110

Journals

Architectural Review

Blueprint

Creative Design

Design Magazine

Design Week

Websites

www.architecture.com	Royal Institute of British Architects – exhibitions etc
www.architecturefoundation.org.uk	education projects focusing on young people considering further built environment study, exhibitions, events, exhibitions
www.buildingcentre.co.uk	material, product and technical information and guidance
www.design-council.org.uk	the national strategic body for design

Unit 9: Vocational Contexts in Art and Design

Unit code: D/602/0737

QCF Level: 2

Credit value: 10

Guided learning hours: 60

Unit aim

In this unit learners will research and explore historical and cultural contexts relating to their art and design pathway. Learners should present their findings and their personal response.

Unit introduction

Designers need to keep up to date with creative and cultural events as well as being informed about what has happened in the past. This involves studying historical and contemporary art, craft and design as well as exploring the context surrounding when works were completed. This unit is about the development of the skills needed to seek out, organise, select and record relevant information and references that provide inspiration for originating ideas. Learners will develop their research and presentation skills by exploring others' work and developing their own responses.

Learning outcomes

To achieve this unit a learner must:

- 1 Know the influences of historical and contemporary design developments
- 2 Be able to explore historical and contemporary references to research and develop own response
- 3 Be able to present information about the work studied.

Unit content

1 **Know the influences of historical and contemporary design developments**

Historical and contemporary design developments: eg key movements, styles, schools, individuals, Western and non-Western cultures; influencing factors eg technology, social factors, environment, politics; trends, developments with materials

2 **Be able to explore historical and contemporary references to research and develop own response**

Explore references: sources eg museums, galleries, collections, archives, internet journals, websites, books, magazines, interviews, recorded information, literature; first-hand observation eg object handling sessions, observational drawing, visits, photographing, interviewing, sketching, annotation, note-taking

3 **Be able to present information about the work studied**

Presentation: eg case study, annotated images, notes, information sheets, technical file, PowerPoint presentation, illustrated talk, artists' book, sketchbook, presentation sheets, discussion, artefact, personal response; factual research on historical and contemporary design eg background information, biography, description, technical information, context, user, use of 2D and 3D visual language, meaning

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:
<p>P1 identify the influences of different historical and contemporary design developments</p> <p>P2 explore different historical and contemporary references to research and produce own response</p> <p>P3 present information about the work studied.</p>	<p>M1 consistently identify the influences of different historical and contemporary design developments</p> <p>M2 consistently explore a range of historical and contemporary references to research and develop own response</p> <p>M3 consistently present well-organised and effective information about the work studied.</p>	<p>D1 imaginatively and independently identify the influences of different historical and contemporary design developments</p> <p>D2 imaginatively and independently explore a wide range of historical and contemporary references to research and develop own response</p> <p>D3 imaginatively and independently present complex information about the work studied.</p>

Essential guidance

Delivery

The aim of this unit is to enable learners to explore the diversity of historical and contemporary practice in design. When learners are exploring design developments they may focus their investigation on key individuals within a chosen area of specialism or undertake a more general overview. This may involve lectures as well as visits to galleries, exhibitions, sculpture parks, craft fairs, studios or workshops, and visiting speakers.

Assessment

A number of activities may be used to generate evidence for this unit. Assignments may demand written reports or verbal presentations. Learners should keep an illustrated record of their research notes to support their assignments.

Employer engagement and vocational contexts

Centres should develop links with practising artists, designers craftworkers, programmers etc in order to develop assignments for learners or to provide work experience. A lecture or visit by an artist, designer, craftworker, programmer or other type of 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 the creative media sector, 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 digital media with associated hardware and software, studio tools and equipment and related journals and reference materials. This unit can be delivered in a classroom or drawing studio. Access to slide-shows and interactive PowerPoints can be used to show examples of artists' work but learners should be able to engage in active research and discussion around the themes covered.

Indicative resources

Textbooks

Graham-Dixon A — *Art: The Definitive Visual Guide* (Dorling Kindersley, 2008)
ISBN 978-1405322430

Phaidon Editors — *30,000 Years of Art: The Story of Human Creativity Across Time and Space* (Phaidon Ltd, 2007) ISBN 978-0714847894

Smith R— *The Artist's Handbook* (Dorling Kindersley, 2009) ISBN 978-1405348775

Journals

Artists & Illustrators

Crafts

Creative Review

Websites

www.apollo-magazine.com	A broad online version of Apollo magazine, giving an up-to-date view on contemporary arts
www.arthistory.about.com	A website offering links to useful sources of information on historical and contemporary artists
www.craftscouncil.org.uk	This website includes access to a list of current designers and makers and a searchable image bank called Photostore

Unit 10: 2D Visual Communication

Unit code: L/502/4823

QCF Level: 2

Credit value: 5

Guided learning hours: 30

Unit aim

The aim of this unit is to enable learners to gain an understanding of and develop skills in 2D visual communication techniques, such as drawing, painting, photography and print-making.

Learners will follow set assignment briefs that allow them to apply skills through research, development and final design ideas.

Unit introduction

This unit explores a wide range of 2D mark-making techniques with reference to formal elements such as line, tone, colour, shape, pattern, texture, form and proportion. Learners should be given the opportunity to experience as many 2D techniques as possible.

Learners will develop skills in this area with a view to completing research, development and final design ideas. This is an essential part of learning; skills and knowledge acquired for this unit will underpin all other units within the qualification.

Assignment briefs with a specific theme should give learners the opportunity to develop skills for this unit.

It is recommended that learners are introduced to 2D techniques offered by the centre through an induction programme followed by more specific assignments, for example a series of banners promoting galleries at the Victoria and Albert Museum. This assignment may include 2D research in the form of sketches and photographs from the museum which can be creatively developed into banners using 2D techniques such as printmaking.

Learners will be introduced to, and need to be made aware of, the health and safety issues associated with the techniques and processes for the unit.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to use 2D mark-making techniques
- 2 Be able to communicate design ideas using 2D visual communication techniques
- 3 Be able to use formal elements in 2D visual communication.

Unit content

1 Be able to use 2D mark-making techniques

2D mark-making: disciplines eg drawing, painting, photography, printmaking, digital (drawing, painting, manipulating)

Techniques: general eg touch, control, style, method, procedure, facility; specific eg drawing (stipple, smudge, sgraffito), painting (blend, wash, scumble), digital (clone, transform), printmaking (etch, silkscreen), photography (dodge, focus)

Recording: from primary sources, natural environment eg plants, humans, animals, insects, shells, landscapes; made environment eg architecture, artefacts, street furniture, galleries, exhibitions, museums; secondary sources eg magazines, journals, video, film, internet, printed material, CD ROM

Health and safety: Health and Safety Act of 1974; elimination of risk to self and others; thinking and working safely within a studio environment; following COSHH guidance on materials and workshop practice

2 Be able to communicate design ideas using 2D visual communication techniques

Communicate: response, selected themes, assignment briefs, audience, consumer, client, end user

Design ideas: eg sketches, thumbnails, plans, patterns, series, visualisation, texts, layouts, patterns, diagrams

Final design ideas: eg finished paintings, drawings, prints, screen-based images

3 Be able to use formal elements in 2D visual communication

Formal elements: line eg contour, cross-hatch; tone eg shadow, contrast; colour eg hue, tint, value, additive, subtractive; form eg linear, shaded; shape eg regular, irregular; texture; scale; angle; proportion

Materials: eg drawing (tools, graphite, charcoal, crayon, ink, pastel, papers, surfaces), painting (gouache, inks, oil, acrylic, watercolour, brushes, pigments, medium, supports), printmaking (lino, foam, card, mesh, engraving, inks, press), digital (screens, projector, tablet, stylus, scanner, sensor, camera, touch-sensitive, printers), photography (camera, lens, printer, papers, screen, sensor, photo sensitive emulsion)

Disciplines: eg drawing, painting, printmaking, photography and digital media

2D visual communication: appearance eg shape, colour, texture, surface, composition, marks, uniformity, contrast, edges; content eg subject, focus, layout

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 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:
<p>P1 demonstrate use of 2D mark-making techniques safely when working from primary and secondary sources</p> <p>P2 communicate design ideas using 2D visual communication techniques</p> <p>P3 use formal elements in 2D visual communication.</p>	<p>M1 demonstrate consistent and effective use of 2D mark-making techniques when working from primary and secondary sources</p> <p>M2 communicate ideas effectively and consistently using 2D mark-making techniques</p> <p>M3 explain the use of formal elements in 2D visual communication.</p>	<p>D1 demonstrate imaginative and independent use of 2D mark-making techniques, when working from primary and secondary sources</p> <p>D2 communicate ideas imaginatively and independently using 2D mark-making techniques</p> <p>D3 evaluate the use of formal elements in 2D visual communication.</p>

Essential guidance

Delivery

For this unit learners should have access to appropriate 2D resources such as photography, printmaking, painting, drawing and digital.

The opportunity to collect information from primary sources through drawing, digital cameras, camera phones etc is also essential for the delivery of this unit. While work from primary sources may look rougher and more hesitant, learners should be encouraged to recognise it as highly valuable in encouraging their long-term visual skills development and more personal connection to assignments.

Through the delivery of this unit centres have the opportunity to introduce learners to a wide range of materials and techniques. Whilst most of the unit is studio based, opportunities need to be taken for visits to locations, exhibitions, galleries and museums.

Delivery should motivate and excite learners and be planned in such a way that it includes induction to materials and techniques followed by assignments that will allow for the application of skills. Integration with other units should be considered where possible.

During the induction period it is essential that:

- learners are made aware of the health and safety issues relating to media, materials, tools and equipment used. It is important that learners know how to reduce the risk to themselves and others by thinking and working safely with tools, materials and technology
- learners are introduced to materials and processes relevant to 2D processes, for example drawing, photography and printmaking.

Assignment briefs should be built around the learning outcomes to maximise the opportunities for achievement.

Learning outcomes 1, 2 and 3 are closely linked. For all three outcomes, the techniques and processes selected will depend on the equipment and materials available in each centre, but it is expected that learners will familiarise themselves with as broad a range as possible. Each medium and material has its own set of rules and methods for use. Learners will need to employ the correct techniques for using the media and materials they work with and understand the potential of media and process. Artists and designers often experiment and try to find new ways of working. They sometimes break the rules in order to get unusual results and finishes.

Learning outcome 1 will be delivered primarily through studio work. Learners should be given the opportunity to experience as many 2D techniques as possible. It is important that assignments stimulate learners and give them the opportunity to extend the skills they acquire and to recognise links between the various materials, techniques and disciplines.

It is important that primary and secondary sources are carefully considered and various methods for recording from primary and secondary sources are explored. This is an opportunity for learners to develop their understanding of historical and contemporary art, craft and design practices.

Learning outcome 2 will be delivered in studios. Learners will need to understand how to generate ideas using techniques developed for learning outcome 1 and communicate them using appropriate methods. Contextual information will be vital in building learners' understanding of methods employed by artists, craftspeople and designers. Ideas will need to be developed through sketching and experimentation with 2D techniques. Learners could revisit and rework earlier studies produced in the studio or on location. It may be found at this stage that further visits or focused observation studies or photographs will help to refine learners' 2D communication techniques.

Learning outcome 3 provides the opportunity for learners to demonstrate their understanding of the formal elements through practical outcomes. They will need to be encouraged to articulate the different ways in which line, for example, can be created through, on the one hand, charcoal and on the other, watery paint and long-haired brushes. Through activities such as this, learners can then go on to further distinguish and control the use of tone, paint density, mixtures of colour and different surfaces (smooth, textured, light, dark, coloured, dry, damp, wet) to further modify the quality of line. Learners could extend their study, exploring the use of line in photography, printmaking or digital media.

Learners should be encouraged to document, discuss and present their opinions on the use of formal elements by artists, designers and craftspeople in their work, as well as the use of such in their own development of 2D ideas.

When describing their work and the work of others, it is necessary that the correct technical terms are used.

Learners' design work and final design ideas need to be documented in detail in terms of formal elements, design ideas, final ideas and evaluation.

For this unit to be delivered successfully it is recommended that visits to galleries, museums and exhibitions are embedded in the assignment brief.

Inviting design practitioners in specialist fields to discuss their working methods with learners will put this unit into a vocational context.

Assessment

Evidence should include a range of studies and samples that have been chosen to show how skills have developed, together with an awareness of safe working practices. Learners will need evidence of working from both primary and secondary sources and should use both in the development of their work. Work from primary sources may be more limited in that conditions on location or from short poses give limited time for learners to create considered work but it is often more immediate and exciting than that produced from secondary sources. Learners are expected to show some skill in the use of various techniques, with some grasp of the distinctive visual vocabulary relevant to specific disciplines.

The correct terms for techniques and reference to formal elements should be evidenced in learners' work; this can be presented in a variety of ways, for example presentation to the group, annotations inside a sketchbook or evaluation report.

The assessor should be aware of using the correct method of assessment, for example portfolios, sketchbooks, samples and digital records of presentations given to the group.

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

Learners will need access to a range of media, materials, relevant tools and equipment. This includes materials such as a range of pencils of varying hardness, soft graphite sticks, erasers, putty rubbers, crayon, pastel, watercolours, acrylics, oils, papers, fabrics, printmaking equipment for relief printing, stencil printing, digital cameras and computers. Access to a collection of materials and artefacts for primary observation and suitable locations is also necessary.

A studio space for 2D experimentation and development of ideas is essential, with specialist facilities for workshops and materials.

A learning resource centre (for example a library) providing research materials such as books, publications and the internet should be available.

Indicative resources

Textbooks

Barber B — *The Complete Book of Drawing: Essential Skills For Every Artist* (Arcturus Foolsham, 2004) ISBN 978-0572030445

De Sausmarez M — *Basic Design: The Dynamics of Visual Form* (Herbert Press Ltd, 2007) ISBN 978-0713683660

Edwards B — *The New Drawing on the Right Side of the Brain* (HarperCollins, 2001) ISBN 978-0007116454

Merrifield M P — *Light And Shade: A Classic Approach To Three Dimensional Drawing* (Dover, 2005) ISBN 978-0486441436

Perrella L — *Artists' Journal and Sketchbooks: Exploring and Creating Personal Pages* (Rockport, 2007) ISBN 978-1592530199

Simpson I — *Drawing Seeing and Observation* (A&C Black, 2003) ISBN 978-0713668780

Wilcox M — *Blue & Yellow Don't Make Green* (School of Color, 2002) ISBN 978-0967962870

Resource packs

Adams E and Weiner J — *Drawing Attractions: Drawing Attractions, Drawing Insights, Drawing On-Sites, Drawing Inspiration, Drawing in Action, Drawing Practicalities* (NSEAD, 2006)

Websites

schools-wikipedia.org/wp/d/Drawing.htm	Online encyclopedia definition of drawing
www.adobe.com	Art and design software
www.campaignfordrawing.org/home/index.aspx	The Campaign for Drawing website
www.drawingroom.org.uk/intro.htm	The website of a gallery dedicated to contemporary drawing

Unit 11: 3D Visual Communication

Unit code: R/502/4824

QCF Level: 2

Credit value: 5

Guided learning hours: 30

Unit aim

The aim of this unit is to enable learners to learn about three dimensional (3D) visual communication techniques, through processes such as construction, modelling, carving and casting.

Unit introduction

Skills in 3D visual communication are necessary for artists, designers and craftspeople because they allow them to communicate the development of ideas in 3D with reference to the use of materials, techniques and formal elements; and to produce final pieces, for example products, furniture and sculpture.

It is recommended that learners are introduced to 3D materials, for example wood, metal, ceramics, plaster, glass, plastics and card, and techniques and processes through an individual workshop induction. The induction could be followed by assignments that allow the application of skills to design, construct and produce 3D pieces. These could include automata, mobiles, packaging, flexigons, paper manipulation, wire or card constructions, installations made from cardboard that use tessellation, and pop-up books.

Learners will need to be made aware of the health and safety issues associated with the techniques and processes in this unit, for example safe workshop practices. The appropriate Control of Substances Hazardous to Health (COSHH) guidance should be followed at all times.

Learning outcomes

To achieve this unit a learner must:

- 1 Be able to use 3D making techniques
- 2 Be able to communicate design ideas using 3D visual communication techniques
- 3 Be able to use formal elements in 3D visual communication.

Unit content

1 Be able to use 3D making techniques

3D making techniques: eg cutting, joining, shaping, forming, carving, weaving, 3D digital techniques, model-making, experiments, finished pieces, laminating, fusing, casting, slotting, piercing, sanding, polishing, finishing

Recording: from primary sources; natural environment eg plants, humans, animals, insects, shells, landscapes; made environment eg architecture, artefacts, street furniture, galleries, exhibitions, museums; secondary sources eg magazines, journals, video, film, internet, printed material, CD ROM

Health and safety: Health and Safety Act 1974; elimination of risk to self and others; thinking and working safely within a workshop environment; following COSHH guidance on material and workshop practice

2 Be able to communicate design ideas using 3D visual communication techniques

Communicate ideas: response to themes, assignment briefs; materials sampling eg model-making, maquettes, handling artefacts; investigating eg making processes, material properties, test runs; presentation eg working drawings, design sheets, onscreen, scale models, sketchbooks, feedback

Development: forms eg cylinder, cube, rhombus

Design ideas: eg card models, maquettes, test pieces, experiments, materials

Final design ideas: eg finished sculptures, models, artefacts, digital files

3 Be able to use formal elements in 3D visual communication

Formal elements: line; tone; colour; form; shape; texture; proportion; volume

Use formal elements: eg line (wire sculpture), tone (dyed fabrics, ceramic firing), colour (glazes, stained glass), form (pinch pots), shape (card sculptures, plastics); texture (stone carving), proportion (scale models, human figure), volume (inflatables, containers)

Materials: 3D non-resistant materials eg wet plaster, card, paper, string, wire, fibres, string, modroc, papier mache, clay, foam, textiles; 3D resistant materials eg hard woods, soft woods, plywood, MDF, metals, plastic, glass, dry plaster, composites, sheet materials

Techniques: eg construction processes, cutting, carving, forming, moulding, weaving, joining, assembly, CAD/CAM, finishing processes

3D visual communication: presence eg volume, spatial, sound absorption, tactile quality, weight, ergonomics, softness, structure, scale, presentation; content eg subject, parts

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 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:
<p>P1 demonstrate use of 3D making techniques safely when working from primary and secondary sources</p> <p>P2 communicate design ideas using 3D visual communication techniques</p> <p>P3 use formal elements in 3D visual communication.</p>	<p>M1 demonstrate consistent and effective use of 3D making techniques when working from primary and secondary sources</p> <p>M2 communicate ideas effectively and consistently, using 3D making skills</p> <p>M3 explain the use of formal elements in 3D visual communication.</p>	<p>D1 demonstrate imaginative and independent use of 3D making techniques, when working from primary and secondary sources</p> <p>D2 communicate ideas imaginatively and independently using 3D making techniques</p> <p>D3 evaluate the use of formal elements in 3D visual communication.</p>

Essential guidance for tutors

Delivery

This unit gives learners the opportunity to work with a wide range of 3D materials for the purpose of experimenting with, developing and producing 3D pieces.

This unit should be delivered in the most appropriate workshops: for example, wood, metal and ceramics, with an induction schedule that covers the use of equipment with reference to materials, techniques and health and safety.

This unit should be linked with the others in the qualification to provide underpinning problem-solving and construction skills that can be extended in a broad range of disciplines; whether delivery is on its own or combined, it is important that attention is given to the content of the learning outcomes.

Learning outcome 1 will be delivered through specialist workshops (wood, metal, and ceramics); learners should be given the opportunity to experience a broad selection of appropriate and accessible techniques through which they can develop transferable skills. Learners should be taught to take into account health and safety procedures with reference to 3D processes specific to relevant workshops, for example, wood, metal and ceramics.

Assignments should stimulate and interest learners, as well as giving them the opportunity to develop 3D skills with reference to materials and techniques.

Learning outcome 2 will be delivered in workshops, using the appropriate machinery, tools, techniques and processes with reference to materials, for example wood. Learners will need to understand how to generate and develop ideas using 3D processes acquired for learning outcome 1, and communicate them appropriately, for example maquettes, sketch models, scale models and final pieces.

Learners are encouraged to explore and experiment with the potential of 3D materials and to consider their source or manufacture, appropriate to the tasks set for induction and assignment briefs.

Learning outcome 3 will be delivered by applying 3D skills to design ideas and finished pieces. During this process it is essential that learners demonstrate an understanding of formal elements with reference to work produced, for example size, shape, form, function, pattern, including drawing for design, mood boards, working drawings, measuring and the technical language appropriate to the processes and techniques.

Learners should be encouraged to document, discuss and present their opinions on the use of formal elements, materials, techniques and processes with reference to their own work (development and final pieces).

Reference to the following will need to be made:

- formal elements
- design ideas
- materials
- techniques
- final pieces
- evaluation.

For the successful delivery of this unit it is recommended that the integration of 2D drawing skills are included.

Inviting design practitioners in specialist fields to discuss their working methods with learners will put this unit into a vocational context.

Assessment

Evidence should include a range of studies and samples that have been chosen to show how skills have developed, together with an awareness of safe working practices. Learners will need evidence of working from both primary and secondary sources and should use both in the development of their work. Work from primary sources may be more limited in that conditions on location or from short poses give limited time for learners to create considered work but it is often more immediate and exciting than that produced from secondary sources. Learners are expected to show some skill in the use of various techniques, with some grasp of the distinctive visual vocabulary relevant to specific disciplines.

The correct terms for techniques and reference to formal elements should be evidenced in learners' work; this can be presented in a variety of ways, for example presentation to the group, annotations inside a sketchbook or evaluation report.

The assessor should be aware of using the correct method of assessment, for example portfolios, sketchbooks, samples and digital records of presentations given to the group.

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

Learners will need to have access to a range of materials, techniques and processes relevant to 3D.

Workshops might include facilities for working with wood, ceramics and metal, depending on the specialist areas available.

A studio space for experimentation and development of ideas is essential. Adequate space for the storage of work in progress and completed pieces should be made available.

Learners should have access to a learning resource centre (for example a library), providing research materials such as books, publications and the internet.

Indicative resources

Textbooks

- Byars M — *New Chairs – Innovations in Design, Technology and Materials* (Chronicle Books, 2006) ISBN 978-0811853644
- Eldershaw J — *Junk Jewelry: 25 Extraordinary Designs to Create from Ordinary Objects* (Crown, 2008) ISBN 978-0307405173
- Fiell C — *Design for the 21st Century* (Taschen, 2003) ISBN 978-3822827796
- Hosaluk M — *Scratching the Surface: Art and Content in Contemporary Wood* (North Light Books, 2002) ISBN 978-1893164154
- Hudson J — *1000 New Designs and Where to Find Them: A 21st Century Source Book* (Laurence King Publishing, 2006) ISBN 978-1856694667
- Lefteri C — *Materials for Inspirational Design* (RotoVision, 2006) ISBN 978-2940361502
- McCreight T — *The Complete Metalsmith: Illustrated Handbook* (Davis Publications, 1991) ISBN 978-0871922403
- Merrifield M P — *Light and Shade: A Classic Approach to Three Dimensional Drawing* (Dover, 2005) ISBN 978-0486441436
- Triplett K — *Handbuilt Ceramics* (Lark Books, 2008) ISBN 978-1579901844

Resource packs

- Adams E — *Space and Place* (NSEAD, 2004)

Websites

- | | |
|--|--|
| www.designfactory.org.uk | A crafts and design development agency based in the East Midlands |
| www.designnation.co.uk | The website of the Design Trust |
| www.ecodesign.co.uk | architecture practice specialising in low energy design |
| www.henry-moore-fdn.co.uk | The Henry Moore Foundation |
| www.huddersfield3d.co.uk | A design exhibition centre for product and transport design students |

Further information

For further information please call Customer Services on 0844 576 0026 (calls may be recorded for training purposes) or visit our website (www.edexcel.com).

Useful publications

Related information and publications include:

- *Guidance for Centres Offering Edexcel/BTEC QCF Accredited Programmes* (Edexcel, distributed to centres annually)
- Functional skills publications – specifications, tutor support materials and question papers
- *Regulatory arrangements for the Qualification and Credit Framework* (published by Ofqual) August 2008
- the current Edexcel publications catalogue and update catalogue.

Edexcel publications concerning the Quality Assurance System and the internal and external verification of vocationally related programmes can be found on the Edexcel website and in the Edexcel publications catalogue.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

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

Professional development and training

Edexcel supports UK and international customers with training related to BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

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

The national programme of training we offer can be viewed on our website (www.edexcel.com/training). You can request customised training through the website or by contacting one of our advisers in the Training from Edexcel team via Customer Services to discuss your training needs.

Our customer service numbers are:

BTEC and NVQ	0844 576 0026
GCSE	0844 576 0027
GCE	0844 576 0025
The Diploma	0844 576 0028
DiDA and other qualifications	0844 576 0031

Calls may be recorded for training purposes.

The training we provide:

- is active – ideas are developed and applied
- is designed to be supportive and thought provoking
- builds on best practice.

Our training is underpinned by the LLUK standards for those preparing to teach and for those seeking evidence for their continuing professional development.

Annexe A

The Edexcel/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 (QCF)		
4		BTEC Level 4 Foundation Diploma in Art and Design (QCF) BTEC Level 4 HNC Diploma in Art and Design/ Fashion and Textiles/ Fine Art/ Graphic Design/ Interactive Media/ 3D Design/ 3D Design (QCF)		Level 4 NVQ Design Management (QCF)

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

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 (QCF)	BTEC Level 1 Award, Certificate and Diploma in Interactive Media/ 3D Design/ Textiles/ Graphic Design/ 3D Design / Fashion and Clothing/ Fine Art (QCF)	
Entry		BTEC Entry Level Award in Art and Design (Entry 3) (QCF)		

Annexe B

Wider curriculum mapping

Study of the Edexcel BTEC Levels 1 and 2 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 of 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 Edexcel BTEC Levels 1 and 2 Specialist qualifications 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	Units								
	1	2	3	4	5	6	7	8	9
Photo Imaging								#	
Ccskills									
Crafts	#	#	#	#	#	#	#	#	#
Design	#	#	#	#	#	#	#	#	#
Jewellery	#	#	#		#	#	#	#	#

Level 2

National Occupational Standards	Units										
	1	2	3	4	5	6	7	8	9	10	11
Photo Imaging				#							
Ccskills											
Crafts				#	#		#		#		
Design	#	#	#	#	#	#	#	#	#	#	#
Jewellery				#	#		#		#		

Annexe D

Glossary of accreditation terminology

The following information about these qualifications can also be found on the Edexcel website.

Accreditation start/end date	The first/last dates that Edexcel can register learners for a qualification.
Certification end date	The last date on which a certificate may be issued by Edexcel.
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 (GLH)	Guided learning hours are defined as all the times when a tutor, trainer or facilitator is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. It also includes time spent by staff assessing learners' achievements. It does not include time spent by staff in day-to-day marking of assignments or homework where the learner is not present.
Learning Aims Database	Link to the Learning Aims Database, which features detailed funding information by specific learning aim reference.
Learning Aim Reference	Unique reference number given to the qualification by the funding authorities on accreditation.
Level	The level at which the qualification is positioned in the Qualifications and Credit Framework (QCF).
Performance tables	These qualifications are listed on the Department for Education (DfE) website School and College Achievement and Attainment Tables (SCAAT) as performance indicators for schools and colleges.
Qualifications Accreditation Number (QAN)	Unique reference number given to the qualification by the regulatory authorities on accreditation.
Register of Regulated Qualifications	Link to the entry on the Register of Regulated Qualifications for a particular qualification. This database features detailed accreditation information for the particular qualification.

Section 96	Section 96 is a section of the Learning and Skills Act 2000. This shows for which age ranges the qualification is publicly funded for under-19 learners.
Section 97	Section 97 is a section of the Learning and Skills Act 2000. This shows whether the qualification is publicly funded for learners aged 19 and over.
Title	The accredited title of the qualification.

Annexe E

BTEC Specialist and Professional qualifications

BTEC qualifications on the NQF	Level	BTEC Specialist and Professional Qualifications on the QCF	BTEC qualification suites on the QCF
BTEC Level 7 Advanced Professional Qualifications BTEC Advanced Professional Award, Certificate and Diploma	7	BTEC Level 7 Professional Qualifications BTEC Level 7 Award, Certificate, Extended Certificate and Diploma	
BTEC Level 6 Professional Qualifications BTEC Professional Award, Certificate and Diploma	6	BTEC Level 6 Professional Qualifications BTEC Level 6 Award, Certificate, Extended Certificate and Diploma	
BTEC Level 5 Professional Qualifications BTEC Professional Award, Certificate and Diploma	5	BTEC Level 5 Professional Qualifications BTEC Level 5 Award, Certificate, Extended Certificate and Diploma	BTEC Level 5 Higher Nationals BTEC Level 5 HND Diploma
BTEC Level 4 Professional Qualifications BTEC Professional Award, Certificate and Diploma	4	BTEC Level 4 Professional Qualifications BTEC Level 4 Award, Certificate, Extended Certificate and Diploma	BTEC Level 4 Higher Nationals BTEC Level 4 HNC Diploma
BTEC Level 3 Qualifications BTEC Award, Certificate, Extended Certificate and Diploma	3	BTEC Level 3 Specialist Qualifications BTEC Level 3 Award, Certificate, Extended Certificate and Diploma	BTEC Level 3 Nationals BTEC Level 3 Certificate, Subsidiary Diploma, Diploma and Extended Diploma

BTEC qualifications on the NQF	Level	BTEC Professional and Specialist Qualifications on the QCF	BTEC qualification suites on the QCF
BTEC Level 2 Qualifications BTEC Award, Certificate, Extended Certificate and Diploma	2	BTEC Level 2 Specialist Qualifications BTEC Level 2 Award, Certificate, Extended Certificate and Diploma	BTEC Level 2 Firsts BTEC Level 2 Certificate, Extended Certificate and Diploma
BTEC Level 1 Qualifications BTEC Award, Certificate, Extended Certificate and Diploma	1	BTEC Level 1 Specialist Qualifications BTEC Level 1 Award, Certificate, Extended Certificate and Diploma	BTEC Level 1 Qualifications BTEC Level 1 Award, Certificate and Diploma (vocational component of Foundation Learning)
	E	BTEC Entry Level Specialist Qualifications BTEC Entry Level Award, Certificate, Extended Certificate and Diploma	BTEC Entry Level Qualifications (E3) BTEC Entry Level 3 Award, Certificate and Diploma (vocational component of Foundation Learning)

NQF = National Qualifications Framework

QCF = Qualifications and Credit Framework

For most qualifications on the **NQF**, the accreditation end date is normally 31 August 2010 or 31 December 2010.

For qualifications on the **QCF**, the accreditation start date is usually 1 September 2010 or 1 January 2011.

QCF qualification sizes	
Award	1-12 credits
Certificate	13-36 credits
Diploma	37+ credits

Publications Code BA025333 November 2010

For more information on Edexcel and BTEC qualifications please
visit our website: www.edexcel.com

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