

Unit 88: Extending Specialist Ceramic Techniques

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| Unit code: | D/502/5443 |
| QCF Level 3: | BTEC National |
| Credit value: | 10 |
| Guided learning hours: | 60 |

● Aim and purpose

The purpose of this unit is to give learners the opportunity to extend skills, experiences, working methods and approaches to ceramic materials, techniques and processes and apply these to the planning, production and completion of a series of related artefact(s).

● Unit introduction

Ceramic practitioners evolve personal directions through researching and recording, investigations of ideas and designs, and experimenting with materials, technologies and making processes. Although they produce one-off artefacts or small-batch productions, mostly ceramicists develop and refine objects through subtle nuances of forms and surfaces in a series of related works. Further ideas, in turn, may occur through regular and ongoing practice, establishing an interrelatedness of all components of the design and making process.

In this unit learners will practise and develop skills across all activities of designing and making in ceramics. Learners will have opportunities to evolve well-considered designs through recording sources inspiration, developing a range of design ideas and selecting a direction to pursue through a series or group of works. They should broaden their knowledge of ceramics by researching historical and contemporary examples and consider visual elements important to ceramic practice, for example form, volume, balance, weight, negative space, planes, surface textures, line, colour and the relationships between them, to inform design decisions.

Learners will extend making and finishing skills by pursuing new ideas and discoveries through changes, adjustments or modifications of proportion, scale, materials and surface treatments on further works as a variation of a theme.

Through articulating the 'journey' of the project to the group, learners will have the opportunity to recognise the validity of their own and others' individual solutions.

● Learning outcomes

On completion of this unit a learner should:

- 1 Be able to create designs for ceramic artefacts in response to a brief
- 2 Be able to use ceramic materials to meet design requirements
- 3 Be able to produce finished ceramic works that meet design briefs
- 4 Understand the process and finished products.

Unit content

1 Be able to create designs for ceramic artefacts in response to a brief

Clarifying brief: eg reading, listening, discussion, questioning, constraints

Research: recording information, eg primary, secondary, contextual sources, through reading, collections, visits, books, journals, internet

Developing initial ideas: extracting elements from research, eg by speculative drawings, models, maquettes, CAD; pursuing alternatives, eg combining elements, investigating variations, studying professionals' developmental works and methods; considering function, context

Reviewing and selecting: modifying and adjusting as necessary to consolidate and refine designs, considering form, volume, balance, weight, negative space, planes, surface textures, line, colour and the relationships between them; considering aesthetic and physical properties and characteristics of ceramic materials, eg tactile, smooth, textured, patterned, coloured, matt, glossy

Planning of selected design: eg by considering scale and finishes, life-size working drawings, pattern-making, scale models, prototypes, trials and tests, CAD

2 Be able to use ceramic materials to meet design requirements

Selecting: clay, eg earthenware, stoneware, porcelain, Raku, paper clay, casting slips; construction techniques; decoration and finishing materials and processes, eg referencing tests, trials, samples and recordings of explorations; firing temperatures; hand and machine tools; aesthetic qualities such as plasticity, malleability, strength, texture; possibilities and limitations

Preparing: clay, eg hardening, softening, wedging, pugging; slip, glazes; mouldmaking, with compliance to health and safety regulations

Planning: eg schedule of work to take into account changing states of materials at different stages, sequencing tasks, testing, time management to meet deadlines, drying and firing

3 Be able to produce finished ceramic works that meet design briefs

Planning: systematic and sequential methods of working safe and appropriate use of hand and machine tools

Forming: eg modelling, pinching, coiling, throwing, carving, casting; sequence, planning

Constructing: eg assembling, slabbing, cutting, joining, gluing, balancing, assembling before and after firing, combining with other materials; health and safety; hand tools, machine tools

Finishing: surface treatments to enhance and preserve finished work, eg carving, burnishing, painting, slip decorating, texturing, piercing, glazing

Storing, drying and firing: wrapping ongoing work, controlled drying, selecting appropriate temperatures

4 Understand the process and finished products

Reviewing research material: sufficient visual interest for developing design ideas, relevance of contextual references to extend design possibilities

Reviewing the design and making processes: considering formal elements; appropriateness of materials and processes; choice of materials, processes, techniques, finishes; consideration of limitations and possibilities including time constraints

Evaluating modifications: during developing stages, consolidation and production, recording changes and adjustments by notes or photographically

Evaluating finished artefacts: eg in terms of technical competence, attention to detail, quality of finish, aesthetically, weight, function, fitness for purpose; problems encountered and to what extent solved

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: |
| P1 create designs for ceramic artefacts in response to a brief [CT, IE] | M1 produce diverse experimental design ideas in response to a brief | D1 independently produce an innovative and sophisticated range of design ideas in response to a brief |
| P2 follow selected guidelines in preparing ceramic materials [SM] | M2 purposefully select and prepare ceramic materials | D2 use perceptive understanding to make informed judgements when selecting and preparing ceramic materials |
| P3 demonstrate the use of ceramic techniques to meet design requirements [CT] | M3 skilfully use techniques to meet specific design intentions | D3 demonstrate flair and imagination when using ceramic techniques to meet the design brief |
| P4 produce finished ceramic works that meet design briefs [RL] | M4 form and use finishing techniques skilfully to meet design intentions | D4 demonstrate dexterity and flair with forming and finishing techniques |
| P5 review how ideas, materials and techniques were used. [RL] | M5 analyse work in relation to the design brief. | D5 evaluate progress of their own work through all stages of the design brief. |

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills applicable in the pass criteria. It identifies opportunities for learners to demonstrate effective application of the referenced elements of the skills.

| | | | |
|------------|----------------------------|--------------------------|------------------------------|
| Key | IE – independent enquirers | RL – reflective learners | SM – self-managers |
| | CT – creative thinkers | TW – team workers | EP – effective participators |

Essential guidance for tutors

Delivery

This unit gives learners the opportunity to apply knowledge and understanding acquired in *Exploring Specialist Ceramic Techniques*, where the emphasis is on exploration of materials and processes and development of practical skills. The focus for projects for this unit is on designing, planning, producing and completing a series of finished works and developing evaluative skills.

Delivery techniques should include explanatory demonstrations, discussions, structured guidance, observations, regular reviews and exposure to historical and contemporary examples of ceramic artefacts. As this unit involves learners who will have investigated ceramics in *Exploring Specialist Ceramic Techniques*, the use of a set art, craft or design brief may provide a platform from which learners can build on their research and practical work. Research tasks are likely to be individually based and focused, as learners are encouraged to pursue areas of specific personal interest. Assignment 1 in the outline learning plan provides a structure for the delivery of the various stages of the unit. For individual and creative outcomes, emphasis is on the whole design process from inception to completion.

For learning outcome 1, learners need to be taught how to design artefacts using ceramic materials in response to a set (or self-identified) brief. Learners should be exposed to a range of sources for initial research and make studies of these by 2D/3D recordings, using a range of media and materials. When selecting sources, learners should be taught to discriminate for visual interest, as well as by content, and to consider their potential in terms of formal elements, particularly shapes, lines, textures and patterns. If secondary sources are used, these should be purposefully selected, adequately detailed, sized and in focus to provide useful visual information and subsequently filtered through personal recordings and interpretations, rather than used directly.

Tutors should demonstrate ways of developing initial ideas for works using ceramic techniques from their research work to explore variations of forms and finishes, supplemented by contextual examples of ceramic designs. Tutors should demonstrate a range of 2D and 3D techniques of visualising design ideas to enable learners to develop individual means of communication. Learners should evaluate and select designs by considering 3D formal elements.

For learning outcome 2, learners need to learn how to make appropriate selections of ceramic materials, techniques and processes to meet the making requirements of the design brief. Learners should refer to experimental works and recordings for *Exploring Specialist Ceramic Techniques* to inform their selection and preparation of materials, techniques and processes prior to making outcomes. Further testing specific to individual design intentions might be required.

Learning outcome 3 focuses on the making processes. Learners should be taught how to identify and use appropriate forming and construction techniques and processes, including finishing processes, to meet their design intentions and achieve their desired outcomes.

Learners need to be shown how to adapt core processes to individual designs, correct mistakes and control manipulation of ceramic techniques. The first selected design should be planned carefully, for example by life-size working drawings, scale models, patterns or CAD as appropriate, prior to construction. Further works may develop from and extend this initial design by form, scale and surface modifications. Learners should work under supervision and observation to ensure regulations and procedures are followed correctly, with regular discussions about practical, functional or aesthetic considerations. Because of the nature of the work and processes involved, it is essential that health and safety requirements are observed.

For learning outcome 4, learners need to be taught how to review the processes and the finished product in relation to the design brief. This can be done through written and oral annotation of the whole project, with reference to the design brief. Learners should be shown how to record decisions, changes, adjustments and modifications, for example through annotations, drawings, photographs, and how to prepare a short presentation to articulate the 'journey' of their work.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

| Topic and suggested assignments/activities and/assessment |
|---|
| Group introduction to unit and structure of the programme. |
| Assignment 1: The Design Brief |
| Group based read through of assignment and description of design constraints. |
| Learners: <ul style="list-style-type: none">• establish their initial ideas and parameters for their assignment• make notes and independently collect reference and source materials• develop project proposal that identifies materials, processes and techniques to be used• work in design development, tests and maquettes• prepare ceramic materials• produce finished ceramic work• record all relevant information in work journals• evaluate their outcomes and processes used against design brief. |
| Review of unit and assessment. |

Assessment

Because the emphasis in this unit is on designing and making a series of finished products, it is essential that learners generate evidence of the whole process from inception to realisation. This can be in the form of drawings, models, maquettes, written notes, photographs, photocopies, computer prints, samples, tests and trials, records of contextual examples and finished works. A group critique (when learners have the opportunity to present and articulate the whole 'journey' of the project) is particularly relevant to this unit.

For P1, learners must show the ability to observe and record from sources, with evidence of at least two initial ideas through developmental drawings or maquettes and at least one related contextual example and working plan for the selected design.

For P2, learners need to select ceramic materials, techniques and processes under tutor supervision and explain how they prepared these prior to making. This may take the form of reflective annotations on worksheets or sketchbooks, formal written evaluative statements or records of discussions, presentations or critiques.

For P3 (which is inherently linked to P4), learners need to use ceramic techniques that are appropriate to their design intentions. They should record relevant health and safety and COSHH data in their work journal/technical log.

For P4, learners must produce an appropriately made and completed series of artefacts using ceramic techniques, showing understanding at all stages, to meet design briefs successfully.

For P5, learners need to produce a review of the processes and finished products in relation to the design brief. This may be in the form of a reflective written statement or records of verbal presentations, discussions or critiques.

For M1, learners need to evidence the ability to plan, record and extract visual information with understanding, pursue several directions for initial design ideas, use relevant contextual examples as an aid to extending possibilities, and develop experimental designs.

For M2, learners must show purposeful selection and skilful use of ceramic techniques and preparation of materials with regard for their possibilities and limitations and for individual design intentions.

For M3, learners must need to use skill and understanding when applying specific techniques in their making processes. These should be consistently in line with their design intentions, and influenced by the learner's review.

For M4, learners must produce effective and experimental artefacts demonstrating skill, empathy and attention to detail and finish when using ceramic materials, techniques and processes.

For M5, learners need to demonstrate independently made visual decisions, analysing successes and failures in relation to the design brief using appropriate vocabulary.

For D1, learners need to demonstrate a high level of visual enquiry, extract selected visual elements and independently and innovatively investigate variations of design ideas. They should use contextual examples as inspiration to pursue alternative solutions. Designs must be sophisticated, but taking constraints into account.

For D2, learners need to make informed judgements when they compare, discard and select relevant ceramic techniques and materials, make informed judgements about risks, and anticipate problems and solutions.

For D3, learners must need to use flair and imaginative approaches to making their ceramic work. This will translate to specific techniques used and extended by learners to produce exciting outcomes.

For D4, learners must demonstrate a high level of dexterity, fluency and a flexible approach to making processes to produce an assured and exciting series of sophisticated outcomes.

For D5, learners must articulate and record ongoing technical and aesthetic evaluations to inform a comprehensive progress of their own work throughout all stages.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the assessment and grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

| Criteria covered | Assignment title | Scenario | Assessment method |
|--|---------------------------------------|---|--|
| P1, P2, P3, P4, P5 M1, M2, M3, M4, M5 D1, D2, D3, D4, D5 | Assignment 1: The Design Brief | A ceramicist has been commissioned to produce a series of ceramic pieces for a major high street and internet retailer. | <p>Work journals, containing initial notes about the assignment and parameters for research.</p> <p>Research materials.</p> <p>Project proposal.</p> <p>Learners' technical log, including COSHH data.</p> <p>Practical work, including design development, maquettes and test samples.</p> <p>Learners' practical work, test pieces, maquettes and final outcomes.</p> <p>Learner evaluation of processes and outcomes set against constraints of the design brief.</p> <p>Tutor observation of studio practice/kiln room work.</p> |

Links to National Occupational Standards, other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Art and Design sector suite. This unit has particular links with the following unit titles in the BTEC Art and Design suite:

| Level 1 | Level 2 | Level 3 |
|------------------------------------|--------------------------------------|---|
| Introduction to 3D Design Crafts | Working with 3D Design Briefs | Exploring Specialist Ceramic Techniques |
| Introduction to 3D Design Products | Working with 3D Design Crafts Briefs | Design Methods in Art and Design |
| | | Design Principles in Art and Design |

Essential resources

For visual recording, learners need access to areas are needed for 3D working across a range of media and materials.

For contextual research, learners need access to a library, computers, the internet, books, journals and a photocopier.

For designing, learners need a clean drawing, area for model making and, access to computers.

For producing finished works, specialist workshop facilities equipped to the appropriate standard for this level of work are essential to simulate professional working environments. Access is needed to a range of ceramic materials, hand and/or machine tools and equipment. Safe storage of raw materials and work in progress is needed.

Learners also need a kiln room with an air extraction system, organised shelving for different temperature firings and suitable space for glazing, spraying and decoration with slips, oxides and underglaze colours and for mixing paper clay.

Plaster working for mould making should be in a separate area from ceramics.

Sink traps should be provided for ceramics materials, which must be disposed of safely.

Employer engagement and vocational contexts

Where possible, centres should aim to develop links with local art, craft and design groups, as well as individual makers. There may be opportunities for studio visits, as well as practitioners delivering aspects of units within centres. Learners should be encouraged to develop questionnaires as a way of sourcing relevant information about working practices. Local museums and galleries may also provide support to centres through organised visits, tours and discussions of collections. The unit offers the opportunity for learners to negotiate a live brief with a suitable client, supported by their tutors.

Links with employers are essential to the delivery of the programme for work experience and future employment.

Vocational learning support resources:

- Learning and Skills Network – www.vocationallearning.org.uk

Business and finance advice:

- local and regional Business Link – www.businesslink.gov.uk

Assignments should be vocationally relevant; centres should consider the delivery of 'live projects', for example, to support the vocational content of the unit and programme.

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

Indicative reading for learners

Textbooks

- Birks T – *Hans Coper* (Alphabet and Image, 2005) ISBN 978-1899296248
- Blandino B – *The Figure in Fired Clay* (A&C Black, 2001) ISBN 978-0713652055
- Bosworth J – *Ceramics with Mixed Media* (A&C Black, 2006) ISBN 978-0713667714
- Flynn M – *Ceramic Figures: A Directory of Artists* (A&C Black, 2002) ISBN 978-0713651171
- French N – *Potter's Directory of Shape and Form* (A&C Black, 1998) ISBN 978-0713648799
- Genders C – *Sources of Inspiration* (A&C Black, 2004) ISBN 978-0713670981
- Gunter V – *500 Figures in Clay* (Lark Books, 2005) ISBN 978-1579905477
- Hessenberg K – *Ceramics for Gardens and Landscape* (A&C Black, 2000) ISBN 978-0713647044
- Hinchcliffe J and Barber W – *Ceramic Style* (Cassell, 1994) ISBN 978-0304343928
- Lane P – *Ceramic Form: Design and Decoration* (A&C Black, 1998) ISBN 978-0713648904
- Lane P – *Contemporary Studio Porcelain* (University of Pennsylvania Press, 2003) ISBN 978-0812237726
- Malone K and Jackson – *Kate Malone: A Book of Pots* (A&C Black, 2003) ISBN 978-0713661804
- Mansfield J – *Ceramics in the Environment* (A&C Black, 2006) ISBN 978-1574982701
- Nigrosh L – *Claywork: Form and Idea in Ceramic Design* (Davis Publications, 1995) ISBN 978-0871922854
- Osterman M M – *The Ceramic Surface* (A&C Black, 2009) ISBN 978-1408113394
- Peterson S and J – *Working with Clay* (Laurence King, 2009) ISBN 978-1856696050
- Picasso C – *Picasso: Painter and Sculptor in Clay* (Harry N Abrams, 1999) ISBN 978-0810943537
- Reijndes A – *The Ceramic Process* (A&C Black, 2005) ISBN 978-0713667684

Journals

Ceramic Monthly

Ceramic Review

Ceramics, Art and Perception

Website

www.craftscouncil.org.uk

The Crafts Council

Delivery of personal, learning and thinking skills

The table below identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

| Skill | When learners are ... |
|------------------------------|---|
| Independent enquirers | producing design ideas for ceramic artefacts considering design in terms of fitness for purpose, against the constraints of the design brief |
| Creative thinkers | developing and proposing design ideas in relation to the brief exploring different ceramic techniques, materials and processes |
| Reflective learners | evaluating the success of their work, against the design brief reviewing use of ceramic techniques and processes |
| Self-managers | managing their use of the ceramics studio and technical support ensuring they follow all health and safety guidelines. |

Although PLTS are identified within this unit as an inherent part of the assessment criteria, there are further opportunities to develop a range of PLTS through various approaches to teaching and learning.

| Skill | When learners are ... |
|------------------------------|---|
| Independent enquirers | analysing the design brief proposing design ideas |
| Creative thinkers | exploring design ideas and source materials when producing visuals exploring their use of ceramic techniques and processes |
| Reflective learners | making judgements about their application of the design process considering the purpose of the brief, and their approach to it |
| Self-managers | managing the production process. |

● Functional Skills – Level 2

| Skill | When learners are ... |
|---|--|
| ICT – Use ICT systems | |
| Access, search for, select and use ICT-based information and evaluate its fitness for purpose | sourcing information from websites and electronic publications about ceramicists and processes |
| English | |
| Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions | reading information about ceramics reading and absorbing information about health and safety/ COSHH data |
| Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively | gathering and recording relevant technical information about ceramics techniques and processes writing summaries when reviewing design process. |