Unit 9: Art and Design: Explore 3D Design Crafts

Unit code:	**F/502/3894**
QCF Level:	**BTEC Level 1**
Credit value:	**4**
Guided learning hours:	**30**

Unit aim

This practical unit explores working in one or more 3 dimensional (3D) design crafts. Learners will develop skills relevant to their creative activities as they investigate a combination of visual language and professional craft materials and methods.

Unit introduction

The learners will have the opportunity to develop personal, work-related skills relevant to creative activities in the craft industry. For the purposes of this unit ceramics, textiles, wood and withies, leatherwork, metalwork and lightweight model making will be investigated. Learners will focus on practising skills in one or more materials.

Primary and secondary resource material will be used to inspire ideas and build research skills. References will be made to how the formal elements of 3 dimensional craft work can be used to communicate message, mood or function, in both historical and contemporary contexts.

On achieving this unit learners will develop self-management skills whilst developing ideas, making objects and learning about tools and equipment. Problem solving and the communication of ideas and intentions will be integrated into the creative activities as learners develop relevant visual language skills. Health and safety requirements will be addressed, as relevant safe working practice is essential in all these areas, both for the worker and for the general public, who often view craft processes.

On completion of the unit, the body of work produced may contribute to each learner's portfolio, which will demonstrate their work-related and practical skills – highlighting the use of appropriate materials, techniques and tools to realise an aim. It will demonstrate learners' ability to reflect upon their own work with regard to artistic and practical considerations.

The unit may be delivered in a classroom or studio setting. It may be enhanced by practical activities outdoors, or site visits. Educational visits related to learners' work have great value; these could be to galleries, museums, artist or designer studios, shops or commercial establishments.

Essential resources

The unit requires diverse secondary sources plus historical and contemporary contextual references. Magazines, books, the internet, DVDs, videos, CD ROMs, visits to art galleries, museums, artist or designer studios and commercial premises may all contribute.

Primary research must not be undervalued as ideas are often at their most original and innovative when developed from observational studies.

Good practical facilities and resources within one specialist area, or a full range of general 3D resources, such as are usually available within an art department, will be required to fully address this unit.

Learning outcomes, assessment criteria and unit amplification

To pass this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes		Assessment criteria		Unit amplification
1	Be able to develop ideas for work in 3D design crafts	1.1	Demonstrate knowledge of Formal Elements	□ *Formal elements*: different formal elements eg line, tone, colour, shape, pattern, texture, form, scale, structure, flow and balance
		1.2	Plan ideas from primary and secondary sources	□ *Primary and secondary sources*: planning eg brainstorming, development exercises, materials, techniques, size of work(s); primary sources eg visits to galleries, exhibitions or museums, recording eg sketches, photos; secondary sources eg libraries, websites, scrapbook with photocopies, prints, collected items, clippings, books, magazines, leaflets, TV and other formats; limitations eg time, materials, availability of space
		1.3	Present aims for work in 3D design crafts	□ *Present aims*: methods eg verbally, written, storyboard □ *Design crafts*: types eg ceramics; textiles; wood and withies; leatherwork; metalwork; lightweight modelling
		1.4	Prepare for and contribute to discussions of ideas and opinions	□ *Discussions*: follow main points; make relevant and positive contributions; respect others' rights to speak; aids eg presentation, thumbnail sketches, ideas worksheets, computer-aided visuals

Learning outcomes		Assessment criteria		Unit amplification
2	Be able to produce work in 3D design crafts	2.1	Produce 3D design crafts using appropriate materials, methods and equipment	□ *Materials*: different materials eg leather, withies, thick card, metals, plastics, wood and wood-based products, stone, tesserae, plaster blocks, soap, wax blocks, found objects, scrap materials, paper pulp, papier-mâché, modroc, plasticine, wire, square or round aluminium armature, clay, slips, glazes, oxides, wet plaster, molten wax, textiles, foam, latex, scrap materials, wools, yarns, fabrics □ *Methods*: different methods eg construct, cut, carve, form, shape or model, layer, mould or cast, join, assemble paint, finish set, fire, harden, slump, fuse □ *Tools and equipment*: ceramics eg hand modelling tools, banding wheels, potter's wheel, kilns, glass eg cutters, pincers, grinder, drills; general eg hand and machinery tools, craft knives, scalpels, saws, chisels, embossing tools, vacuum former for use with paper, card, wood, metal, leather and plastics; textiles eg sewing needles, scissors, shears and sewing machines; ICT eg computers, printers, scanners, cameras, □ *Working methods*: materials; methods; processes; correct technical terms
		2.2	Demonstrate self-management skills	□ *Self-management skills*: attendance; punctuality; complete tasks within agreed deadlines; flexibility; take responsibility eg gathering materials, setting up, tidying up; self–motivation; assertiveness; readiness to improve own performance based on feedback
		2.3	Describe measures taken to reduce risks in the work area	□ *Safety*: risks and hazards*;* appropriate dress; personal protective equipment; materials; tools; work area
3	Be able to comment on own work.	3.1	Present information and points of view about their ideas, using appropriate language	□ *Discussions*: own view point eg strengths, weaknesses, improvements; responses; methods eg sketchbook annotations, written notes, verbal feedback, recordings, illustrated verbal presentations, informal discussion, tutorials, group discussions; make relevant and positive contributions; respect others' rights to speak
		3.2	Prepare for and contribute to formal discussions of ideas and opinions.	

Information for tutors

Delivery

This unit focuses on skills used by contemporary designers and makers in the craft industry. Learners will need to be made aware that the definition of the word craft is never exact or specific. Decorative craftwork often borders on fine art, and craft workers are often referred to as designer-makers. Craft objects often have a function and are usually produced individually.

The unit is delivered primarily in the studio where learners have access to a range of techniques and processes. Initial exploration to produce trials and maquettes may be in several different materials or in-depth exploration in one material, such as: clay; pinch pots, slabbing, coiling, throwing, using slips, glazes and oxides; metals; cutting, joining, soldering, welding, painting, applying patina, planishing, annealing; textiles and soft furnishings; machine and hand sewing using fabrics, trimmings, embroidery, knitting, crochet, macramé, appliqué, pattern making, cutting, joining, constructing; lightweight model making; architectural models/theatrical set design (working with scale, perspective, cutting, joining, constructing); model-making for animation – using a flexible armature, plasticine or related products.

A varied approach to delivery is recommended to stimulate and motivate learners to explore the potential of materials and associated methods. Demonstrations of new techniques by the tutor, viewing videos of techniques and processes, taster workshops, group activities and visits are encouraged. For the purpose of effective time management research from a previous unit may be referenced, as the preparation for and clearing away of 3D work is especially time consuming. Learners will be encouraged to take personal responsibility for these activities, and to keep an organised, clean and tidy workplace.

It will be of particular interest for learners to communicate with a professional designer and to investigate the constraints encountered working in the real world. Learners find it an enlightening and motivating experience to hear and see how a professional works, what inspires them, what they make, what materials and techniques they use, what studio space and equipment they have and how the need to make money affects what they make. Open days at further and higher education establishments will be of interest to broaden learners' horizons and to show making and presentation techniques at their best.

The tutor will need to offer direction and support in the research and experimental stages of the work, also guidance in the organisation of the work produced in folders, sketchbooks, on presentation sheets and by trials and maquettes.

Both primary and secondary sources must be investigated. Tutors are advised to select a topic or theme carefully to offer readily available research material and give coherence to the work that will combine the formal elements such as line, tone, colour, shape, pattern, texture, form, scale, structure, flow and balance with the use of materials, techniques and equipment.

A fictional vocational scenario may bring realism to the activities by identifying the client and target audience, and introducing constraints and opportunities for problem solving. Jewellery, candleholders, vessels, stage set model boxes and other functional or purely decorative items may be produced. Alternatively learners may choose to investigate model making for 3D animation. Learners can be encouraged to make their own choices and to communicate clearly when presenting their aims within the parameters of the given brief.

Research is likely to take a 2D form in the early stages, unless working directly in 3D, for example on an observational study in clay or plasticine, but the development of ideas must involve both 2D representation of ideas such as sketches, plans, notes, technical drawings and 3D experimentation (trials and maquettes).

The use of technological media such as computers, printers, scanners, video or stills photography are encouraged alongside traditional and modern hand techniques as they often play an intrinsic part in the development and recording of ideas, and act as evidence for the presentation of a finished piece. If model making for animation is chosen, appropriate computer, photographic and model-making facilities must be combined to give an indication of how the final outcome will look on film.

When researching and developing ideas and producing the final outcome, skills such as self- and time-management, the communication of ideas and intentions, presentation skills and safe practice will be incorporated by means of relevant, integrated tasks. Self-management is essential. Learners will need to collect and record information in an ordered way and review development at each stage of their work. Working as part of a group, especially in animation model making, may be incorporated in the production of the final piece as long as individual achievement is clearly recorded. However, even if learners are not involved in group projects, the key qualities of support, mutual respect and sharing of facilities and resources are inherent in all activities. The ability to give constructive criticism within the peer group, without negativity or giving offence, is an essential skill.

It is necessary for learners to record the methods and processes they use. Many practitioners keep a technical notebook to record details for future reference. This will involve recording techniques step-by-step, and the processes that the materials go through eg firing clay or glass, setting plaster. This can be done using storyboard techniques or labelled photographs as an alternative to purely written evidence. Centre-devised quizzes, writing frames or interactive handouts may also be of use.

Regular feedback should be given to learners, both informally in day-to-day discussion and formally via interim cut-off points within the activities. Learners should be encouraged to discuss the methods used, choices made, the quality of their work and their progress. This may be verbal; informal discussion with the tutor, group discussion or individual presentations. It may be written, in notes and annotation in their sketchbooks, or as final comment on their work. Summative feedback and the opportunity for improvement should be given at the conclusion of an activity. Formative notes may also contribute here. Guidance will be needed to help learners answer questions such as 'Which formal elements were used? What techniques and processes were used? What went well and why? What went badly and why? What new skills were learned? What are the strengths of the work eg use of visual language, materials, methods? Is it fit for purpose? What could improve the work?'

Working in the studio can be hazardous. Learners will need to be aware of the health and safety issues relating to the media, materials and equipment they use. They should know how to reduce risks to themselves and others by thinking and working safely. A common sense approach should be emphasised, rather than merely referring to rules and regulations. Identification of the following is important; appropriate dress eg tie long hair back, no hanging jewellery; protective equipment eg goggles, face masks, gloves, aprons, sensible footwear; materials and tools eg follow manufacturers' guidelines; good ventilation eg when using glues, sprays; work area eg avoid hazards in gangways, trailing leads, not obstructing fire exits, keeping work areas clean and tidy. The keeping of a health and safety logbook by learners may be beneficial.

Outline learning plan

The outline-learning plan has been included in this unit as guidance, and is not meant to be prescriptive. The tutor is encouraged to create outline-learning plans that will suit their own teaching style and also suit their learners.

Topic and suggested assignments/activities
Introduction to the unit Learners will be given an overview of the unit; what they will be doing, what is expected of them and what it is they are aiming for. Learners should consider health and safety throughout, notes could be kept in sketchbooks where appropriate, researching the theme for homework. Quizzes, worksheets and handouts should be used throughout the unit to back up learning. Tutors should give advice on how the learner can file these for later use. It would also be helpful for learners to be shown how to compile their findings, from research and trial work, in accessible way. To help learners start the tutor should discuss possible themes with them. Suggested themes could be organic forms, geometric forms, structures, water, weather etc. Class to discuss possible research opportunities and starting points. The initial presentation of the theme to the learners should generate a group discussion regarding possible research opportunities, visits, outcomes etc and will help to generate enthusiasm and focus in learners and get them started. Discussion of the formal elements used and examples of work by artists and designers to exemplify work. This could be by inviting a local practitioner to work with the learners. Alternatively, visits could be made to craft fairs or the learner could visit shops where craft is sold. Throughout the unit the following questions should be asked and addressed; Which formal elements were used? What techniques and processes were used? What went well and why? What didn't go as planned and why? What could improve the work? These are key questions that will build towards summative evaluation.
The tutor could lead the development of the craft production by asking the learner to produce an item with a purpose based on their themed research, such as a hat stand with an ocean theme.
Present and comment on final outcome (in writing or verbally) at pre-arranged time.

Assessment

Assessment evidence will be cumulative throughout the activities undertaken. It must be viewed holistically as opportunities to cover a particular criterion may well be presented more than once.

To generate assessment evidence learners will be encouraged to discuss the methods used, choices made, the quality of their work and their progress. This may be verbal; in informal discussion with the tutor, in group discussions or individual presentations, and could be an alternative to writing. Observation records by tutors and witness statements by others involved in the delivery (such as visiting artists) are permissible forms of evidence for these. Learners' own written and visual evidence for assessment may be in sketchbooks, on worksheets and presentation sheets and in the final outcome.

To achieve assessment criterion 1.1 learners must be able to demonstrate an understanding of formal elements. These will be identified in learners' own work. Elements such as line and form, the use of scale, colour and texture are likely to be relevant. This knowledge can be assessed from visual, verbal and written evidence.

Learners will show evidence for 1.2 by exploring more than one example of both primary and secondary sources. For primary research, assessment will be of learners' own observational studies, supplemented by their own drawings, photographs or other records. All other sources are secondary. For example, learners might first draw and photograph a machine (primary), then look at books on the subject and the work of engineers, artists or designers (secondary). Assessment will be based on how learners collect, then use, material to plan ideas that meet the needs of the given theme.

The aims provided for 1.3 will be practical and skills based, rather than conceptual, leading to the creation of a body of work and a final outcome. Evidence may take the form of a short written statement near the start of a brief, or a short verbal presentation.

Opportunities will occur throughout the unit for learners to demonstrate competence of 1.4 both formally and informally. Initially these ideas will be a response to the research material learners have gathered, and will continue within the development and modification of the work as it progresses. Evidence can be visual, verbal or written and relate to all aspects of the brief.

Learning outcome 2 may be evidenced through; sketchbooks, studies, worksheets, annotations, action plans, self-assessment checklists, organisation of portfolio, witness testimonies, observation reports, peer group assessment, one-to-one discussions or group discussions, health and safety logbook.

For 2.1 learners will explore more than three types of materials, techniques and processes, showing some development and understanding from the initial trial stage. Some coherent work needs to be produced based on and developed from the original theme and ideas generated. An understanding of appropriate tools, material, scale and time given to the work(s) must be evidenced in more than one piece. There is no pre-requisite number of trials or maquettes that should be produced for this unit but one final outcome is required to show the completion of the design and making process.

Assessment for 2.2 will be on each learner's approach to their practical work and their motivation and desire to succeed. These also relate both to practical activities such as working in a tidy and responsible manner and generic skills such as attendance and punctuality, assertiveness, willingness to respond to feedback and an ability to reflect the set theme. Assessment evidence may be by tutor observation reports, witness testimonies, action plans, self-assessment checklist, organisation of portfolio, peer group assessment, one-to-one discussions or group discussions.

To achieve assessment criterion 2.3 learners need to be able to identify potential risks and hazards within the work area and describe the measures to be taken to reduce the risk. Learners will show that they have followed the health and safety guidelines for the materials, techniques and processes used. Observation of safe practice can be documented by tutors, and from records kept by learners. The keeping of a health and safety logbook by learners may be beneficial; these, and witness statements confirming tutor observation of safe practice in the workshop, are also acceptable evidence.

For assessment criteria 3.1 learners needs to demonstrate some understanding of their use of materials, methods, processes and use some correct technical terms. Comments on the strength and weakness of their work need to be made on more than one aspect of their learning and their work. Final comment may be supported by ongoing evaluative comments, sketchbook annotations, reference to learning from verbal feedback, illustrated verbal presentations and written notes from informal discussion, tutorials or group discussions. The use of audio or visual recording of learners presenting their work, or individual or group critiques may

also support this evidence. Witness testimonies, observation reports, peer group assessment, self-assessment checklist, one-to-one discussions and group discussions will all provide assessment evidence.

For assessment criterion 3.2 learners need to be able to make relevant and positive contributions to discussions regarding their work and respect others' rights to speak. Learners must be able to add positive comment on feedback given to them.

Suggested resources

Books

De Waal, E - *Ceramics Design Sourcebook* (Struik Publishers, 2003)

Grillo P J – *Form, Function and Design* (Dover Publications Incorporated, 1975) ISBN 9780486201825

Marks T – *Good Design*: *Deconstructing Form, Function, and What Makes Design Work* (Rockport Publishers, 2009) ISBN 9781592535293

Tanner, A - *Batch: Craft, Design and Product: the work of the Designer/Maker* (Bloomsbury publishing, 2010)

Journal

Crafts magazine – published bi-monthly by the Crafts Council, Selvedge magazine.

Websites

www.amazon.co.uk – a huge selection of subject specific books including ceramics

www.craftscouncil.org.uk – search for makers, organisations and opportunities