National Unit Specification: general information

Unit title: Art and Design: 3D: Basic Construction Skills (SCQF level 5)

Unit code: F9VF 11

Superclass: JC

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Source: Scottish Qualifications Authority

Version: 01

Summary

In this Unit candidates will develop the skills and techniques which will allow them to develop a range of three dimensional (3D) skills at an introductory level.

Candidates will construct 3D forms and structures in both linear and solid forms that meet the requirements of a brief after preparatory visual analysis of a subject.

This Unit is suitable for candidates who:

- wish to develop basic knowledge and skill in the use of 3D construction skills
- are undertaking a general programme of Art and Design Units

Outcomes

1 Produce a linear spatial form in response to a given brief.
2 Produce a 3D model to a given brief.
3 Produce a simple 3D scale model to a given brief.

Recommended entry

While entry is at the discretion of the centre, candidates would benefit from having previous experience of an Art and Design Course or Units.

National Unit Specification: general information (cont)

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Credit points and level

1 National Unit credit at SCQF level 5 (6 SCQF credit points at SCQF level 5*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

Core Skills

There is no automatic certification of Core Skills in this Unit.

Opportunities for developing aspects of Core Skills are highlighted in the Support Notes of this Unit specification.

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Produce a linear spatial form in response to a given brief.

Performance Criteria

(a) Identify the requirements of the brief.
(b) Develop a design for a linear spatial form that meets the requirements of the brief.
(c) Select media, materials and a suitable technique(s) for production of a linear spatial form.
(d) Demonstrate effective and safe handling of media, materials and techniques in the production of a linear spatial form.

Outcome 2

Produce a 3D model to a given brief.

Performance Criteria

(a) Identify the requirements of the brief.
(b) Develop a design for a 3D form that meets the requirements of the brief.
(c) Select media, materials and a suitable technique(s) for the production of a 3D model.
(d) Demonstrate effective and safe handling of media, materials and techniques.

Outcome 3

Produce a simple 3D scale model to a given brief.

Performance Criteria

(a) Identify the requirements of the given brief.
(b) Select media, materials and a suitable technique(s) for production of a simple 3D scale model.
(c) Demonstrate effective and safe handling of media, materials and suitable technique(s).

National Unit Specification: statement of standards (cont)

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Evidence requirements for this Unit

Evidence is required to demonstrate that candidates have achieved all Outcomes and Performance Criteria.

Product and written and/or oral evidence is required to show that candidates have achieved all of the Outcomes and Performance Criteria.

Candidates will produce a folio of work that includes:

- the development of 3D design ideas that meet the requirements of the brief(s) (one linear spatial form and one 3D model) (minimum of one A2 sheet per brief)
- the effective and safe use of selected materials, techniques and processes appropriate to the 3D brief (linear spatial form and 3D model)
- the production of a linear spatial form and a 3D model using the design ideas developed in response to the brief(s)
- production of a final 3D scale model that demonstrates accurate application and safe use of selected media materials and techniques

The evidence for this Unit must be produced under open book conditions throughout delivery of the Unit, with progress monitored by the teacher/lecturer on an ongoing basis. Teachers/lecturers will use an assessor observation checklist to record the candidate's safe use of working practices during the practical components of the Unit.

The folio of work may be presented in a sketchbook, workbook or display board format and all assessment evidence must be retained along with a copy of the brief(s).

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit is an optional Unit of the National Certificate in Art and Design at SCQF level 6. It can also be taken as a free-standing Unit. This Unit is designed to offer candidates the opportunity to explore and build introductory 3D construction skills within the context of a selected 3D discipline(s). The aim is to allow candidates to creatively experiment with developing ideas and concepts for 3D form and structure and to develop confidence in handling 3D media, materials and techniques. Candidates should be able to apply the skills they have learned, developing ideas and producing a series of 3D forms/models to specified requirements.

Guidance on learning and teaching approaches for this Unit

Teachers/lecturers should provide demonstrations and exemplars of 3D construction methods and techniques and it is recommended that the principles of construction are introduced in the Unit making reference to any relevant architecture, art and design movements, or disciplinary examples. Teachers/lecturers may also consider the use of industrial visits to reinforce 3D working practices and methods. These approaches could be used to provide a stimulating visual launch to this project based Unit.

Candidates should have the opportunity to explore a wide range of available media, materials, basic construction techniques and methods. Candidates should also have the opportunity to explain the development of their work in preparation for summative assessment. Candidates can work individually for the duration of this Unit or in groups and the Unit should be activity based with the teacher/lecturer demonstrating methods of construction/development.

If possible, the use of technology is to be encouraged, eg to enhance learning, video and/or film material could be used to demonstrate construction methods or 3D forms. When constructing the candidate briefs the teacher/lecturer should ensure that there are no artificial barriers to learning and assessment and candidate's special needs should be taken into account when planning learning experiences and preparing assessments.

For Outcome 1 linear spatial forms should be constructed by cutting and joining materials eg straws, thread, balsa, wire, dowelling, plastic rods, wood etc. The model could be based on the visual analysis of 3D form and solid forms can be introduced where appropriate.

In Outcome 2 candidates will design and construct a 3D model. The focus of the brief could be contextualised to suit a range of disciplines eg building, interior, exhibition, artefact, sculptural form, etc. During this activity the candidate should be encouraged to use a variety of materials eg card, balsa, plastics, expanded polystyrene, wire, thread, etc. Consideration should also be given to negative and positive shapes, symmetry, balance, and proportion, building on knowledge gained in Outcome 1.

National Unit Specification: support notes (cont)

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In Outcome 3 candidates will demonstrate accuracy in replicating scale and effective and safe media handling and construction skills when producing their simple 3D scale model.

Opportunities for developing Core Skills

Candidates may have opportunities to develop aspects of the Core Skill of *Communication* through teacher/lecturer led group discussions and through commentary when analysing 3D form.

Candidates may have opportunities to develop aspects of the Core Skill of *Problem Solving* through investigation of the brief, the development process and ongoing reflective evaluation during the production of the 3D models.

Guidance on approaches to assessment for this Unit

A suitable instrument of assessment for this Unit would be a practical exercise. The Outcomes may be assessed on an individual basis or a combined staged assessment can be used to cover all four Outcomes.

If holistic assessment is being used, the 3D briefs should indicate the scope of the 3D activity, realistic timescales for completion and should be constructed to provide candidates with some flexibility of choice. A checklist for safe working practices could be used for Outcomes 2-4.
Through open questions and group discussion, 3D construction techniques could be considered exploring the use of materials and media related to specific construction methods.

Candidates can be encouraged to keep a photographic record of all their 3D models and these should show:

- compliance with the requirements of the briefs
- the effective use of selected 3D applied construction methods, media and techniques developed during this Unit

Teachers/lecturers must be satisfied that the evidence submitted is the work of individual candidates. Although group work may be used as a learning and teaching approach, any work that contributes to a candidate's assessment evidence must be carried out on an individual basis to ensure authenticity.

National Unit Specification: support notes (cont)

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Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003), SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website **www.sqa.org.uk/assessmentarrangements**

History of changes to Unit

Version	Description of change	Date