

Higher National Unit Specification

General information for centres

Unit title: Model Making: Equipment and Tools

Unit code: DW7C 34

Unit purpose: This Unit is designed to introduce candidates to a wide range of tools and equipment used in model making. The knowledge and skills acquired in this Unit will prepare the candidate for many of the practical model making manufacturing techniques required for the project based elements of the course and for employment in the industry.

On completion of the Unit the candidate should be able to:

- 1 Identify hand tools.
- 2 Identify and appraise model making equipment
- 3 Demonstrate safe use of model making equipment.

Credit points and level: 1 HN Credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*).

**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.*

Recommended prior knowledge and skills: Candidates should possess a basic knowledge and understanding of the key workshop tools and equipment used in model making. These may be demonstrated by the achievement of standard/higher grade Craft and or Product Design. A 3D Design craft/furniture based NC may be also be appropriate. Prior industry based experience would also be applicable.

Core Skills: There are opportunities to develop the Core Skill of Communication at SCQF level 6 in this Unit. although there is no automatic certification of Core Skills or Core Skills components. Further details are provided in the support notes.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Assessment: Outcomes 1 and 2 in this Unit should consist of short written questions and answers. Outcome 3 should be practically based.

Outcomes 1, 2, may be integrated into a single assessment.

Outcome 3 should be conducted under controlled, supervised conditions.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, knowledge and/or skills, and evidence requirements are mandatory.

Where evidence for Outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Candidates should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Identify hand tools

Knowledge and/or skills

- ◆ Name
- ◆ Main function
- ◆ Operational procedures
- ◆ Maintenance
- ◆ Accessories
- ◆ Health and Safety

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ identify the correct industry recognised name of a minimum of 3 selected tools
- ◆ describe the main function of the selected tools
- ◆ outline the correct operational procedures when preparing and using selected tools
- ◆ outline the correct maintenance of selected tools
- ◆ describe the safe use of selected tools

The evidence must be presented as a written report or oral presentation. If a written report, it must consist of a minimum of 400 words. If an Oral Presentation, the minimum duration should be 10 minutes.

Assessment guidelines

The assessment of this Outcome can be stand alone or combined with Outcome 2. An observational checklist may be used to ensure the candidate has addressed all the knowledge and skills requirements. This Unit may be combined with other Units on the 3D Design Framework. If this is done, then an Assessment Matrix should be created.

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Equipment and Tools

Outcome 2

Appraise model making equipment

Knowledge and/or skills

- ◆ Correct name
- ◆ Main function
- ◆ Operational procedures
- ◆ Maintenance
- ◆ Accessories
- ◆ Health and Safety

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ identify the correct industry recognised name of selected equipment
- ◆ describe the main function of the selected equipment
- ◆ outline the correct operational procedures when preparing and using selected equipment
- ◆ outline the correct maintenance of selected equipment
- ◆ describe the safe use of selected equipment

The evidence-must be presented as a written report or oral presentation. If a written report, it must consist of a minimum of 400 words. If an Oral Presentation, the minimum duration should be 10 minutes.

Assessment guidelines

The assessment of this Outcome can be stand alone or combined with Outcome 1. An observational checklist may be used to ensure the candidate has addressed all the knowledge requirements. This Unit may be combined with other Units on the 3D Design Framework. If this is done, an Assessment Matrix should be created.

Outcome 3

Demonstrate safe use of model making equipment

Knowledge and/or skills

- ◆ Material selection
- ◆ Working environment
- ◆ Safe operation
- ◆ Workshop practice

Higher National Unit specification: statement of standards (cont)

Unit title: Model Making: Equipment and Tools

Evidence Requirements

Candidates will need to provide evidence to demonstrate their knowledge and/or skills by showing that they can:

- ◆ select operating requirements/specifications
- ◆ prepare working environment
- ◆ use equipment to the manufacturer's specification
- ◆ use equipment to meet current Health and Safety legislation
- ◆ store equipment and clean the working environment after use

The evidence will be presented as part of a controlled workshop based practical exercise and should last a minimum of 15 minutes.

Assessment guidelines

The assessment for this Outcome should take the form of a practical exercise. The assessment should be carried out after Outcomes 1 and 2 have been delivered or at the end of the Unit. This is at the discretion of the presenting centre. An observational checklist may be used to ensure the candidate has addressed all the knowledge and/or skills requirements.

Administrative Information

Unit code:	DW7C 34
Unit title:	Model Making: Equipment and Tools
Superclass category:	VF
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Higher National Unit specification: support notes

Unit title: Model Making: Equipment and Tools

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 will provide an understanding of the key tools and equipment used throughout model making. This unit may be used in other creative areas that require the use of tools and equipment as part of their course such as:

- ◆ print making
- ◆ jewellery
- ◆ sculpture
- ◆ ceramics
- ◆ furniture

The applied knowledge of the correct and safe use of tools and equipment is essential. It is also a requirement for progression to many HE Design courses. The candidate will also gain an insight into the factors involved in running and maintaining a workshop/studio. Knowledge gained will be fundamental in the candidate's ability to plan and implement a given brief.

Guidance on the delivery and assessment of this Unit

Demonstrations and discussions on the identification and use of tools and equipment will form the basis of the assessment of Outcomes 1 and 2. If it will not be possible to observe the candidate demonstrate the use of all the tools and equipment covered in this Unit, then opportunities should be given to integrate and observe throughout the course. The delivery of Outcome 3 should put the onus on safety and that it is the candidate's responsibility to ensure that they observe procedure. The assessment of Outcome 3 may involve a candidate demonstrating several operational functions while cutting different material over a set time. This will be monitored by tutor with ongoing feedback. Where applicable, Health and Safety should be clearly outlined to manufacturers specification and current legislation. Knowledge gained in this unit can be integrated and assessed within practical based units throughout the course. Outcomes may also form part of a theory/contextual-based unit.

Opportunities for developing Core Skills

Although skills in Communication are not formally assessed candidates will be expected to source, produce and present materials to the standard acceptable in the vocational area. Some support, including appropriate software packages, could be made available for written work, to ensure the use of recognised structures and formats, to check spelling and punctuation for accuracy and to ensure good presentation.

As they demonstrate the use of equipment candidates should consider the most appropriate style and terminology for their listeners, and should ensure that the information given is accurate and relevant.

Higher National Unit specification: support notes (cont)

Unit title: Model Making: Equipment and Tools

They should be able to:

- ◆ collate, organise and structure the demonstration effectively
- ◆ signpost key points
- ◆ select and produce support materials if appropriate
- ◆ use non-verbal communication techniques, such as making eye contact and maintaining an interested expression
- ◆ be clear, audible and use an appropriate pace for listeners
- ◆ respond to any questions confidently and in a way that progresses communication

Open learning

Due to practical nature of outcome three this may be difficult. Outcomes 1 and 2 could be posted on a Virtual Learning Environment (VLE) with candidate submitting answers.

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative Outcomes for Units. For information on these, please refer to the SQA document *Guidance on Alternative Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs*, which is available on SQA's website: www.sqa.org.uk.

General information for candidates

Unit title: Model Making: Equipment and Tools

This Unit will provide you with an understanding of the key tools and equipment used throughout model making and other design disciplines. You will gain knowledge in the correct and safe use of tools and equipment. The knowledge and skills you will gain in this Unit will contribute to the problem solving skills that are necessary for model making. You will also gain an insight into the factors involved in running and maintaining a workshop.

For Outcomes 1 and 2 you will identify a selection of tools and equipment used in model making.

For Outcome 3 you will demonstrate the correct use of tools and equipment.

The delivery of Outcome 3 will highlight the importance of safety and that it is your responsibility to ensure that you observe safe procedure. This will be monitored by tutor with ongoing feedback. Health and Safety should be observed at all times. Knowledge gained in this unit can be integrated and assessed within practical based units throughout the course. Outcomes may also form part of a theory/contextual-based unit.