

Draft National Unit Specification



Unit title: Designing and Modelling (Access 3)

SCQF: level 3 (6 SCQF credit points)

Unit code: to be advised

Unit outline

In this Unit, learners will follow, with guidance, a simple design process. They will make a model from a design idea, and refine the design based on evaluation of the model. Through these activities, learners will develop awareness of sustainability and recycling. Learners will also learn safe working practices in a workshop, or similar, environment.

Learners who complete this Unit will be able to:

- 1 Make, with guidance, a simple physical model from design drawings and sketches
- 2 Amend a design based on simple evaluation of a model

This Unit is a mandatory Unit of the Access 3 Design and Technology Course and is also available as a free-standing Unit. The Unit Specification should be read in conjunction with the *Unit Support Notes* which provide advice and guidance on delivery, assessment approaches and development of skills for learning, skills for life and skills for work. Exemplification of the standards in this Unit is given in the *National Assessment Resource*.

Recommended entry

Entry to this Unit is at the discretion of the centre. In terms of prior learning and experience, relevant experiences and outcomes may also provide an appropriate basis for doing this Unit. Further information on relevant experiences and outcomes will be given in the *Unit Support Notes*.

Equality and inclusion

This Unit Specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. For further information please refer to the *Unit Support Notes*.

Standards

Outcomes and assessment standards

Outcome 1

The learner will:

- 1 Make, with guidance, a simple physical model from design drawings and sketches by:**
 - 1.1 Extracting dimensions from given drawings
 - 1.2 Selecting suitable materials, giving consideration to issues of sustainability
 - 1.3 Selecting and using appropriate tools and equipment
 - 1.4 Applying safe working practices

Outcome 2

The learner will:

- 2 Amend a design based on simple evaluation of a model by:**
 - 2.1 Assessing the effectiveness of the model against given design criteria
 - 2.2 Identifying improvements which could be made to the design
 - 2.3 Producing sketches to communicate an amended design

Evidence Requirements for the Unit

Assessors should use their professional judgement, subject knowledge and experience, and understanding of their learners, to determine the most appropriate ways to generate evidence and the conditions and contexts in which they are used.

For this Unit, learners must provide evidence (which could be photographic) of the completed physical model, and the sketches showing the amended design, supplemented by observational evidence of the Assessment Standards.

Exemplification of assessment will be provided in the *National Assessment Resource*. Advice and guidance on possible approaches to assessment is provided in the *Unit Support Notes*.

Development of skills for learning, skills for life and skills for work

It is expected that learners will develop broad, generic skills through this Unit. The skills that learners will be expected to improve on and develop through the Unit are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and drawn from the main skills areas listed below. These must be built into the Unit where there are appropriate opportunities.

2 Numeracy

2.2 Money, time and measurement

4 Employability, enterprise and citizenship

4.2 Information and communication technology (ICT)

5 Thinking skills

5.2 Understanding

5.3 Applying

Amplification of these is given in SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work*. The level of these skills should be at the same SCQF level of the Unit and be consistent with the SCQF level descriptor. Further information on building in skills for learning, skills for life and skills for work is given in the *Unit Support Notes*.

Administrative information



Published: December 2011 (draft version 1.0)

Superclass: to be advised

History of changes

Version	Description of change	Authorised by	Date

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