



## **National Unit specification: general information**

**Unit title:** Sustainable Design (SCQF level 6)

**Unit code:** H2TS 12

**Superclass:** TD

**Publication date:** October 2012

**Source:** Scottish Qualifications Authority

**Version:** 01

### **Summary**

In this Unit, candidates will develop awareness and understanding of sustainable and ecological design. They will investigate and evaluate visual imagery and factual research information selected from a range of sources, before identifying the benefits of sustainable design within their chosen field.

This is an optional Unit in the National Certificate (NC) in Architecture and Art at SCQF level 6 and the NC in Architecture and Interior Design at SCQF level 6, but is also available as a freestanding Unit.

### **Outcomes**

- 1 Research basic sustainable design principles.
- 2 Investigate sustainable materials and their potential uses.
- 3 Produce a case study illustrating a sustainable approach to design.

### **Recommended entry**

While entry is at the discretion of the centre, it would be beneficial for candidates to have some prior knowledge of sustainable design and an interest in the issues surrounding new energy, waste management and the innovation of recycled and new materials.

## **General information (cont)**

**Unit title:** Sustainable Design (SCQF level 6)

### **Credit points and level**

1 National Unit credit at SCQF level 6: (6 SCQF credit points at SCQF level 6\*)

*\*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**

Opportunities to develop aspects of Core Skills are highlighted in the support notes of this Unit specification.

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

## **National Unit specification: statement of standards**

**Unit title:** Sustainable Design (SCQF level 6)

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**

Research basic sustainable design principles.

#### **Performance Criteria**

- (a) Identify and collate research material in relation to chosen field.
- (b) Identify the benefits given by choosing sustainable design.

### **Outcome 2**

Investigate sustainable materials and their potential uses.

#### **Performance Criteria**

- (a) Identify a range of sustainable materials.
- (b) Identify a minimum of two examples of the use of sustainable materials.

### **Outcome 3**

Produce a case study illustrating a sustainable approach to design.

#### **Performance Criteria**

- (a) Select an example of the successful use of sustainable design.
- (b) Identify the key sustainable features of the design.
- (c) Produce a presentation which communicates the above.

## **National Unit specification: statement of standards (cont)**

**Unit title:** Sustainable Design (SCQF level 6)

### **Evidence Requirements for this Unit**

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

Written and/or oral and product evidence in the form of collated visual research will be produced under open-book conditions. Candidates will produce a folio of evidence that is collated, organised and presented in a logical way using either traditional or electronic formats. The folio will include:

- ◆ research in the form of identified sustainability issues in relation to a chosen area of design
- ◆ use of a variety of information sources
- ◆ organised thoughts and opinions about sustainability in relation to design
- ◆ annotated visual research
- ◆ identification of materials and technologies for a chosen application
- ◆ review of environmental impact
- ◆ a list of sources of research material

Research evidence should be presented as an annotated sketchbook, notebook or worksheets relating to the use of sustainability in the context of design, leading to a presented case study on a selected area of sustainable design.

## **National Unit specification: support notes**

### **Unit title:** Sustainable Design (SCQF level 6)

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 is an optional Unit in the National Certificate (NC) in Architecture and Art at SCQF level 6 and the NC in Architecture and Interior Design at SCQF level 6, but is also available as a freestanding Unit.

Where it is delivered as part of a programme of art and design based Units, it is recommended that centres integrate delivery with other Units in the programme.

This Unit is intended to develop candidates' knowledge and understanding of the importance of designing for sustainability. This will help to inform the design decisions they make and encourage them to work in an ethical and accountable way.

'Design for sustainability' is a term that is interchangeable with alternatives such as 'green design', 'eco-design' or 'design for environment'. Its role in potential improving the quality of life for everyone, including future generations, is one that candidates should become fully aware of during this Unit.

### **Guidance on learning and teaching approaches for this Unit**

#### **Outcome 1**

Through lectures and tutor-led discussion, the topic of sustainable design should be introduced and its impact on candidates' areas of study discussed. Candidates should be encouraged to retain collected and collated Information for reference. Following a period of research in a given area, candidates should highlight the benefits involved in sustainable design. This may be recorded as within an annotated sketchbook or workbook.

Assessment of this Outcome may be combined with Outcome 2, or take place as part of a single assessment for this Unit.

#### **Outcome 2**

Candidates may be encouraged to collect or create samples of sustainable materials within an annotated sketchbook or workbook. Candidates should also be encouraged to investigate the work of professional designers who have used similar, sustainable materials in their work.

Assessment of this Outcome may be combined with Outcome 1, or take place as part of a single assessment for this Unit.

## National Unit specification: support notes (cont)

**Unit title:** Sustainable Design (SCQF level 6)

### Outcome 3

Candidates should develop and demonstrate a sound understanding of the impact of sustainable design philosophy through a completed case study which identifies the key sustainable features of the design. This could be communicated through diagrams, annotation, materials and images.

### Guidance on approaches to assessment for this Unit

Opportunities may be taken to link or integrate with related Units being delivered and a thematic approach adopted for both delivery and assessment.

Assessment for Outcome 1 can be combined with Outcome 2 as part of a single assessment for this Unit. If a single assessment is used then all candidate evidence should be in an annotated sketchbook, notebook or workbook.

The final case study could be produced digitally or by means of a traditional A2 presentation. Candidates should express essential ideas and information accurately and coherently.

### 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)*.

### Opportunities for developing Core Skills

In this Unit candidates may have opportunities to develop aspects of the Core Skills of *Communication, Information and Communication Technology* and *Problem Solving*.

*Communication* may be developed through written and/or verbal reporting throughout.

*Information and Communication Technology* may be developed through the nature of the research and investigation.

*Problem Solving* may be developed through all Outcomes where candidates will be assigned specific tasks that will require a certain level of critical thinking, planning and evaluating.

### 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](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Unit

Version	Description of change	Date

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