



## Higher National Unit specification

### General information

**Unit title:** Computer Arts and Design: Theory and Practice  
(SCQF level 8)

**Unit code:** HG57 35

**Superclass:** CB

**Publication date:** October 2016

**Source:** Scottish Qualifications Authority

**Version:** 01

### Unit purpose

This unit is designed to prepare the learner for working within the disciplines of Computer Art and Design by providing the underpinning theoretical knowledge and language used in their discipline. It is intended that the learner will, as part of this process, develop research and analytical skills within a chosen area of Computer Arts and Design.

### Outcomes

On successful completion of the unit the learner will be able to:

- 1 Investigate and evaluate the key theories used in the production of Computer Arts and Design.
- 2 Apply the key theories used in the production of Computer Arts and Design to a given brief.

### Credit points and level

1 Higher National unit credit at SCQF level 8: (8 SCQF credit points at SCQF level 8)

## General information (cont)

**Unit title:** Computer Arts and Design: Theory and Practice  
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### Recommended entry to the unit

Access to this unit is at the discretion of the centre. However, it would be beneficial if learners were proficient in the use of a computer, and had experience of an Art and/or Design project. This may be evidenced by the possession of relevant National units such as *Technologies for Computer Arts and Design*, *Basic Web Design or Screen Design*, or by prior experience, Higher Art and Design and/or Craft Design and Technology. It is also recommended that learners have either completed, or are currently undertaking HN unit, *Digital Imaging* if completing this unit as part of the Group Award Computer Arts and Design.

### Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this unit specification.

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

There are opportunities to develop the Core Skills of *Information and Communication Technology* and *Problem Solving* at SCQF level 6 in this unit, although there is no automatic certification of Core Skills or Core Skills components.

### 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.

The Assessment Support Pack (ASP) for this unit provides assessment and marking guidelines that exemplify the national standard for achievement. It is a valid, reliable and practicable assessment. Centres wishing to develop their own assessments should refer to the ASP to ensure a comparable standard. A list of existing ASPs is available to download from SQA's website (<http://www.sqa.org.uk/sqa/46233.2769.html>).

### 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.

Further advice can be found on our website [www.sqa.org.uk/assessmentarrangements](http://www.sqa.org.uk/assessmentarrangements).

## Higher 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.

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. Learners 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

Investigate and evaluate the key theories used in the production of Computer Arts and Design.

#### Knowledge and/or Skills

- ◆ Interactivity
- ◆ Engagement
- ◆ Information structures
- ◆ Navigation
- ◆ Computer networks

### Outcome 2

Apply the key theories used in the production of Computer Arts and Design to a given brief.

#### Knowledge and/or Skills

- ◆ Interactivity
- ◆ Engagement
- ◆ Information structures
- ◆ Navigation
- ◆ Computer networks

### Evidence Requirements for this unit

Learners will need to provide evidence to demonstrate their Knowledge and/or Skills across all Outcomes by showing that they can:

#### Outcome1

- ◆ investigate and evaluate all the key terms identified in the Knowledge and/or Skills.
- ◆ assemble a written and illustrative research portfolio for each of the Knowledge and/or Skills, including explanatory notes.

Work produced outwith controlled conditions must be subject to authentication by the Tutor.

## **Higher National Unit specification: Statement of standards (cont)**

**Unit title:** Computer Arts and Design: Theory and Practice  
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### **Outcome 2**

- ◆ apply theoretical knowledge within a chosen Computer Arts and Design discipline.
- ◆ produce an art and design artefact or product to a given brief.



## Higher National Unit Support Notes

**Unit title:** Computer Arts and Design: Theory and Practice  
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Unit Support Notes are offered as guidance and 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

The purpose of this unit is to provide learners with some background knowledge and conceptual theories for the practice of computer arts and design. This could include interactive design, web design, digital video, illustration, time-based art, computer art 2D/3D animation and 3D modelling.

The approach to delivery is one that requires the learner to integrate an appropriate design project on the course with that of Outcome 2. It is therefore suggested that this unit be delivered in the context of practical units.

The unit is intended primarily as a research unit. The learner should collect information and produce a work/sketchbook and evaluate this information by analysing a number of case studies within their own chosen subject area. Finally they have to apply this knowledge, by evaluating a range of work produced by lead practitioners, again within their chosen area.

Within the context of the Outcomes and knowledge/skills there has been no recommendation or identification of specific subject content. This is because Computer Arts and Design are rapidly evolving disciplines and any prescriptive content could be out of date very quickly. Instead this section will highlight the range of theoretical issues associated with Computer Arts and Design at the time of writing. There will be an ongoing review of subject content to ensure fitness for purpose.

Theory in the practice of Computer Arts and Design:

- ◆ Interactivity: consider the types of interactivity involved with using computer environments for example closed interactivity; open interactivity; menu based interactivity and simulation/games based interactivity.
- ◆ Engagement: consider how we engage with computer environments. Media theories could be applied here such as film, theatre or storytelling.
- ◆ Information structures: consider how we structure information in computer environments through grids, databases and modular systems.
- ◆ Navigation: consider how we navigate computer space.
- ◆ Computer networks: consider the implications on art and design practice of video and file sharing; blogging, social media and the worldwide web in general.

## Higher National Unit Support Notes (cont)

**Unit title:** Computer Arts and Design: Theory and Practice  
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### Guidance on approaches to delivery of this unit

This unit has been developed as part of the Computer Arts and Design Group Award and has been identified as one of three key skill units in the award.

It is expected that the learner will have gained some experience of computer art and design before undertaking this unit. It is therefore suggested that this unit is introduced at a later stage of the delivery of the Group Award to allow the learner to contextualise the given information.

This unit may be taught alone as an independent research unit. However it is suggested that this unit is used to support practical units within the framework. These could include *Compositing and Motion Graphics, Basic Web Design, Animation 1, 3D Computer Visualisation and Screen Based Design*. This could allow for extended research by the learner, for a given project brief.

Evidence Requirements for assessment have been expressed in the guidelines for each Outcome. Assessment should be continuous, and assessed summatively on completion of both Outcomes.

### Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

A number of product-based assessment instruments will be required which will include work/sketchbooks of gathered evidence, illustrated report writing and evidence of practical work. Outcomes 1 and 2 can be assessed holistically. Combined assessment should be encouraged across a range of Art and Design units as appropriate to the framework in which the unit is offered. If this approach is taken, then a matrix for assessment should be devised.

## Higher National Unit Support Notes (cont)

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### Assessment Guidelines

#### Outcome 1

All evidence should be contextualised with both contemporary and historical social, philosophical and artistic ideas where appropriate. The learner should demonstrate that they have developed research skills within their chosen area of Computer Arts and Design. They must demonstrate that they can identify and collate appropriate material that shows an understanding of the key theories used in the production/practice of Computer Arts and Design.

#### Outcome 2

The learner should demonstrate that they have developed the ability to understand theoretical ideas within their chosen area of Computer Arts and Design. This can be evidenced through informal observation, formative assessment and summative project work

This Outcome could be assessed individually. However there is an opportunity for integration of this Outcome with a number of existing design projects throughout a variety of Art and Design, Craft and Design, Interactive design, Web, Television and Broadcast Media and Creative Industries frameworks. If used in this manner, an assessment matrix should be devised.

### Opportunities for 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 social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at [www.sqa.org.uk/e-assessment](http://www.sqa.org.uk/e-assessment).

## Higher National Unit Support Notes (cont)

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### Opportunities for developing Core and other essential skills

Learners will develop skills in the use of *Information and Communication Technology (ICT)* as they apply theoretical knowledge within a selected CAD discipline. Formative activities should allow learners to analyse in detail relevant issues affecting the production of a product or artefact. They should be made aware of the range of tools and media available in the creation and implementation of design solutions. Learners should be advised on effective and responsible use of equipment and software applications, and learn methods for keeping all research data secure and well organised. They should be aware of the importance of saving and performing backups and of the need to develop efficient systems of recording, coding and storing notes and drafts of design work.

Applying theoretical knowledge and producing a finished Art and Design product to a given brief will develop creative problem solving skills to an advanced level. There are opportunities to consider integration with work across the award. Evaluation which examines all stages of the design in context would be on-going and learners could benefit from group and individual discussion to reinforce critical judgement.



## History of changes to unit

Version	Description of change	Date

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## General information for learners

### Unit title: Computer Arts and Design: Theory and Practice (SCQF level 8)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

The purpose of this unit is to provide you with the background knowledge of different theories in the practice of computer arts and design. This could include interactive design, web design, digital video, illustration, time-based art, computer art 2D/3D animation and 3D modelling. It will help to place your elected vocational area in context and allow you to explore a range of theoretical issues which will then help you understand some of the conceptual ideas behind using the computer to produce art and design. You will be expected to undertake a number of research activities and some analysis into the following subject areas.

Theory in the practice of Computer Arts and Design:

- ◆ Interactivity
- ◆ Engagement
- ◆ Information structures
- ◆ Navigation
- ◆ Computer networks

In Outcome 1 you will be expected to investigate and evaluate an illustrative sketch/workbook of examples from the above list and apply it to your chosen subject area. Carrying out this research will help you establish a basis for further study and introduce you to the disciplines of organisation, management and selection of material.

In Outcome 2 you should learn how to apply your knowledge to a practical art or design brief or assignment. Having made the investigation and analysis, you should have a clear idea of the theory and practice in Computer Arts and Design. These considerations will then be applied to the development of practical work. The content of this will very much depend on your course of study, including Fine Art, Visual Communication, 3D Design, Film, Television and Broadcast Media, and Games Design.

You will be expected to produce an art and design artefact or product to a given brief.