Building Digital Solutions (National 3)

SCQF: level 3 (9 SCQF credit points)

Unit code: H21X 73

Unit outline

The general aim of this Unit is for learners to develop basic knowledge, understanding and practical problem-solving skills in using development software. Learners will develop their practical skills by creating simple digital solutions (such as computer games, animations or applications) using features of development software. Learners will also show they have an understanding of some of the key features of development software.

Learners who complete this Unit will be able to:

1   Develop simple digital solutions using appropriate development software
2   Identify some of the key features of development software

This Unit is a mandatory Unit of the National 3 Computing Science 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 Unit Assessment Support*.

Recommended entry

Entry to this Unit is at the discretion of the centre. However, learners would normally be expected to have attained the skills, knowledge and understanding required by the following or equivalent qualifications and/or experience:

♦   National 2 Information and Communications Technology or relevant Units

In terms of prior learning and experience, relevant experiences and outcomes may also provide an appropriate basis for doing this Unit.

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   Develop simple digital solutions using appropriate development software by:

1.1   Outlining the main steps to develop a solution
1.2   Identifying objects required
1.3   Using and managing a sequence of operations
1.4   Testing the solution to ensure expected output
1.5   Identifying and rectifying simple errors

Outcome 2

The learner will:

2   Identify some of the key features of development software by:

2.1   Listing the basic objects and/or operations
2.2   Stating their purpose

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.

Evidence of the Assessment Standards for Outcome 1 may be derived from a variety of development software environments, including computer games, animation or other applications, with only one product from one environment being submitted for assessment. Evidence for Outcome 2 may be oral or written.

Exemplification of assessment is provided in *Unit Assessment Support*. 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

2.1   Information handling

4   Employability, enterprise and citizenship

4.2   Information and communication technology (ICT)

5   Thinking skills

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: April 2012 (version 1.0)

Superclass: CB

History of changes to National Unit Specification

Version	Description of change	Authorised by	Date