



Group Award Specification for:

**National Certificate in Computing with Digital Media
at SCQF level 5**

Group Award Code: GJ7T 45

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1 Introduction

This document was previously known as the Arrangements document. The purpose of this document is to:

- ◆ assist centres to implement, deliver and manage the qualification
- ◆ provide a guide for new staff involved in offering the qualification
- ◆ inform course managers teaching staff, assessors, learners, employers and HEIs of the aims and purpose of the qualification
- ◆ provide details of the range of learners the qualification is suitable for and progression opportunities

This is the Group Award Specification for the National Certificate (NC) in Computing with Digital Media at SCQF level 5. This document includes: background information on the development of the Group Award, its aims, guidance on access, details of the Group Award structure, and guidance on delivery.

The National Certificate (NC) in Computing with Digital Media is a Group Award that conforms to the specification for such awards published by SQA in December 2005. It replaces Scottish Group Awards in Digital Media Computing available at SCQF levels 4, 5 and 6. This provides a progression for candidates towards further study or to employment.

Each of the National Certificate Computing with Digital Media awards have different sizes (ie number of credits) and structures. There are no Graded Units in the award. The award framework at SCQF level 5 provides a wide choice of optional Units to make up the requirement of credits for the Group Award, including the following areas:

- ◆ Computer games
- ◆ Network security and administration
- ◆ Web design and multimedia
- ◆ Mobile technology

The rationale for revising this National Certificate in Digital Media Computing award is to bring the Unit content up-to-date and address some shortcomings in the current SQA provision at SCQF level 5, develop some new Units that look at new technologies and applications and fill some gaps in other computing areas.

A Qualification Design Team (QDT) was formed to address the issues mentioned above for the Digital Media Computing awards at SCQF levels 4, 5 and 6. Research in the sector found the most common issues to be:

- ◆ Repetition in mandatory Units across levels
- ◆ Gap between SCQF levels 5 and 6 too difficult
- ◆ Title of Group Awards
- ◆ Content of some SCQF level 6 Units more difficult than some HN Units
- ◆ Some Units out-of-date
- ◆ Few group/project Units available
- ◆ Balance of Unit content variable
- ◆ Some new Units using current technologies and applications needed

Other findings of the QDT included the need to incorporate, or link, National 4 and National 5 courses and also re-address the way Core Skills are included/delivered within the awards.

It was agreed that it was not necessary to have the same number of mandatory Units at each level and the following framework changes have been made:

SCQF level 4 — six mandatory Units (6 SQA Unit credits)

SCQF level 5 — seven mandatory Units (8 SQA Unit credits)

SCQF level 6 — six mandatory Units (7 SQA Unit credits)

The QDT also agreed that Core Skills, although essential, did not have to be mandatory, and these have been moved to the optional section. This gives centres some flexibility in the delivery of Core Skills within the award, should learners come with a Core Skills profile containing the required level of Core Skills for the Group Award.

Target Groups

The NC in Computing with Digital Media at SCQF level 5 is aimed at:

- ◆ Full-time NC learners who have already completed the award at SCQF level 4
- ◆ Full-time NC learners who have come from school with National 4 or National 5 qualifications
- ◆ Part-time learners who may wish to pick up individual Units or work towards the Group Award

Employment Opportunities

The NC in Computing with Digital Media at SCQF level 5 provides qualifications that could help learners get entry level jobs in the following areas:

- ◆ Desktop support
- ◆ Network administration
- ◆ Network support
- ◆ Games design
- ◆ Software development
- ◆ Mobile applications development
- ◆ Web development

Progression

On successful completion of the NC in Computing with Digital Media at SCQF level 5, learners may be able to progress onto any of the following NC programmes:

- ◆ NC in Computing with Digital Media at SCQF level 6
- ◆ NC in Computing Technical Support at SCQF level 6
- ◆ NC in Computer Games: Creative Development at SCQF level 6
- ◆ NC in Computer Games: Software Development at SCQF level 6

At the discretion of the centre, learners may also progress directly onto the following HN programmes:

- ◆ HNC/HND Computer Games Development
- ◆ HNC Computing: Networking
- ◆ HNC Computing: Technical Support
- ◆ HNC Computing: Software Development
- ◆ HNC/HND Information Technology
- ◆ HNC/HND Interactive Media
- ◆ HNC/HND 3D Computer Animation

2 Qualification(s) structure

This Group Award is made up of 12 SQA Unit credits (72 SCQF credit points), of which 8 SQA Unit credits (48 SCCQF credit points) are at SCQF level 5 in the mandatory section and the remaining 4 SQA Unit credits (24 SCQF credit points) are from the optional section.

A mapping of Core Skills development opportunities is available in Section 5.3.

To gain the award, learners are required to successfully complete all seven mandatory Units (8 SQA Unit credits), plus optional Units amounting to 4 SQA Unit credits.

2.1 Structure

Table 1 (Mandatory Units)

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
F1KR	11	Computing: Computer Hardware and Systems	1	6	5
F1KS	11	Computing: Digital Media Elements for Applications	1	6	5
H6S9	45	Computing: Applications Development	1	6	5
H6S7	45	Computing: Project	2	12	5
H7E9	45	Information Literacy	1	6	5
H7EA	45	Network Literacy	1	6	5
H7EB	45	Social Media Literacy	1	6	5

The table below shows the set of optional Units from which learners may select to make up the balance of SCQF points required for the award.

Table 2 (Optional Units)

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
F3GB Or H23W	10 74	Communication Literacy	1 1	6 6	4 4
F3GF Or H225	10 74	Numeracy Numeracy	1 1	6 6	4 4
F3GB Or H23W	11 75	Communication Literacy	1 1	6 6	5 5
F3GF Or H225	11 75	Numeracy Numeracy	1 1	6 6	5 5
FN84	11	Mathematics for Interactive Computing	1	6	5
H60C	45	Computing: Academic Skills	1	6	5
H60C	46	Computing: Academic Skills	1	6	6
F57F	11	Preparing to Work	1	6	5
HX9V	45	Computer Games: Design*	1	6	5

HX9W	45	Computer Games: Media Assets*	1	6	5
HX9X	45	Computer Games: Development*	1	6	5
HW51	45	Computing: Interactive Multimedia*	1	6	5
H614	45	Computing: Website Graphics	1	6	5
HW52	45	Computing: Website Design and Development*	1	6	5
HW4X	45	Digital Media: Still Images*	1	6	5

*please refer to History of Changes for unit revisions

4 code	2 code	Unit title	SQA credit	SCQF credit points	SCQF level
HW4Y	45	Digital Media: Moving Images*	1	6	5
HW4W	45	Digital Media: Audio*	1	6	5
H1T1	11	Mobile Technology Systems	1	6	5
H2P7	11	Mobile Technology: Device Connectivity	1	6	5
H2P2	11	Mobile Technology and Personal Computer Applications	1	6	5
H1T2	11	Mobile Technology: Web Page Creation	1	6	5
H2P5	11	Programming for Mobile Devices	1	6	5
F1KF	11	Computing: Install and Maintain Computer Hardware	1	6	5
F1KP	11	Computing: Install and Maintain Computer Software	1	6	5
F1KH	11	Computing: Computer Networking Fundamentals	1	6	5
D36N	11	Enterprise Activity	1	6	5
H613	45	Computing: Website Design Fundamentals	1	6	5
H60D	45	Computing: Weblogs	1	6	5
H223	75	Software Design and Development	1.5	9	5
*J27E	75	Information System Design and Development	1.5	9	5
F1FD	11	PC Passport: Internet and On-line Communication	1	6	5
F1FB	11	PC Passport: IT Software - Spreadsheet and Database	1	6	5
F1FC	11	PC Passport: Word Processing and Presenting Information	1	6	5
F1FA	11	PC Passport: IT Systems	0.5	3	5
H9E2	45	Data Security	1	6	5
H9J0	45	Digital Forensics	1	6	5
H9YH	45	Ethical Hacking	1	6	5
FN8R	11	Games Programming	1	6	5
HA6J	45	Web Apps: Presentations	1	6	5
HA6L	45	Web Apps: Spreadsheets	1	6	5
HA6M	45	Web Apps: Word Processing	1	6	5

*please refer to History of Changes for unit revisions

The mandatory section of the NC in Computing with Digital Media at SCQF level 5 is made up entirely of Units at the level of the award. The mandatory Units incorporate the new National Progression Award in Digital Passport award SCQF level 5, which covers basics ICT skills such as using Office Applications, file management, online skills including making proper use of social media. The other mandatory Units cover the basics of programming (Computing: Applications Development), technical support (Computing: Computer Hardware and Systems) and making use of digital media in applications such as graphics, audio and video (Computing: Digital Media Elements for Applications). This is to give learners a basic understanding of the different areas of computing that they may want to specialise in as they progress with their studies after completing this award.

The mandatory section also includes the new 2-credit Computing: Project Unit, which is intended to give learners the opportunity to use skills, knowledge and understanding

developed through the successful completion of the other Units within the award. Furthermore it should give learners the opportunity to further develop key skills in planning, decision making, working with others, communications, implementation, problem solving, time management, testing and evaluation. It is recommended that it be undertaken in the later part of the academic year, so that learners have successfully completed a number of Units from within the Group Award and will have gained suitable knowledge, skills, experience and confidence with which to carry out the requirements effectively.

The nature of the project will depend on the particular area of computing chosen by the assessor and learners via negotiation. It may be that the project is to create a website, computer game, software application, interactive multimedia application or even build a pc or setup a network. The area chosen will most likely also be reflected in the centre's choice of optional Units. The optional Units allow centres to add NPA awards in Computer Games Development, Mobile Technology, Computer Networks and Systems, Website Enterprise, Web Design Fundamentals, Digital Media Editing as well as the National 5 in Computer Science.

3 Aims of the qualification(s)

The award aims to provide a structured progression of learning contexts in which learners can gain experience and develop a range of skills and knowledge designed to underpin key aspects of computer science: technical skills (hardware and networking), programming skills, productivity skills, communication skills and team working skills.

3.1 General aims of the qualification(s)

The general aims of the qualification are to:

- 1 Develop learners' knowledge, understanding and skills in planning, developing and evaluating.
- 2 Develop employment skills, particularly relating to the Computing industry.
- 3 Develop learning and transferable skills, including Core Skills especially in the areas of Communication, ICT, Problem Solving and Working with Others.
- 4 Enable progression within the SCQF framework to future study at NC or HN level.
- 5 Provide flexibility and appropriateness for a variety of delivery modes.

3.2 Specific aims of the qualification(s)

The specific aims of this award are to:

- 6 Equip learners with broad general knowledge and skills within a range of computing areas, such as technical support, application development, digital media, networking and social media.
- 7 Allow learners to specialise in a particular vocational area, such as games development, application development, web design and technical support.
- 8 Prepare learners for the jump to NC at SCQF level 6 or HN level, by developing their academic skills, as well as their knowledge and skills in all relevant areas of computing.
- 9 Expose learners to current computing practices and give them experience in using the latest technologies.
- 10 Maximise flexibility in qualification design to permit centres to customise the award to the needs of their learners.
- 11 Encourage learners to work in teams to develop key skills in project management, planning, decision making, working with others, communications, implementation, problem solving, time management, testing and evaluation.

4 Recommended entry to the qualification(s)

Entry to this qualification is at the discretion of the centre. The following information on prior knowledge, skills, experience or qualifications that provide suitable preparation for this qualification has been provided as guidance only.

Learners would benefit from having attained the skills, knowledge and understanding required by having achieved one of the following or equivalent qualifications and/or experience:

- ◆ National Certificate in Digital Media Computing at SCQF level 4
- ◆ National Certificate in Computing with Digital Media at SCQF level 4
- ◆ National 4 Computing Science
- ◆ National 5 Computing Science
- ◆ Relevant Computing related NPA at SCQF level 4 or 5

4.1 Core Skills entry profile

The Core Skill entry profile provides a summary of the associated assessment activities that exemplify why a particular level has been recommended for this qualification. The information should be used to identify if additional learning support needs to be put in place for learners whose Core Skills profile is below the recommended entry level or whether learners should be encouraged to do an alternative level or learning programme.

It is recognised that some learners, particularly adult returners, may not possess a specific Core Skills profile on entry, hence entry level is only recommended. In this case, it is recommended that centres carry out an appropriate evaluation of their Core Skills to ensure that they have the necessary prerequisites to provide them with a realistic opportunity of achieving on this award.

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Communication	4	Read, understand and a straightforward document. Produce a document which conveys several pieces of information
Numeracy	4	Carry out a variety of straightforward number tasks. Extract and interpret information from a table.
Information and Communication Technology	4	Carry out ICT activities which involve straightforward operations and application software. Use ICT to locate information in different formats from a range of local or remote data sources, using appropriate search techniques, and selecting relevant information. Demonstrate safe practice in using ICT to handle information by recognising security risks and acting accordingly

Core Skill	Recommended SCQF entry profile	Associated assessment activities
Problem Solving	4	Plan and carry out a straightforward activity to deal with a problem, work out an action plan, choose and obtain resources needed, carry out an action plan.
Working with Others	3	Work co-operatively with at least one other person to identify a role. Carry out a role, adapting actions and behavior.

5 Additional benefits of the qualification in meeting employer needs

This qualification was designed to meet a specific purpose and what follows are details on how that purpose has been met through mapping of the Units to the aims of the qualification. Through meeting the aims, additional value has been achieved by linking the Unit standards with those defined in National Occupational Standards and/or trade/professional body requirements. In addition, significant opportunities exist for learners to develop the more generic skill, known as Core Skills through doing this qualification.

5.1 Mapping of qualification aims to Units

- 1 Develop learners' knowledge, understanding and skills in planning, developing and evaluating.
- 2 Develop employment skills, particularly relating to the Computing industry.
- 3 Develop learning and transferable skills, including Core Skills especially in the areas of Communication, ICT, Problem Solving and Working with Others.
- 4 Enable progression within the SCQF framework to future study at NC or HN level.
- 5 Provide flexibility and appropriateness for a variety of delivery modes.
- 6 Equip learners with broad general knowledge and skills within a range of areas within computing, such as technical support, application development, digital media, networking and social media.
- 7 Allow learners to specialise in a particular vocational area, such as games development, application development, web design and technical support.
- 8 Prepare learners for the jump to NC level 6 or HN level, by developing their academic skills, as well as their knowledge and skills in all relevant areas of computing.
- 9 Expose learners to current computing practices and give them experience in using the latest technologies.
- 10 Maximise flexibility in qualification design to permit centres to customise the award to the needs of their learners.
- 11 Encourage learners to work in teams to develop key skills in project management, planning, decision making, working with others, communications, implementation, problem solving, time management, testing and evaluation.

Code	Unit title	Aims											
		1	2	3	4	5	6	7	8	9	10	11	
F1KR 11	Computing: Computer Hardware and Systems		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F1KS 11	Computing: Digital Media Elements for Applications	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H6S9 45	Computing: Applications Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H6S7 45	Computing: Project	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
H7E9 45	Information Literacy		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H7EA 45	Network Literacy		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H7EB 45	Social Media Literacy		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F3GB 10	Communication		✓	✓	✓	✓			✓		✓		
F3GF 10	Numeracy		✓	✓	✓	✓			✓		✓		
F3GB 11	Communication		✓	✓	✓	✓			✓		✓		
F3GF 11	Numeracy		✓	✓	✓	✓			✓		✓		

Code	Unit title	Aims											
		1	2	3	4	5	6	7	8	9	10	11	
FN84 11	Mathematics for Interactive Computing		✓	✓	✓	✓	✓	✓	✓	✓		✓	
H60C 45	Computing: Academic Skills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H60C 46	Computing: Academic Skills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F57F 11	Preparing to Work	✓	✓	✓	✓	✓			✓			✓	
HX9V 45	Computer Games: Design	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HX9W 45	Computer Games: Media Assets	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HX9X 45	Computer Games: Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HW51 45	Computing: Interactive Multimedia		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H614 45	Computing: Website Graphics		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HW52 45	Computing: Website Design and Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HW4X 45	Digital Media: Still Images		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HW4Y 45	Digital Media: Moving Images		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
HW4W 45	Digital Media: Audio		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H1T1 11	Mobile Technology Systems		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H2P7 11	Mobile Technology: Device Connectivity		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H2P2 11	Mobile Technology and Personal Computer Applications		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H1T2 11	Mobile Technology: Web Page Creation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H2P5 11	Programming for Mobile Devices	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F1KF 11	Computing: Install and Maintain Computer Hardware		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Code	Unit title	Aims											
		1	2	3	4	5	6	7	8	9	10	11	
F1KP 11	Computing: Install and Maintain Computer Software		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
F1KH 11	Computing: Computer Networking Fundamentals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
D36N 11	Enterprise Activity	✓	✓	✓	✓	✓			✓			✓	
H613 45	Computing: Website Design Fundamentals	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H60D 45	Computing: Weblogs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H223 75	Software Design and Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
H226 75	Information System Design and Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

5.2 Mapping of National Occupational Standards (NOS) and/or trade body standards

National Occupational Standards (NOS) for IT Users v3 (e-skills UK March 2009) set out what an individual is expected to achieve at work in a given occupation. Developed by employers across the UK, NOS set out measurable skills and knowledge required to perform competently in the workplace.

The areas of competence covered are:

Core		
IPU: Improving productivity using IT		
Using IT Systems	Using IT to Find and Exchange Information	Using Productivity Tools and Applications
IUF: FS IT user fundamentals SIS: Set up an IT system OSP: Optimise IT system performance ITS: IT security for users	ICF: FS IT communication fundamentals INT: Using the Internet UMD: Using mobile IT devices EML: Using e-mail PIM: Personal information management software UCT: Using collaborative technologies	ISF:FS IT software fundamentals AV: Audio and Video Software BS: Bespoke or specialist software CAS: Computerised accounting software DB: Database software DMS: Data management software DIS: Design and imaging software DPS: 2D Drawing and planning software DTP: Desktop Publishing Software MM: Multimedia software PS: Presentation software PM: Project management software SS: Spreadsheet software WS: Website software WP: Word processing software

National Occupational Standard

Unit Code	Unit title	National Occupational Standard																									
		Core	Using IT Systems					Using IT to Find and Exchange Information					Using Productivity Tools and Applications														
		IPU	IUF	SIS	OSP	ITS	ICF	INT	UMD	EML	PIM	UCT	ISF	AV	BS	CAS	DB	DMS	DIS	DPS	DTP	MM	PS	PM	SS	WS	WP
F1KR 11	Computing: Computer Hardware and Systems		✓	✓																							
F1KS 11	Computing: Digital Media Elements for Applications	✓												✓	✓				✓			✓					
H6S9 45	Computing: Applications Development	✓																									
H6S7 45	Computing: Project	✓											✓		✓					✓				✓			
H7E9 45	Information Literacy	✓	✓	✓	✓	✓	✓						✓	✓	✓				✓				✓		✓		✓
H7EA 45	Network Literacy	✓		✓		✓		✓		✓		✓															
H7EB 45	Social Media Literacy	✓			✓	✓		✓				✓															
F3GB 10	Communication																										
F3GF 10	Numeracy																										
F3GB 11	Communication																										
F3GF 11	Numeracy																										
FN84 11	Mathematics for Interactive Computing																										
H60C 45	Computing: Academic Skills						✓	✓					✓										✓				
H60C 46	Computing: Academic Skills						✓	✓			✓		✓										✓				✓

National Occupational Standard																													
		Core		Using IT Systems					Using IT to Find and Exchange Information					Using Productivity Tools and Applications															
Unit Code	Unit title	IPU	IUF	SIS	OSP	ITS	ICF	INT	UMD	EML	PIM	UCT	ISF	AV	BS	CAS	DB	DMS	DIS	DPS	DTP	MM	PS	PM	SS	WS	WP		
F57F 11	Preparing to Work						✓	✓					✓														✓		
HX9V 45	Computer Games: Design	✓																		✓									
HX9W 45	Computer Games: Media Assets	✓												✓	✓				✓			✓							
HX9X 45	Computer Games: Development	✓																											
HW51 45	Computing: Interactive	✓					✓	✓				✓	✓	✓	✓				✓	✓		✓				✓	✓		
H614 45	Computing: Website Graphics	✓	✓										✓						✓			✓				✓			
HW52 45	Computing: Website Design and Development	✓	✓				✓	✓					✓						✓	✓		✓		✓		✓	✓		
HW4X 45	Digital Media: Still Images	✓													✓				✓			✓							
HW4Y 45	Digital Media: Moving Images	✓												✓	✓							✓							
HW4W 45	Digital Media: Audio	✓												✓	✓							✓							
H1T1 11	Mobile Technology Systems		✓	✓					✓																				
H2P7 11	Mobile Technology: Device Connectivity		✓	✓				✓	✓																				

National Occupational Standard																											
		Core	Using IT Systems					Using IT to Find and Exchange Information					Using Productivity Tools and Applications														
Unit Code	Unit title	IPU	IUF	SIS	OSP	ITS	ICF	INT	UMD	EML	PIM	UCT	ISF	AV	BS	CAS	DB	DMS	DIS	DPS	DTP	MM	PS	PM	SS	WS	WP
H2P2 11	Mobile Technology and Personal Computer Applications		✓			✓			✓			✓	✓		✓					✓		✓			✓		✓
H1T2 11	Mobile Technology: Web Page Creation	✓																		✓		✓				✓	
H2P5 11	Programming for Mobile Devices	✓																									
F1KF 11	Computing: Install and Maintain Computer Hardware		✓	✓	✓																						
F1KP 11	Computing: Install and Maintain Computer Software		✓		✓	✓																					
F1KH 11	Computing: Computer Networking Fundamentals			✓																							
D36N 11	Enterprise Activity																										
H613 45	Computing: Website Design Fundamentals	✓	✓					✓					✓													✓	
H60D 45	Computing: Weblogs	✓	✓					✓					✓													✓	

		National Occupational Standard																										
		Core	Using IT Systems					Using IT to Find and Exchange Information					Using Productivity Tools and Applications															
Unit Code	Unit title	IPU	IUF	SIS	OSP	ITS	ICF	INT	UMD	EML	PIM	UCT	ISF	AV	BS	CAS	DB	DMS	DIS	DPS	DTP	MM	PS	PM	SS	WS	WP	
H223 75	Software Design and Development	✓											✓		✓													
H226 75	Information System Design and Development	✓											✓				✓					✓				✓		

Interactive Media and Computer Games National Occupational Standards

Key Purpose: To research, design and produce interactive media and computer games products for release through multi-channel outlets

IM1 Work Effectively In Interactive Media and Computer Games	
Project Initiation	
IM2 Initiate Interactive Media Projects	Project Support and Exploitation
IM3 Provide Creative and Strategic Direction For Interactive Media Projects	IM29 Manage Online Engagement
IM27 Analyse Data in Interactive Media and Computer Games	Rights Management
	IM28 Manage Intellectual Property Rights
Design	Testing
IM4 Create Narrative Scripts for Interactive Media Products	IM24 Devise and Evaluate User Testing of Interactive Media Products
IM5 Design Interactive Media Products	IM25 Conduct User Testing of Interactive Media Products
IM6 Design Electronic Games	IM26 Test Electronic Games
IM7 Design User Interfaces for Interactive Media Products	
IM8 Determine the Implementation of Designs for Interactive Media Products	Development
	IM18 Use Authoring Tools to Create Interactive Media Products
Content	IM19 Use Mark-Up in Interactive Media Products
IM9 Plan Content for Interactive Media Products	IM20 Optimise Web Pages for Search Engines
IM10 Write and Edit Copy for Interactive Media Products	IM21 Use Style Sheets in Interactive Media Products
	IM22 Use Scripting Languages in Interactive Media Products
	IM23 Use Programming Languages in Interactive Media Products
Asset Management	Asset Creation
IM11 Obtain Assets for Use In Interactive Media Products	IM14 Create Animated Assets for Interactive Media Products
IM12 Prepare Assets for Use in Interactive Media Products	IM15 Create Art for Electronic Games
IM13 Direct Asset Production for Interactive Media Products	IM16 Create Sound Effects for Interactive Media Products
	IM17 Create Music for Interactive Media Products

Interactive Media and Computer Games National Occupational Standards

Unit Code	Unit title	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM 10	IM11	IM12	IM13	IM14	IM15	IM16	IM17	IM18	IM19	IM20	IM21	IM22	IM23	IM24	IM25	IM26	IM27	IM28	IM29
F1KR 11	Computing: Computer Hardware and Systems																													
F1KS 11	Computing: Digital Media Elements for Applications	✓																												
H6S9 45	Computing: Applications Development	✓	✓	✓		✓		✓	✓	✓														✓	✓	✓				
H6S7 45	Computing: Project																													
H7E9 45	Information Literacy																													
H7EA 45	Network Literacy																													
H7EB 45	Social Media Literacy																													
F3GB 10	Communication																													
F3GF 10	Numeracy																													
F3GB 11	Communication																													
F3GF 11	Numeracy																													
FN84 11	Mathematics for Interactive Computing																													
H60C 45	Computing: Academic Skills																													
H60C 46	Computing: Academic Skills																													
F57F 11	Preparing to Work																													

Interactive Media and Computer Games National Occupational Standards

Unit Code	Unit title	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM 10	IM11	IM12	IM13	IM14	IM15	IM16	IM17	IM18	IM19	IM20	IM21	IM22	IM23	IM24	IM25	IM26	IM27	IM28	IM29
HX9V 45	Computer Games: Design	✓	✓	✓		✓	✓	✓		✓																				
HX9W 45	Computer Games: Media Assets	✓	✓	✓			✓			✓	✓	✓	✓	✓	✓	✓	✓	✓											✓	
HX9X 45	Computer Games: Development	✓							✓															✓	✓	✓	✓			
HW51 45	Computing: Interactive Multimedia	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓					✓	✓					✓	✓				
H614 45	Computing: Website Graphics	✓									✓	✓	✓						✓			✓								
HW52 45	Computing: Website Design and Development	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓						✓	✓		✓			✓	✓				
HW4X 45	Digital Media: Still Images Editing	✓	✓	✓							✓	✓	✓			✓														
HW4Y 45	Digital Media: Video Editing	✓	✓	✓							✓	✓	✓																	
HW4W 45	Digital Media: Audio Editing	✓	✓	✓							✓	✓	✓				✓	✓												
H1T1 11	Mobile Technology Systems																													
H2P7 11	Mobile Technology: Device Connectivity																													
H2P2 11	Mobile Technology and Personal Computer Applications																													

Interactive Media and Computer Games National Occupational Standards

Unit Code	Unit title	IM1	IM2	IM3	IM4	IM5	IM6	IM7	IM8	IM9	IM 10	IM11	IM12	IM13	IM14	IM15	IM16	IM17	IM18	IM19	IM20	IM21	IM22	IM23	IM24	IM25	IM26	IM27	IM28	IM29	
H1T2 11	Mobile Technology: Web Page Creation	✓													✓	✓	✓	✓	✓	✓		✓								✓	
H2P5 11	Programming for Mobile Devices	✓	✓																					✓	✓	✓					
F1KF 11	Computing: Install and Maintain Computer Hardware																														
F1KP 11	Computing: Install and Maintain Computer Software																														
F1KH 11	Computing: Computer Networking Fundamentals																														
D36N 11	Enterprise Activity																														
H613 45	Computing: Website Design Fundamentals	✓	✓	✓		✓		✓	✓	✓										✓		✓									
H60D 45	Computing: Weblogs																														
H223 75	Software Design and Development																														
H226 75	Information System Design and Development																														

5.3 Mapping of Core Skills development opportunities across the qualification(s)

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
F1KR 11	Computing: Computer Hardware and Systems							S	S	S	S	S
F1KS 11	Computing: Digital Media Elements for Applications	S	S			S	S	S	S	S		
H6S9 45	Computing: Applications Development					S	S	E(5)	E(5)	E(5)		
H6S7 45	Computing: Project	S	S			S	S	E(5)	E(5)	E(5)	E(4)	E(4)
H7E9 45	Information Literacy			S	S	E(5)	E(5)	E(5)	E(5)	E(5)		
H7EA 45	Network Literacy					E(5)						
H7EB 45	Social Media Literacy	S				S	S				S	S
F3GB 10	Communication	E(4)	E(4)									
F3GF 10	Numeracy			E(4)	E(4)							
F3GB 11	Communication	E(5)	E(5)									
F3GF 11	Numeracy			E(5)	E(5)							
FN84 11	Mathematics for Interactive Computing			E(5)	E(4)	S(5)	S(5)	S(5)	S(5)	S(5)		
H60C 45	Computing: Academic Skills	S(4)	S(4)			S(4)	S(4)					
H60C 46	Computing: Academic Skills	S(5)	S(5)			S(5)	S(5)					
F57F 11	Preparing to Work	S	S			S	S	S	S	S		
HX9V 45	Computer Games: Design	S	S			S	S	E(5)	S	S	S	S
HX9W 45	Computer Games: Media Assets					S	E(5)	E(5)	S	S	S	S
HX9X 45	Computer Games: Development					S	E(5)	E(5)	S	S	S	S
HW51 45	Computing: Interactive Multimedia					S	S	E(5)	S(5)	S(5)		

Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
H614 45	Computing: Website Graphics					S	S					
HW52 45	Computing: Website Design and Development					E(5)	E(5)	E(5)	E(5)	E(5)		
HW4X 45	Digital Media: Still Images	S	S			E(5)	E(5)	E(5)	E(5)	E(5)		
HW4Y 45	Digital Media: Moving Images	S	S			E(5)	E(5)	E(5)	E(5)	E(5)		
HW4W 45	Digital Media: Audio	S	S			E(5)	E(5)	E(5)	E(5)	E(5)		
H1T1 11	Mobile Technology Systems	S	S			S	S	S	S	S		
H2P7 11	Mobile Technology: Device Connectivity	S	S			S	S	S	S	S		
H2P2 11	Mobile Technology and Personal Computer Applications	S	S	S	S	E(5)	E(5)	S	S	S		
H1T2 11	Mobile Technology: Web Page Creation					S	S					
H2P5 11	Programming for Mobile Devices	S	S			S	S	S	S	S		
F1KF 11	Computing: Install and Maintain Computer Hardware							S	S	S	S	S
F1KP 11	Computing: Install and Maintain Computer Software					S	S	S	S	S		
F1KH 11	Computing: Computer Networking Fundamentals							S	S	S	S	S
D36N 11	Enterprise Activity							S	S	S	S	S

H613 45	Computing: Website Design Fundamentals					S	S	S	S			
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Unit code	Unit title	Communication		Numeracy		ICT		Problem Solving			Working with Others	
		Written	Oral	Using Number	Using Graphical Information	Accessing Information	Providing/Creating Information	Critical Thinking	Planning and Organising	Reviewing and Evaluating	Working Co-operatively with Others	Reviewing Co-operative Contribution
H60D 45	Computing: Weblogs	S	S								S	S
H223 75	Software Design and Development						E(5)					
H226 75	Information System Design and Development						E(5)					

5.4 Assessment Strategy for the qualification(s)

Unit code	Unit title	Assessment			
		Outcome 1	Outcome 2	Outcome 3	Outcome 4
F1KR 11	Computing: Computer Hardware and Systems	Short answer questions under closed-book, supervised conditions.	Short answer questions under closed-book, supervised conditions.	Practical task under open-book supervised conditions. Completion of log books or an assessor checklist.	
F1KS 11	Computing: Digital Media Elements for Applications	Multiple-choice questions under closed-book, supervised conditions.	Open-book. Production of multiple media elements and integration of them into a multimedia application. Completion of an activity log sheet.		
H6S9 45	Computing: Applications Development	Open-book project to create an application with planning, development, testing and evaluation stages.			
H6S7 45	Computing: Project	Open-book project with planning, design, implementation and evaluation stages.			
45	Information Literacy	Production of an e-portfolio containing a robust sample of evidence under closely controlled conditions.			
45	Network Literacy	Production of an e-portfolio containing a robust sample of evidence under closely controlled conditions.			
45	Social Media Literacy	Production of an e-portfolio containing a robust sample of evidence under closely controlled conditions.			
F3GB 10	Communication	Observation of reading, writing, speaking and listening recorded on a checklist.			
F3GF 10	Numeracy	Numeracy skills demonstrated by a combination of written tasks, oral questioning & observation, recorded on a checklist.			
F3GB 11	Communication	Observation of reading, writing, speaking and listening recorded on a checklist.			
F3GF 11	Numeracy	Numeracy skills demonstrated by a combination of written tasks, oral questioning & observation, recorded on a checklist.			
FN84 11	Mathematics for Interactive Computing	Each Outcome should consist of a practical test under closed-book, supervised conditions lasting no more than 1 hour or a larger single test covering all 4 Outcomes lasting no more than 2 hours.			
H60C 45	Computing: Academic Skills	Production of a portfolio/e-portfolio of evidence covering a range of practical open-book tasks			
H60C 46	Computing: Academic Skills	Production of a portfolio/e-portfolio of evidence covering a range of practical open-book tasks			

Unit code	Unit title	Assessment			
		Outcome 1	Outcome 2	Outcome 3	Outcome 4
F57F 11	Preparing to Work	Production of an e-portfolio under open-book, supervised conditions.			N/A
HX9V 45	Computer Games: Design	Production of an e-portfolio under open-book, controlled, supervised conditions. Consisting of two complete computer game proposals for two different platforms; and one complete computer game design document.			
HX9W 45	Computer Games: Media Assets	Production of an e-portfolio under open-book, controlled, supervised conditions. Consisting of a short report comparing media in an existing game, a plan for production of media assets and then a log of media produced.			
HX9X 45	Computer Games: Development	Open-book practical task to create a computer game.	A test document of the computer game created	Short report evaluating the game created, under open-book conditions.	
HW51 45	Computing: Interactive Multimedia	Outcomes 1 and 2 are open-book, consisting of one website incorporating client-side programming code to add interactivity.		N/A	
H614 45	Computing: Website Graphics	Multiple-choice questions under closed-book, supervised conditions, lasting no more than 45mins.	Practical task involving production of graphics for a webpage under open-book conditions.	Practical task involving creation of a webpage under open-book conditions.	
HW52 45	Computing: Website Design and Development	Plan for a website to meet the requirements of a given brief under open-book, supervised conditions.	Produce a design document for a website. Open-book and supervised.	Outcomes 3 and 4: Practical task construct web pages to meet the requirements of a design and test the operation of the finished website. Open-book and supervised.	Produce an evaluation report of the finished website. Open-book and supervised.
HW4X 45	Digital Media: Still Images	An integrated approach to assessment is recommended for all three units. Project-based task under open-book conditions consisting of planning, acquiring media assets and producing a media product.			

Unit code	Unit title	Assessment			
		Outcome 1	Outcome 2	Outcome 3	Outcome 4
HW4Y 45	Digital Media: Moving Images				
HW4W 45	Digital Media: Audio				
H1T1 11	Mobile Technology Systems	Short answer questions under closed-book, supervised conditions.	Practical tasks recorded on an activity log. Closed-book, supervised conditions.	Short report under closed-book, supervised conditions.	
H2P7 11	Mobile Technology: Device Connectivity	Short answer questions under closed-book, supervised conditions.	Outcomes 2 & 3: Practical project-based activity under open-book, supervised conditions.		
H2P2 11	Mobile Technology and Personal Computer Applications	Multiple-choice questions under closed-book, supervised conditions, lasting no more than 45mins.	Practical tasks recorded on an activity log. Open-book, supervised conditions.	Production of a digital portfolio under open-book, supervised conditions.	
H1T2 11	Mobile Technology: Web Page Creation	Multiple-choice questions under closed-book, supervised conditions.	Practical task involving production of media for a webpage under open-book conditions.	Practical task involving creation of a webpage under open-book conditions.	

Unit code	Unit title	Assessment			
		Outcome 1	Outcome 2	Outcome 3	Outcome 4
H2P5 11	Programming for Mobile Devices	Produce a design document for an application. Open-book conditions.	Practical task to create an application. Open-book conditions.	Test the application, recording the results on a test log. Open-book.	
F1KF 11	Computing: Install and Maintain Computer Hardware	Multiple-choice questions under closed-book, supervised conditions, lasting no more than 45mins.	Outcomes 2 & 3: Practical tasks under open-book, supervised conditions. Recorded on assessor checklists.		
F1KP 11	Computing: Install and Maintain Computer Software	Multiple-choice questions under closed-book, supervised conditions, lasting no more than 45mins	Outcomes 2 & 3: Practical tasks under open-book, supervised conditions. Recorded on activity logs and assessor checklists.		
F1KH 11	Computing: Computer Networking Fundamentals	Multiple-choice questions under closed-book, supervised conditions, lasting no more than 45mins	Outcomes 2 & 3: Practical tasks under open-book, controlled, supervised conditions. Recorded on activity logs and assessor checklists.		
D36N 11	Enterprise Activity	Plan and undertake an enterprise activity. Evidence can be in the form of personal interviews for all 4 Outcomes. Outcome 1: Devise enterprise activity. Outcome 2 & 3: Take a leading role in analysis, planning and implementation of activity. Outcome 4: Self-evaluation of contribution to activity.			

Unit code	Unit title	Assessment			
		Outcome 1	Outcome 2	Outcome 3	Outcome 4
H613 45	Computing: Website Design Fundamentals	Evaluation of web page design, recorded on pro-forma. Supervised conditions.	Practical task involving creation of webpages under supervised conditions.	Test and evaluate created web pages. Recorded on assessor checklist and evaluation form. Supervised conditions.	
H60D 45	Computing: Weblogs	Knowledge & understanding for Outcomes 1 to 3 assessed by means of a single test with 18 restricted response questions.	Outcome 1 - Practical task: Locate and review blogs.	Outcome 2 - Practical task: Create a blog and update it.	Outcome 3 – Practical task: Track blogs.
H223 75	Software Design and Development	Assessment will consist of a practical assignment under open-book, supervised conditions and a closed-book, supervised question paper.			
H226 75	Information System Design and Development	Assessment will consist of a practical assignment under open-book, supervised conditions and a closed-book, supervised question paper.			

6 Guidance on approaches to delivery and assessment

The award may be delivered full-time or part-time.

To allow centres as much freedom of choice in choosing from many optional Units there is no defined sequence of delivery, although Section 6.1 will illustrate an example of how the Units could be sequenced.

Assessment in the NC in Computing with Digital Media at SCQF level 5 will cover a variety of knowledge and practical skills as well as more academic skills of planning and evaluating. These together with the Core Skills mean that a large number of different methods are employed to ensure that learners 'can do what they are supposed to do' and 'know what they are supposed to know'.

A large proportion of Units take a 'project' approach using the product of a previous assessment as the foundation of the next and the purpose is to give learners a true reflection of how items being studied integrate and relate to industrial practice. Where this is practical, a holistic approach is encouraged to be taken by centres in assessing across a number of Outcomes within Units or across a number of Units.

The benefit of 'cross-assessment' is the achievement of several Outcomes with just one assessment instrument.

It may be possible to combine the delivery of Units in such a way as to create a thematic delivery of the component Units. The ways in which Units may be integrated is left to centres but thematic delivery, as opposed to discrete Unit delivery, may reduce assessment and improve coherence of content. The normal rules of re-assessment apply to this award. Candidates are normally permitted one re-assessment, or, in exceptional circumstances, two re-assessments at the discretion of the centre.

6.1 Sequencing/integration of Units

The structure of this award provides centres with a high degree of flexibility in its delivery, while retaining a basic core which will ensure that all successful learners develop knowledge and competences relevant to the various progression routes available to them.

This Group Award provides a progression from basic skills in computing and IT, such as might be possessed by a school leaver or an adult returner, towards a level of knowledge and understanding and skills that would prepare the learner for further study in computing and related subjects. The availability of a range of optional Units at SCQF levels 4, 5 and 6 provides learners with the opportunity to specialise in selected subjects such as computer networking, software development, web design, application development, mobile technology, interactive media or computer games. The optional section includes the Units which make up a number of National Progression Awards in various computing subjects, such as the NPA in Computer Games Development at SCQF level 5 or the NPA in Computer Networks and Systems at SCQF level 5.

Almost all Units in the award are largely practical in nature. Within the structure of each Unit, the underpinning knowledge and understanding is drawn together in a single Outcome, while the other two or more Outcomes in the Unit require performance or product evidence, putting the focus on learner activity.

This Group Award can be offered in the following modes:

- ◆ Full-time; full-time fast-track; part-time (day or evening); distance or open learning
- ◆ A combination of modes such as part-time study with some open-learning provision

Centres can manage the order of delivery as appropriate to suit local requirements of staffing and timetabling but below is an exemplar delivery schedule. It is based on 2-semester delivery (2 × 18 weeks).

Semester 1

Mandatory Units:

- ◆ Computing: Computer Hardware and Systems
- ◆ Computing: Digital Media Elements for Applications
- ◆ Computing: Applications Development
- ◆ Information Literacy

Optional Units:

- ◆ Computing: Academic Skills (SCQF level 5)
- ◆ Communications (SCQF level 5)

Semester 2

Mandatory Units:

- ◆ Network Literacy
- ◆ Social Media Literacy
- ◆ Computing: Project

Optional Units:

- ◆ Numeracy (SCQF level 5)
- ◆ Preparing to Work (SCQF level 5)

Example delivery schedule with a technology support/networking focus, which includes the NPA in Networks and Systems at SCQF level 5.

Semester 1

Mandatory Units:

- ◆ Computing: Computer Hardware and Systems
- ◆ Computing: Digital Media Elements for Applications
- ◆ Computing: Applications Development
- ◆ Information Literacy

Optional Units:

- ◆ Computing: Install and Maintain Computer Hardware
- ◆ Computing: Install and Maintain Computer Software

Semester 2

Mandatory Units:

- ◆ Network Literacy
- ◆ Social Media Literacy
- ◆ Computing: Project

Optional Units:

- ◆ Computing: Computer Networking Fundamentals
- ◆ Computing: Academic Skills (SCQF level 5)

Example delivery schedule with web design/interactive media focus, which includes the NPA in Web Design Fundamentals at SCQF level 5.

Semester 1

Mandatory Units:

- ◆ Computing: Computer Hardware and Systems
- ◆ Computing: Digital Media Elements for Applications
- ◆ Computing: Applications Development
- ◆ Information Literacy

Optional Units:

- ◆ Computing: Website Graphics
- ◆ Computing: Website Design and Development

Semester 2

Mandatory Units:

- ◆ Network Literacy
- ◆ Social Media Literacy
- ◆ Computing: Project

Optional Units:

- ◆ Computing: Interactive Multimedia for Website Development
- ◆ Mobile Technology: Web Page Creation

Opportunities may exist for the integration of assessment for some Units.

6.2 Recognition of Prior Learning

SQA recognises that learners gain knowledge and skills acquired through formal, non-formal and informal learning contexts.

In some instances, a full Group Award may be achieved through the recognition of prior learning. However, it is unlikely that a learner would have the appropriate prior learning and experience to meet all the requirements of a full Group Award.

The recognition of prior learning may **not** be used as a method of assessing in the following types of Units and assessments:

- ◆ HN Graded Units
- ◆ Course and/or external assessments
- ◆ Other integrative assessment Units (which may or not be graded)
- ◆ Certain types of assessment instruments where the standard may be compromised by not using the same assessment method outlined in the Unit
- ◆ Where there is an existing requirement for a licence to practice
- ◆ Where there are specific health and safety requirements
- ◆ Where there are regulatory, professional or other statutory requirements
- ◆ Where otherwise specified in an Assessment Strategy

More information and guidance on the *Recognition of Prior Learning* (RPL) may be found on our website www.sqa.org.uk.

The following sub-sections outline how existing SQA Unit(s) may contribute to this Group Award. Additionally, they also outline how this Group Award may be recognised for professional and articulation purposes.

6.2.1 Articulation and/or progression

On successful completion of this SCQF Level 5 Group Award, learners may be able to progress onto the following NC programmes:

- ◆ NC in Computing with Digital Media at SCQF level 6
- ◆ NC in Computing: Technical Support at SCQF Level 6
- ◆ NC in Computer Games: Creative Development at SCQF level 6
- ◆ NC in Computer Games: Software Development at SCQF level 6

Learners may also progress directly onto the following HN programmes; however this would be at the discretion of the centre.

- ◆ HNC Computing
- ◆ HNC/HND Computer Games Development
- ◆ HND Computing: Networking
- ◆ HND Computing: Technical Support
- ◆ HND Computing: Software Development
- ◆ HNC/HND Information Technology
- ◆ HNC/HND Interactive Media
- ◆ HNC/HND 3D Computer Animation

6.2.2 Professional Recognition

Not applicable.

6.2.3 Transitional Arrangements

The NC in Computing with Digital Media at SCQF level 5 is a revision of G8JK 45 NC in Digital Media Computing at SCQF level 5. To achieve the revised award, five new mandatory Units should be completed. Centres must ensure that the learner has at least four optional Units from the revised framework or have achieved Units from G8JK 45 that give full credit transfer to Units in the revised framework.

The following table compares the Units from the old and new frameworks.

Shaded grey indicates the Unit is in both frameworks.
Units marked in bold in the right hand column are revised Units.
Units shaded yellow are new Units created for the revised award.

Mandatory Units — G8JK 45		Mandatory Units — Revised Award	
F1KR 11	Computing: Computer Hardware and Systems	F1KR 11	Computing: Computer Hardware and Systems
F1KS 11	Computing: Digital Media Elements for Applications	F1KS 11	Computing: Digital Media Elements for Applications
F1FD 11	PC Passport: Internet and On-line Communications	H6S9 45	Computing: Applications Development
F1K8 11	Computing: Office and Personal Productivity Applications	H6S7 45	Computing: Project
45	Communication	H7E9 45	Information Literacy
F3GF 10	Numeracy	H7EA 45	Network Literacy
		H7EB 45	Social Media Literacy
Optional Units — G8JK 45		Optional Units — Revised Award	
E9XD 10	Core Mathematics 2	F3GB 10	Communication
D11T 10	Core Mathematics 3	F3GF 10	Numeracy
D11V 11	Core Mathematics 4	F3GB 11	Communication
D11W 11	Mathematics: Analysis/Algebra 1	F3GF 11	Numeracy
ED51 12	Mathematics: Analysis/Algebra 2	FN84 11	Mathematics for Interactive Computing
D321 11	Mathematics 1	H60C 45	Computing: Academic Skills
D322 11	Mathematics 2	H60C 46	Computing: Academic Skills
D323 11	Mathematics 3	F57F 11	Preparing to Work
F915 11	Computer Games: Design	HX9V 45	Computer Games: Design
F916 11	Computer Games: Media Assets	HX9W 45	Computer Games: Media Assets
F917 11	Computer Games: Development	HX9X 45	Computer Games: Development
F180 11	Computing: Interactive Multimedia for Website Design	HW51 45	Computing: Interactive Multimedia
F181 11	Computing: Web Design Fundamentals	H614 45	Computing: Website Graphics
F182 11	Computing: Website Design and Development	HW52 45	Computing: Website Design and Development
F1KW 11	Digital Media: Still Images Editing	HW4X 45	Digital Media: Still Images
F1KV 11	Digital Media: Video Editing	HW4Y 45	Digital Media: Moving Images
F1KT 11	Digital Media: Audio Editing	HW4W 45	Digital Media: Audio
D36N 10	Enterprise Activity	H1T1 11	Mobile Technology Systems
F1JY 10	Digital Media: Still Images Acquisition	H2P7 11	Mobile Technology: Device Connectivity
F1JW 10	Digital Media: Video Acquisition	H2P2 11	Mobile Technology and Personal Computer Applications
F1JT 10	Digital Media: Audio Acquisition	H1T2 11	Mobile Technology: Web Page Creation
F1K4 10	Computer Games: Digital Gaming Design	H2P5 11	Programming for Mobile Devices

Optional Units — G8JK 45		Optional Units — Revised Award	
F1KF 11	Computing: Install and Maintain Computer Hardware	F1KF 11	Computing: Install and Maintain Computer Hardware
F1KP 11	Computing: Install and Maintain Computer Software	F1KP 11	Computing: Install and Maintain Computer Software
F1KH 11	Computing: Computer Networking Fundamentals	F1KH 11	Computing: Computer Networking Fundamentals
D36N 11	Enterprise Activity	D36N 11	Enterprise Activity
F1KJ 11	Computing: Web Page Creation →	H613 45	Computing: Website Design Fundamentals
DN81 11	Weblogs →	H60D 45	Computing: Weblogs
F1GP 10	PC Passport: Introduction to IT Systems	H223 75	Software Design and Development
DW7J 11	Social Software	H226 75	Information System Design and Development
F1P3 11	Information Literacy Skills		
F915 10	Computer Games: Design		
F916 10	Computer Games: Media Assets		
F917 10	Computer Games: Development		
F1R2 11	Computer Games: Digital Games Design		
F1KD 11	Computing: Troubleshoot and Secure IT Systems		
F1K0 10	Computing: Programming in a High-level Language – Fundamentals		
D970 10	Computer Control Systems		
F1F8 10	PC Passport: Introduction to IT Software and Presenting Information		
H1F6 10	Internet Safety		
DW7H 10	Basic Information and Communication Technology (ICT) Skills		
DV4J 10	Business Information and ICT		
F1KB 11	Computing: Animation Fundamentals		
DF2Y 11	Software Development (Intermediate 2)		
F3GD 10	Problem Solving		
D6RC 11	Introduction to Computer Animation		
F1FC 11	PC Passport: IT Software Word Processing and Presenting Information		
F1FB 11	PC Passport: IT Software Spreadsheet and Database		
F1FA 11	PC Passport: IT Systems		
F3GD 11	Problem Solving		
F1KY 09	Digital Communication Methods		
F1L1 09	Digital Numeracy		
F1L2 09	Digital Computing		
DV91 11	Creative Thinking and Goal Setting		
D0F7 11	Multimedia Computing: Introduction to Digital Photography		
DF2Y 12	Software Development (Higher)		
F1FE 12	PC Passport: Working with IT Software: Word Processing and Presenting Information		
F1FJ 12	PC Passport: Working with IT Software Spreadsheet and Database		
F1FH 12	PC Passport: Working with IT Security for Users		
F1FG 12	PC Passport: Working with Artwork and Imaging		
F3T2 12	Computing: Authoring a Website		
F3T5 12	Digital Media: Still Images		
F1FF 12	PC Passport: Working with Internet and On-line Communications		

6.2.4 Credit transfer

Learners may receive credit for any of the Units listed in the Transitional Arrangements which have been revised, but have retained the same Unit Code. The following old Units may receive credit transfer to the new Units listed below.

Old Unit Code	Old Unit title	New Unit Code	New Unit title
DN81 11	Web Logs	H60D 45	Computing: Weblogs
F1KJ 11	Computing: Web Page Creation	H613 45	Computing: Website Design Fundamentals
F181 11	Computing: Web Design Fundamentals	H614 45	Computing: Website Graphics
F915 11	Computer Games: Design	HX9V 45	Computer Games: Design
F916 11	Computer Games: Media Assets	HX9W 45	Computer Games: Media Assets
F917 11	Computer Games: Development	HX9X 45	Computer Games: Development
F180 11	Computing: Interactive Multimedia for Website Design	HW51 45	Computing: Interactive Multimedia
F182 11	Computing: Website Design and Development	HW52 45	Computing: Website Design and Development
F1KW 11	Digital Media: Still Images Editing	HW4X 45	Digital Media: Still Images
F1KV 11	Digital Media: Video Editing	HW4Y 45	Digital Media: Moving Images
F1KT 11	Digital Media: Audio Editing	HW4W 45	Digital Media: Audio

6.3 Opportunities for e-assessment

The design for some Units in the award requires that evidence of knowledge and understanding of key concepts and processes is obtained through a written test. This assessment process is therefore amenable to online assessment (or e-assessment) and centres are encouraged to adopt this approach wherever possible. In cases where performance and product evidence is required, the usual checklists and pro forma could be substituted by electronic versions with a candidate's product(s) and progress reports stored in the form of an e-portfolio. As this technology develops centres are encouraged to adopt any such arrangements that SQA may put in place for securing and authenticating this evidence.

6.4 Support materials

A list of existing ASPs is available to view on SQA's website.

6.5 Resource requirements

Centres offering this qualification will be required to provide access to a range of computing devices, computer hardware, computer software, the internet and relevant online resources.

Where network restrictions are in place preventing access to specific relevant online resources it is acceptable for learners to access those resources out with the centre. Any evidence that may be generated out with the centre must be authenticated as stated on the relevant Unit specifications

7 General information for centres

Equality and inclusion

The Unit specifications making up this Group Award have been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners will 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.

Internal and external verification

All instruments of assessment used within this/these qualification(s) should be internally verified, using the appropriate policy within the centre and the guidelines set by SQA.

External verification will be carried out by SQA to ensure that internal assessment is within the national guidelines for these qualifications.

Further information on internal and external verification can be found in *SQA's Guide to Assessment* (www.sqa.org.uk/GuideToAssessment).

8 Glossary of terms

CfE: Curriculum for Excellence

Embedded Core Skills: is where the assessment evidence for the Unit also includes full evidence for complete Core Skill or Core Skill components. A learner successfully completing the Unit will be automatically certificated for the Core Skill. (This depends on the Unit having been successfully audited and validated for Core Skills certification.)

E-portfolio: E-portfolios offer benefits for learners, centres and SQA. They provide an electronic environment where centres can introduce more creative approaches to assessment and where learners can store and organise their learning and assessment evidence, in a range of media formats. For centres, this also means no longer having to print, copy and store paper-based portfolios. For SQA, e-portfolios provide a secure and flexible way to access assessment evidence and internal verification materials.

Fast track: is where a qualification is delivered over a shorter than normal period of time, eg from January - June compared to August - June. The learner will likely be timetabled for more classes per week and may be offered more e-learning.

Finish date: The end of a Group Award's lapsing period is known as the finish date. After the finish date, the Group Award will no longer be live and the following applies:

- ◆ candidates may not be entered for the Group Award
- ◆ the Group Award will continue to exist only as an archive record on the Awards Processing System (APS)

Lapsing date: When a Group Award is entered into its lapsing period, the following will apply:

- ◆ the Group Award will be deleted from the relevant catalogue
- ◆ the Group Award specification will remain until the qualification reaches its finish date at which point it will be removed from SQA's website and archived
- ◆ no new centres may be approved to offer the Group Award
- ◆ centres should only enter candidates whom they expect to complete the Group Award during the defined lapsing period

MA: Modern Apprenticeship

SQA credit value: The credit value allocated to a Unit gives an indication of the contribution the Unit makes to an SQA Group Award. An SQA credit value of 1 given to an SQA Unit represents approximately 40 hours of programmed learning, teaching and assessment.

SCQF: The Scottish Credit and Qualification Framework (SCQF) provides the national common framework for describing all relevant programmes of learning and qualifications in Scotland. SCQF terminology is used throughout this guide to refer to credits and levels. For further information on the SCQF visit the SCQF website at www.scqf.org.uk.

SCQF credit points: SCQF credit points provide a means of describing and comparing the amount of learning that is required to complete a qualification at a given level of the Framework. One National Unit credit is equivalent to 6 SCQF credit points. One National Unit credit at Advanced Higher and one Higher National Unit credit (irrespective of level) is equivalent to 8 SCQF credit points.

SCQF levels: The level a qualification is assigned within the framework is an indication of how hard it is to achieve. The SCQF covers 12 levels of learning. HNCs and HNDs are available at SCQF levels 7 and 8 respectively. Higher National Units will normally be at levels 6–9 and Graded Units will be at level 7 and 8. National Qualification Group Awards are available at SCQF levels 2–6 and will normally be made up of National Units which are available from SCQF levels 2–7.

Subject Unit: Subject Units contain vocational/subject content and are designed to test a specific set of knowledge and skills.

Signposted Core Skills: refers to opportunities to develop Core Skills arise in learning and teaching but are not automatically certificated.

Vendor qualifications: certifications offered by commercial technology suppliers.

History of changes

It is anticipated that changes will take place during the life of the qualification and this section will record these changes. This document is the latest version and incorporates the changes summarised below. Centres are advised to check SQA's APS Navigator to confirm they are using the up to date qualification structure.

NOTE: Where a Unit is revised by another Unit:

- ◆ No new centres may be approved to offer the Unit which has been revised.
- ◆ Centres should only enter candidates for the Unit which has been revised where they are expected to complete the Unit before its finish date.

Version Number	Description	Date
8	<p>Revision of Unit: Computer Games: Design (F915 11) has been revised by Computer Games: Design (HX9V 45) and will finish on 31/07/2020</p> <p>Revision of Unit: Computer Games: Media Assets (F916 11) has been revised by Computer Games: Media Assets (HX9W 45) and will finish on 31/07/2020</p> <p>Revision of Unit: Computer Games: Development (F917 11) has been revised by Computer Games: Development (HX9X 45) and will finish on 31/07/2020</p>	May 2018
7	<p>Revision of Unit: Computing: Interactive Multimedia for Website Development (F180 11) has been revised by Computing: Interactive Multimedia (HW51 45) and will finish on 31/07/2020.</p> <p>Revision of Unit: Computing: Website Design and Development (F182 11) has been revised by Computing: Website Design and Development (HW52 45) and will finish on 31/07/2020.</p> <p>Revision of Unit: Digital Media: Audio Editing (F1KT 11) has been revised by Digital Media: Audio (HW4W 45) and will finish on 31/07/2020.</p> <p>Revision of Unit: Digital Media: Still Images Editing (F1KW 11) has been revised by Digital Media: Still Images (HW4X 45) and will finish on 31/07/2020.</p> <p>Revision of Unit: Digital Media: Video Editing (F1KV 11) has been revised by Digital Media: Moving Images (HW4Y 45) and will finish on 31/07/2020.</p>	December 2017
6	HA6J 45 Web Apps: Presentations, HA6L 45 Web Apps: Spreadsheets; HA6M 45 Web Apps: Word Processing added into GJ7T 45 NC Computing with Digital Media Level 5 as optional units.	October 2016
5	FN8R 11 Games Programming has been added into GJ7T 45 NC Computing with Digital Media Level 5 as an optional unit.	May 2016
4	H23W 74 Literacy has been added as an alternative to F3GB 10 Communication. H225 74 Numeracy has been added as an alternative to F3GF 10 Numeracy.	February 2016

	H23W 75 Literacy has been added as an alternative to F3GB 11 Communication. H225 75 Numeracy has been added as an alternative to F3GF 11 Numeracy.	
3	H9E2 45 Data Security, H9J0 45 Digital Forensics and H9HY 45 Ethical Hacking from NPA Cyber Security at SCQF level 5 have been added to GJ7T 45 NC Computing with Digital Media as optional units	August 2015
2	PC Passport Units at SCQF level 5 added to options.	September 2014

Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of this qualification.

9 General information for learners

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

The National Certificate (NC) in Computing with Digital Media Group at SCQF level 5 is designed to develop your skills and knowledge in a range of computing subject areas in preparation for either progression to a higher level course, or for employment.

To achieve the Group Award you will need to pass a minimum of 12 SQA Unit credits (72 SCQF credit points), of which 8 SQA Unit credits (48 SCCQF credit points) are at SCQF level 5 in the mandatory section and the remaining 4 SQA Unit credits (24 SCQF credit points) are from the optional section. The mandatory section contains 7 Units that you must pass which are all at SCQF level 5.

The mandatory Units are designed to give you fundamental knowledge and skills in:

- ◆ Computer hardware and systems
- ◆ Digital media production and editing
- ◆ Software/application development
- ◆ Online skills including networking and sharing information
- ◆ Production of a computing project

This NC in Computing with Digital Media at SCQF level 5 is designed for a range of learners including:

- ◆ School leavers who wish to embark on a course which will lead to either higher education or employment;
- ◆ FE learners who have already completed the award at SCQF level 4 and who want to continue to develop their knowledge and skills;
- ◆ Employed or unemployed adults wishing to re-train for a career in computing.

It is recommended that you have achieved one or more of the following awards/qualifications for entry to this NC Group Award:

- ◆ NC in Digital Media Computing at SCQF level 4
- ◆ NC in Computing with Digital Media at SCQF level 4
- ◆ National 4 Computing Science
- ◆ National 5 Computing Science
- ◆ Relevant Computing related NPA at SCQF level 4 or 5

The Units at SCQF level 5 are split between theory and practical and a range of assessment approaches may include:

- ◆ Candidate logbooks
- ◆ Evidence of practical work
- ◆ Multiple choice questions
- ◆ Short response questions
- ◆ Report writing
- ◆ E-portfolios
- ◆ Projects

In addition to the subject-specific skills mentioned above, the Group Award includes development of a range of Core Skills including *Communication, Numeracy, Problem Solving, Information and Communication Technology and Working with Others*.