XSQA

Arrangements for:

National Certificate in

Digital Media Computing at

SCQF level 6

Group Award Code: G9GK 46

Validation date: May 2008

Date of original publication: October 2014

Version: 9 (May 2018)

Acknowledgement

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.

Version number	Description	Date
9	**Revision of Unit:** Computer Games: Design (F915 12) has been revised by Computer Games: Design (HV9V 46) and will finish on 31/07/2020 **Revision of Unit:** Computer Games: Design (F915 11) has been revised by Computer Games: Design (HV9V 45) and will finish on 31/07/2020 **Revision of Unit:** Computer Games: Media Assets (F916 11) has been revised by Computer Games: Media Assets (HV9W 45) and will finish on 31/07/2020 **Revision of Unit:** Computer Games: Media Assets (F916 12) has been revised by Computer Games: Media Assets (HV9W 46) and will finish on 31/07/2020 **Revision of Unit:** Computer Games: Development (F917 11) has been revised by Computer Games: Development (HV9X 45) and will finish on 31/07/2020 **Revision of Unit:** Computer Games: Development (F917 12) has been revised by Computer Games: Development (HV9X 46) and will finish on 31/07/2020	May 2018
8	**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. **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. **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. **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. **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.	December 2017
7	**Revision of Unit**: F1KJ 11 Computing: Web Page Creation *has been revised by* H613 45 Computing: Web Design Fundamentals *and will finish on* 31/07/2016. F181 11 Computing: Web Design Fundamentals *has been revised by* H614 45 Computing: Website Graphics *and will finish on* 31/07/2016. DN81 11 Web Logs *has been revised by* H60D 45 Web Logs *and will finish on* 31/07/2016.	November 2014
6	FR27 11 Volunteering Experience added to optional Units.	October 2014

5	DF2X 11 Computer Systems and DF32 11 Multimedia Technology added to restricted optional Units at SCQF level 5	June 2014
4	**Revision of Unit**: D321 11 Mathematics 1 *has been revised by* H22F 75 Mathematics: Expressions and Formulae *and will finish on* 31/07/2016. D322 11 Mathematics 2 *has been revised by* H22J 75 Mathematics: Applications *and will finish on* 31/07/2016. D323 11 Mathematics 3 *has been revised by* H22G 75 Mathematics: Relationships *and will finish on* 31/07/2016. 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.	May 2014
3	Network Fundamentals (H2N5 12),Security Fundamentals (H2N6 12) and Server Administration Fundamentals (H2N7 12) added to the optional section of the framework	April 2013
2	Section 5.1 Framework Table 1 (mandatory Units) — Numeracy Core Skill Unit F3GF 11, SCQF level should be **5** not 4. Footer also amended, ie code amended — typographical errors.	May 2011

Contents

1   Introduction

This is the Arrangements Document for the new Group Award in the National Certificate in Digital Media Computing, at SCQF level 6, which was validated in May 2008. 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 Digital Media Computing is a Group Award that conforms to the specification for such awards published by SQA in December 2005. It replaces a Scottish Group Award in Computing and Information Technology, that was only available at Intermediate 2 level (SCQF level 5), with an award at each of SCQF levels 4 and 5 (developed previously) and now at SCQF level 6. This provides a progression for candidates towards further study or to employment.

This award is at a number of levels with this being the highest, ie SCQF level 6, and each of the National Certificate Digital Media Computing awards have the same size (ie 12 credits) and structure: Each has 6 mandatory credits, covering a broad range of computer hardware, software and applications, including two Core Skills credits (*Communication* and *Numeracy*). There are no Graded Units in the award. The award framework provides a wide choice of optional Units to make up the requirement of 12 credits for the award, including:

♦   Computer hardware
♦   Computer software
♦   Computer troubleshooting
♦   Computer networks
♦   Network security
♦   Office productivity applications
♦   The internet and the world-wide web
♦   Website authoring
♦   and the use of digital images, sound and video

2   Rationale for the development of the Group Award

The rationale for developing this National Certificate Digital Media Computing award is to address shortcomings in the current SQA provision at SCQF levels 6, and to provide colleges with a progressive set of awards more in tune with modern applications of computing and information technology both in the workplace and in social contexts.

Establishing the need for the qualifications

In the early part of 2006 a Qualifications Development Team (QDT) was established to consider the extent and nature of provision of awards in computing and related topics at SCQF levels 2–6. The work of the QDT was informed by a range of considerations. These included:

- the current arrangements in Scotland's Colleges for non-advanced courses in computing and related topics
- the future requirements of centres for courses in these areas, as expressed by heads of centre and course managers at both FE and HN level
- the strategic plans of the computing and IT industry sector skills council, e-skills UK
- the National Occupational Standards of e-skills and Skillset; and parallel developments in PC Passport and NPAs in computing topics

An Occupational Sector Qualifications Profile was also completed to establish current SQA provision, key competitor qualifications and consider developments and trends within the sector.

This work established that very few centres made use of the existing Scottish Group Award (SGA) in Computing and IT (Intermediate 2) to meet the needs of their learners. Instead they created programmes of study from existing Units in the SQA catalogue and Units or courses from other qualification providers. This provided centres with the flexibility they required to offer programmes that were at a level appropriate to their client groups and provided progression to a range of qualifications across business administration, computing and multimedia. However, centres were not wholly satisfied with their provision and used consultation events organised by the QDT to signal their requirement for qualifications that satisfied the following criteria:

- Qualifications that are credit-rated and meaningful
- Single qualification at each level to serve multiple progression routes
- All candidates should experience a broad-based mandatory core covering systems and applications
- All candidates should improve their Core Skills of communication and numeracy
- The framework should provide a range of optional Units, possibly organised in 'clusters' for future NPA awards
- Courses that let candidates progress at their own pace (over 1 or 2 years)
- Courses that are flexible enough to let candidates change their mind about next course
- Content that develops the skills and knowledge to meet the needs of the labour market
- Content that reflects modern computing applications and excites the candidates' interest

Other findings of the QDT established that employers are concerned that entrants to the labour market with these qualifications should be people who can work in teams and communicate well; apply their knowledge to new situations and have sound competence as IT Users. The sector skills council for the computing and IT industry (e-skills UK) publishes regular surveys showing trends in the industry and has also established the set of National Occupational Skills (NOS) standards for IT users. The content and coverage of the NOS reflects modern usage of IT in the workplace and confirms that the SQA catalogue requires expansion and updating. This was confirmed in a report commissioned by SQA and published in 2006.

Through its commitment to the principles of A Curriculum for Excellence the Scottish Executive has signaled its aspirations for all children and for every young person to become successful learners, confident individuals, responsible citizens and effective contributors to society and at work. By providing structure, support and direction to learning, the curriculum of these proposed awards, along with associated NPAs, should enable learners to develop these four capacities.

Furthermore, the Scottish Executive's strategy for enterprise in education aims to help Scotland's young people develop self-confidence, self-reliance and ambition to achieve their goals — in work and in life. In these awards, learners will be provided with real-world contexts to develop and practice many of the skills and qualities that will be indispensable to them in adult life and the world of work. They provide opportunities for enterprising attitudes to be developed.

A recent analysis of the Scottish IT job market (Garner/e-skills UK report on IT skills in Scotland, 2005) concluded that the IT industry in Scotland would have on-going demand for technical skills in system integration, networking, web design, security and IT architecture to support both custom development and package integration. It also identified a need for IT professionals to have broader business skills and an improved understanding of the sector they are working in. Companies were expecting that their IT users should increase their skills in IT productivity tools (ie office applications) to advanced levels. Importantly, IT users should develop the capacity to exploit IT rather than simply be users. Skills in accessing and analysing information need to be improved. These awards provide the opportunity for IT User skills to be developed, along with skills in accessing information and communicating it effectively using web technologies and networking.

Establishing the level(s) of the qualification

The work of the QDT in consultation with centres established that the main client group for Group Awards in computing and IT in centres was young persons who had recently left school. A considerable proportion of these candidates had low levels of formal attainment at school. Another large group comprised mature adults seeking to change career direction or re-enter education. The characteristics of these groups are markedly different, but they shared the same goal of progressing to further study in computing or related IT areas. Centres characterised these candidates as operating largely at SCQF levels 4 and 5, with some progressing as far as SCQF level 6 in preparation for HN level study (SCQF level 7).

Very few centres offer provision for awards of this size (12 credits) at SCQF levels 4–6 on a part-time or flexible basis. Almost all candidates for existing programmes are full-time. However, PC Passport and equivalent qualifications (3–4 credits) are offered as part-time or flexible provision.

The QDT consulted with two centres who provided for candidates studying computing and IT Units at SCQF level 3 and below. The indication from these centres was that their was no requirement for Group Awards in computing and IT at these levels. They did, however, express a strong requirement for Units to be updated at the SCQF levels 3 and 4 and for the provision at these levels to be expanded.

A Group Award that meets the requirements

Structure and content

This award is structured to have 6 Credits in the mandatory core so that the maximum flexibility allowed by the award rules is afforded to centres in designing their programmes of study. This flexibility is further enhanced by providing an extensive range of optional Units in:

♦ Computer hardware
♦ Computer software
♦ Computer troubleshooting
♦ Computer networks
♦ Network security
♦ Office productivity applications
♦ The internet and the world-wide web
♦ Website authoring
♦ and the use of digital images, sound and video

Consultation with centres on this proposed structure confirmed that this would meet the needs of colleges for flexibility.

This award has a mandatory core encompassing:

♦ Computer systems (1 credit)
♦ Office and personal productivity applications (1 credit)
♦ Digital media elements for applications (1 credit)
♦ and PC Passport: Internet and on-line communication (1 credit)

Again, consultation with centres confirms that this structure meets their needs for a broad-based mandatory core.

The award, at each level, contains two Core Skills in the mandatory core — *Communication* and *Numeracy*. These have been set at one level below the award level in recognition of the similar arrangement for the HN courses into which candidates might progress. Centres are encouraged to ensure that all candidates make progress in their Core Skills beyond those held on entry to the awards, and the normal rules for crediting Units in a hierarchy will apply. This meets the requirement expressed by centres but also acknowledges that employers have made communication skills one of their essential requirements.

The award rules require that at least 6 credits are at the level of the award (total 12 credits). This provides centres and candidates with the flexibility required to meet the needs of candidates in terms of level of demand. Consultation with centres has confirmed that this aspect of the award meets their requirements. The award at each level provides a wide choice of topics for candidates to study. These topics are available at each level, meeting the requirement for progression. Most of the Units have been created or updated from previous Units within the past year and reflect modern technology usage and practice, thus meeting a requirement expressed by both centres and employers.

The wide range of optional Units provides centres and candidates with the flexibility to tailor programmes of study in line with their preferred next steps. In particular, it meets the requirements of colleges that a single qualification can be used to provide progression to further study in areas such as computing, multimedia, networking, computer games and business IT.

The inclusion of PC Passport Units within the award (both mandatory and optional) meets the needs of centres, candidates and employers to have certificated evidence that industry-recognised standards of competence are being reached.

The inclusion of optional Units that are incorporated in other NPA awards meets the requirement of centres for optional Units to be capable of 'clustering' to allow candidates to achieve additional awards.

Level of the Group Awards

The level of this National Certificate Digital Media Computing award at SCQF level 6 will meet the requirements of almost all candidates seeking to enter or progress from the National Certificate in Digital Media Computing award at level 4 and/or the National Certificate in Digital Media Computing award at level 5. The flexibility allowed in the structure of the award will provide centres with the means of meeting the needs of individual learners.

The practical nature of the component Units and their relevance to modern technology usage will help centres engage and motivate the 'difficult to teach' client groups that are often encountered at SCQF levels 4, 5 or 6 allowing them to build on their previous experiences.

The provision of awards at SCQF levels 4, 5 and 6 and Units at SCQF levels 3–6 meet the requirements of candidates for an entry-level that matches their ability and for progression at an appropriate pace to further levels of study.

The inclusion of PC Passport and other NPAs in the award structure (See Appendix 1 — National Progression Awards) will also encourage candidates who might wish to start their studies on a part-time or flexible basis. They can acquire a certificated award while building credits towards one of these Group Awards.

Overall, this award should be well suited to the following candidate groups: young persons entering after leaving school (often with low-attainment); mature adults returning to full-time study or preparing for a career change; mature adults who have previous experience of short IT courses and wish to extend their interest or individuals who are progressing for the National Certificate Digital Media Computing at either level 4 and/or level 5. There is nothing in the award structure or content that would provide artificial barriers to candidates with disabilities.

Requirements of the industry sector

The most relevant sector skills council (e-skills UK) has established standards for both IT professionals and for IT users. The NOS for IT Users are published at 3 skill levels, corresponding to NVQ/SVQ levels 1, 2 and 3. These IT User standards cover the basic use and maintenance of computer systems, use of applications software, use of the Internet and e-mail and competence in evaluating and selecting IT applications. There are 14 separate areas of competence set out in the IT Users NOS (See Appendix 2 — National Occupational Standards).

The mandatory core Units of the National Certificate awards make significant contributions towards the competences set out in these standards, although only a few single Units in the National Certificate Group Awards cover all of the knowledge and understanding, skills and techniques listed in the equivalent NOS area of competence. The Units which do are those in the PC Passport NPAs. While the NOS is of importance for candidates who take the National Certificate Group Awards, in preparing them to have the competences to use IT effectively in the workplace, these awards are not in themselves SVQs. These awards are intended to prepare candidates for progression to further levels of study and eventually into HN and degree-level study. While it is satisfying that they meet some of the requirements of the workplace as indicated in the table below, this is not the primary requirement for the awards.

The core Unit of the SVQ/NVQ (named as the ITQ by e-skills UK) is *Make Selective Use of IT*. This is the ability to determine the appropriate use of IT in a variety of settings such as home, work, school or other environments. The National Certificate awards are designed to develop this set of competences through the four core Units of the awards.

Mandatory Units	SCQF level	Equivalent NOS area of competence	Coverage
Computer Systems	6	Operate a Computer	NOS level 2
Office and Personal Productivity Software	6	Word processing software Spreadsheet software Database software	NOS level 2 NOS level 2 NOS level 2
PC Passport: Internet and Online Communications	6	Internet and intranets	NOS level 2
Digital Media Elements for Applications	6	Specialist and bespoke software	NOS level 2

Relationship to other SQA awards

This award is positioned so that candidates can easily progress to it from a level 5 award in the National Certificate in Digital Media Computing. This award at SCQL level 6 award provides a pathway of progression towards a range of HN awards in computing related areas. The set of HN awards that have influenced the design and content of the National Certificate in Digital Media Computing at SCQF level 6 are:

- ♦ HNC Computing
- ♦ HND Computing: Technical Support
- ♦ HND Computing: Software Development
- ♦ HNC Interactive Media (2nd year under development)
- ♦ HNC/D Interactive Multimedia Creation
- ♦ HNC/D Multimedia Computing: Web Development
- ♦ HND Multimedia Computing
- ♦ HNC Computing Networking
- ♦ HND Computer Networking and Internet Technology
- ♦ HNC Computer Games Development
- ♦ HNC/D Information Technology

There are existing National Qualification courses in *Computing Studies, Computing,* and *Information Systems* at SCQF levels 4–7 (Intermediate 1–Advanced Higher). The Units within these qualifications were revised within the past 2 years and have considerable popularity in Scottish secondary schools. These Units have been also used by FE presenting centres in the full-time programmes that they have devised to provide access to computing and progression towards HN. What distinguishes the Units within the National Certificate Group Award from these is that the new National Certificate award Units are focused on a practical approach to acquiring the knowledge and understanding, skills and competences.
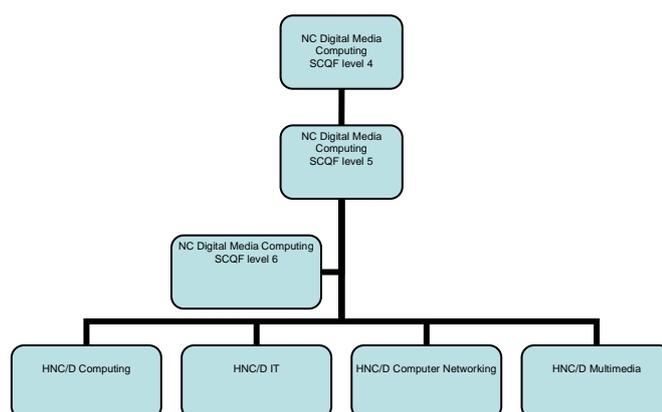

Diagram showing possible progression routes from the National Certificate course

These awards also have a close relationship to National Progression Awards in *PC Passport: Beginners, PC Passport: Intermediate, PC Passport: Advanced, Digital Literacy, Internet Technology (at SCQF level 4 and level 5)* and *Web Design Fundamentals* as the component Units of these awards are included in the National Certificate Digital Media Computing suite of award frameworks. A candidate may have the opportunity of gaining these as additional awards through careful choice of optional Units within the National Certificate Group Award (or perhaps outwith the National Certificate Group Award in full-time programmes that encompass more than 12 credits). These inter-relationships are expressed in diagrammatic form in Appendix 3 — Diagram of Awards.

There are no close equivalent SGA awards in other areas such as Business IT or Multimedia.

Level at which this award is set

The process of writing new Units was systematic and exhaustive to ensure that there was a close correspondence with the descriptive elements of the SCQF framework at level 6. Particular care was taken to allow clear progression between levels without over-extending candidates at the highest level in the framework. Units were subject to specialist editing as well as the technical editing and operational validation.

3 Aims of the Group Award

3.1 Principal aims of the Group Award

This award at SCQF level 6, along with the awards at SCQF level 4 and level 5, replaces the Scottish Group Award in Computing and IT at Intermediate 2 (SCQF level 5).

The aims of these awards are to:

♦ develop candidates' knowledge of a range of contemporary applications of computing and digital media in current use
♦ develop candidates' knowledge of a range of different software applications and their competence in selecting and using them to complete tasks
♦ develop candidates' knowledge of the intranet and the Internet and skills in acquiring and evaluating information from this source
♦ develop candidates' creativity and communication skills through knowledge of digital media creation and design processes
♦ develop candidates' Core Skills in *Information Technology, Communication, Numeracy, Problem Solving and Working with Others*
♦ provide candidates with opportunities for specialisation in areas of computing applications
♦ prepare candidates' for progression to further study in computing or related disciplines or to related employment in junior posts
♦ enhance the knowledge and competencies of candidates who already have experience gained in the workplace
♦ develop candidates' personal qualities and attributes essential for success in working life, including employability skills
♦ develop candidates' vocational skills relating to the National Occupational Standards for IT Users
♦ enable candidates to progress within the SCQF

The suite of National Certificate in Digital Media Computing awards are broad in scope so as not to place any limitations on how candidates might develop or progress to other awards.

This award will meet these aims by ensuring through a mandatory core that all candidates will develop knowledge and competence in computer systems, office and productivity applications, the Internet and the creation and use of digital media. The inclusion of discrete Units of *Communications* and *Numeracy* in the core meets the aims for these two Core Skills, while the other Core Skills of Using IT*, Problem Solving* and *Working with Others* are either embedded or signposted in most of the Units of the awards. The aim of providing scope for candidates is met through the wide range of optional Units in the framework, and the inclusion of Units from SCQF level 3 through to SCQF level 6 provides progression within the SCQF framework.

A candidate attaining a National Certificate in Digital Media Computing at SCQF level 6 award will have secured 72 SCQF points, at least 36 of which will be at level 6. This represents significant levels of achievement by the candidate.

3.2   General aims of the Group Award

The general aim of this award is to produce a robust qualification that allows a candidate to enter the vocational education and centres to provide a solid grounding to candidates. This is achieved by:

♦   producing specialist ASPs for centres
♦   to produce a flexible award that is appropriate for a variety of delivery modes
♦   to address predicted skills gaps and requirements of IT until 2012
♦   to ensure that candidates gain appropriate knowledge and understanding in all Units
♦   to build on the opportunities that a candidate may have experienced by undertaking the National Certificate in Digital Media Computing at SCQF level 4 and/or the National Certificate in Digital Media Computing at SCQF level 5.
♦   to allow a candidate to progress to a selection of different HN awards

3.3   Target groups

The rationale for developing this National Certificate Digital Media Computing award is to address shortcomings in the current SQA provision at SCQF levels 6 and to provide colleges with a progressive set of awards, along with the National Certificate Digital Media Computing at SCQF levels 4 and 5, more in tune with modern applications of computing and information technology both in the workplace and in social contexts.

The age range of candidates is from young secondary education and adult learners, in the community and FE. The flexibility allowed in the structure of the awards will provide centres with the means of meeting the needs of individual learners. The practical nature of the component Units and their relevance to modern technology usage will help centres engage and motivate the 'difficult to teach' client groups that are often encountered at SCQF levels 4 and 5. The introduction of this award will offer the opportunity of preparing a candidate better for the step to undertake an HN award.

The provision of awards at SCQF levels 4, 5 and 6 and Units at SCQF levels 3–6 meet the requirements of candidates for an entry-level that matches their ability and for progression at an appropriate pace to further levels of study.

The inclusion of PC Passport and other associated NPAs in the award structure will also encourage candidates who might wish to start their studies on a part-time or flexible basis. They can acquire a certificated award while building credits towards one of these Group Awards.

Overall, these awards should be well suited to the following candidate groups: young persons entering after leaving school (often with low-attainment); mature adults returning to full-time study or preparing for a career change; mature adults who have previous experience of short IT courses and wish to extend their interest. There is nothing in the award structure or content that would provide artificial barriers to candidates with disabilities.

3.4 Employment opportunities

The majority of candidates undertaking this award are looking to improve their skills in computing, multimedia, networking, computer games and business IT using this award as a stepping stone for progression and articulation to the next level. Many centres will use this award to address the needs of the 16–18 year olds that fall into the category of Not in Education, Employment or Training (More Chances More Choices). This cohort are being targeted by the current Scottish Government's policies.

4 Access to Group Award

Access to this qualification is at the discretion of each centre. However, candidates would normally be expected to have established levels of competence and knowledge as indicated by:

♦ National Certificate Digital Media Computing (SCQF level 5) or 3 or more NQ awards at SCQF level 5 or better
♦ Core Skills of *Communication* and *Numeracy* at SCQF level 4 or better
♦ Or equivalent qualifications or experience

5 Group Award structure

5.1 Framework

Candidates will be awarded a National Certificate in Digital Media Computing at SCQF level 6 on successful completion of a total of 12 SQA credits.

The conditions to gain the award require the candidate to have at least 6.5 SQA credits at level 6.

Table 1 (mandatory Units)

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
PC Passport: Working with Internet and On-line Communications	F1FF 12	6	6	1
Computing: Digital Media Elements for Applications	F3SW 12	6	6	1
Computing: Office and Personal Productivity Applications	F3SX 12	6	6	1
Computing: Computer Hardware and Systems	F3SY 12	6	6	1
Communication (Core Skill) Or Literacy	F3GB 11

H23W 75 | 6 | 5 | 1 |
| Numeracy (Core Skill) Or *Numeracy | F3GF 11

H225 75 | 6 | 5 | 1 |

*Refer to history of changes for revision details

The tables below show the set of optional Units from which candidates may select to make up the balance of SCQF points required for the award. A candidate may choose, as one of their options, only **1 Unit** from Table 2 (Mathematics Units). The remainder, or all of their optional Units, will be selected from Table 3 (Other Optional Units). It is necessary for a candidate to select at least **2.5 SQA credits at level 6** in order to achieve the conditions of this award from tables 2 and 3.

The conditions to gain the award require the candidate to have at least 6.5 SQA credits at level 6.

Table 2 (Mathematics Units)

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Core Mathematics 2	E9XD 10	6	4	1
Core Mathematics 3	D11T 10	6	4	1
Core Mathematics 4	D11V 11	6	5	1
Mathematics: Analysis/Algebra 1	D11W 11	6	5	1
Mathematics: Analysis/Algebra 2	ED51 12	6	6	1
*Mathematics: Expressions and Formulae	H22F 75	6	5	1
*Mathematics: Applications	H22J 75	6	5	1
*Mathematics: Relationships	H22G 75	6	5	1

*Refer to history of changes for revision details

Table 3 (other optional Units)

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Enterprise Activity	D36N 11	6	5	1
*Weblogs	H60D 45	6	5	1
Social Software	DW7J 11	6	5	1
Information Literacy Skills	F1P3 11	6	5	1
*Digital Media: Still Images	HW4X 45	6	5	1
*Digital Media: Moving Images	HW4Y 45	6	5	1
*Digital Media: Audio	HW4W 45	6	5	1
Computer Games: Digital Games Design	F1R2 11	6	5	1
Computing: Troubleshoot and Secure IT Systems	F1KD 11	6	5	1
Computing: Install and Maintain Computer Software	F1KP 11	6	5	1
Computing: Install and Maintain Computer Hardware	F1KF 11	6	5	1
*Computing: Web Design Fundamentals	H613 45	6	5	1
*Computing: Website Design and Development	HW52 45	6	5	1
*Computing: Interactive Multimedia	HW51 45	6	5	1
*Computing: Website Graphics	H614 45	6	5	1
Introduction to Computer Animation	D6RC 11	6	5	1
Computing: Animation Fundamentals	F1KB 11	6	5	1
Software Development (Intermediate 2)	DF2Y 11	6	5	1
Computing: Computer Networking Fundamentals	F1KH 11	6	5	1
PC Passport: IT Software Word Processing and Presenting Information	F1FC 11	6	5	1
PC Passport: IT Software Spreadsheet and Database	F1FB 11	6	5	1
PC Passport: IT Systems	F1FA 11	3	5	0.5
Problem Solving	F3GD 11	6	5	1
*Computer Games: Design	HV9V 45	6	5	1
Computer Games: Media Assets	F916 11	6	5	1
*Computer Games: Development	HV9W 45	6	5	1
Creative Thinking and Goal Setting	DV91 11	6	5	1
Computer Systems	DF32 11	6	5	1
Multimedia Technology	DF2X 11	6	5	1
Multimedia Computing: Introduction to Digital Photography	D0F7 11	6	5	1
Volunteering Experience	FR27 11	6	5	1
*Computer Games: Design	HV9V 46	6	6	1
Computer Games: Media Assets	F916 12	6	6	1
*Computer Games: Development	HV9W 46	6	6	1
Software Development (Higher)	DF2Y 12	6	6	1
PC Passport: Working with IT Software: Word Processing and Presenting Information	F1FE 12	6	6	1
PC Passport: Working with IT Software Spreadsheet and Database	F1FJ 12	6	6	1
PC Passport: Working with IT Security for Users	F1FH 12	3	6	0.5
PC Passport: Working with Artwork and	F1FG 12	3	6	0.5

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Imaging				
Computing: Installing and Maintaining Hardware	F3T0 12	6	6	1
Computing: Installing and Maintaining Software	F3T1 12	6	6	1
Computing: Authoring a Website	F3T2 12	6	6	1
Computing: Plan and Build a Computer Network	F3T3 12	6	6	1
Computing: Troubleshoot and Secure IT Systems	F3T4 12	6	6	1
Digital Media: Still Images	F3T5 12	6	6	1
Digital Acquisition and Editing: Video	F3T6 12	6	6	1
Digital Acquisition and Editing: Audio	F3T7 12	6	6	1
Network Fundamentals	H2N5 12	6	6	1
Security Fundamentals	H2N6 12	6	6	1
Server Administration Fundamentals	H2N7 12	6	6	1

*please refer to History of Change for unit revisions

5.2 Mapping information

The National Occupational Standards (NOS) for IT Users comprises 14 elements. Within the National Certificate in Digital Media Computing suite of awards there are a few Units that map directly to these elements. More generally, candidates will develop competences in the use of computer systems and applications software that are consistent with the tenor of the NOS elements, even if not directly mapping to them. As a result, candidates completing these awards will be well placed to demonstrate good levels of IT User skills on entering the workplace. For the small number of digital media Units in the awards, the knowledge and skills developed are also broadly in line with the appropriate national occupations standards of the creative and media industries.

5.3 Articulation, professional recognition and credit transfer

General information for candidates

The National Certificate in Digital Media Computing award at SCQF levels 6 is intended to prepare candidates for progression to further study in computing and IT subjects. It is a broadly-based award that provides a foundation in the knowledge and skills of computing and IT that will be necessary for those intending to later specialise in aspects of computing or related subjects. Candidates will become competent in selecting and using computer systems and applications to find solutions to problems, and in acquiring and evaluating information from the Internet. The inclusion of computer hardware and multimedia topics in the core of the award ensures that candidates will develop skills relevant for the modern age. The award will help ensure that candidates have skills that are currently in demand by employers by working closely to the National Occupational Standards for IT Users.

The award is made up of a set of core (mandatory) Units that all candidates will have to achieve and a wide range of optional Units to allow programmes to be tailored to meet individual requirements. The mandatory computing and IT subjects are: Computer Hardware and Systems; Office and Personal Productivity

Applications; Digital Media Elements; Internet and On-line Communications. It is also mandatory that the candidate achieves a minimum level in the Core Skills of *Communication* and *Numeracy*. These are deemed essential for progress in further study and are demanded by employers. These six Units must be passed for success in the award.

The optional part of the award offers a wide range of Units from SCQF level 5 (Intermediate 2) to SCQF level 6 (Higher). The range of topics offered includes: computer hardware and software; computer networking; web design and development; computer games; computer animation; digital media (still image, video, audio); programming and software development; business IT (word processing, spreadsheets, database, presentation). These Units all provide candidates with opportunities to develop the Core Skills of *Problem Solving* and *Working with Others*, along with transferable skills of enterprise and employability.
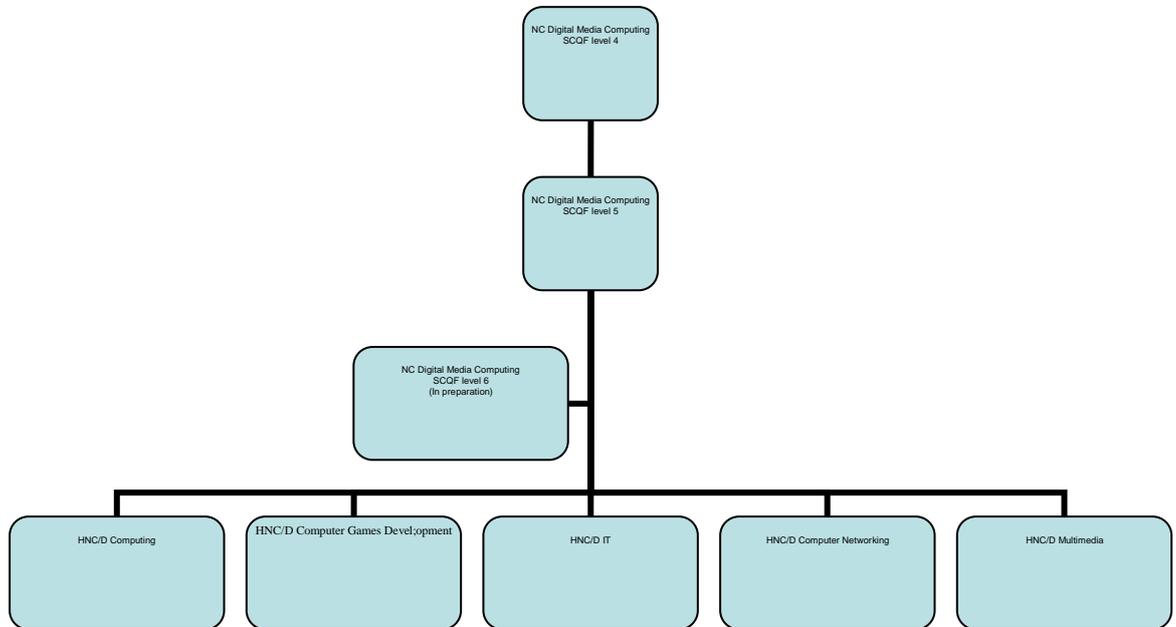
An appropriate choice of optional Units should help candidates to prepare for progression to HN level awards in Computing; Information Technology; Networking, Multimedia and Games. Each presenting centre will offer advice to candidates on what these appropriate choices are.

Candidates should expect to be given some independence in their learning, with extensive use being made of resources available through the Internet. New concepts or skills will be taught or demonstrated in the classroom, with candidates further developing their knowledge through research and analysis, and their skills through practical work. In some topics, teaching staff will provide e-learning resources so that learning can take place to suit the candidate. Working in groups or teams will be encouraged.

This award is intended to be as practical as possible, while developing underpinning knowledge and understanding. As a result the assessment activities within the award will centre around a range of practical activities, involving the use of computer hardware and software. Considerable use will be made of a specification (or brief) for which the candidate will be required to design and/or implement a computer-based solution. Assessors will use checklists and/or evaluation forms to record candidates' progress. The knowledge Outcomes of a Unit will usually be assessed through a short test conducted under closed-book conditions (typically 20 questions in 45 minutes). These tests may be administered on-line (computer-based assessment). Re-assessment of a test will be a similar (but different) test. Re-assessment of practical work will usually involve a re-working of the practical activity to meet the required standard.

Progression pathways

Progression within these awards is described in the diagram below:

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                    ┌──────────────────────────┐
                    │ NC Digital Media Computing│
                    │      SCQF level 4         │
                    └────────────┬─────────────┘
                                 │
                    ┌────────────┴─────────────┐
                    │ NC Digital Media Computing│
                    │      SCQF level 5         │
                    └────────────┬─────────────┘
                                 │
     ┌──────────────────────────┐│
     │ NC Digital Media Computing││
     │      SCQF level 6         ├┤
     │      (In preparation)     ││
     └──────────────────────────┘│
    ┌──────────┬──────────┬──────┴────┬──────────┬──────────┐
┌───────────┐┌──────────────┐┌────────┐┌──────────────┐┌────────────┐
│HNC/D       ││HNC/D Computer││HNC/D IT││HNC/D Computer││HNC/D       │
│Computing   ││Games         ││        ││Networking    ││Multimedia  │
│            ││Devel;opment  ││        ││              ││            │
└───────────┘└──────────────┘└────────┘└──────────────┘└────────────┘
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Recognition by professional bodies

There is no requirement for this award to have professional body recognition.

Credit transfer

There are no credit transfer arrangements that relate to the National Certificate Digital Media Computing suite of awards.

6   Approaches to delivery and assessment

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 candidates develop knowledge and competences relevant to the various progression routes available to them.

Content and context

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 candidate for further study in computing and related subjects. The availability of a wide range of options Units at SCQF levels 4, 5 and 6 provides candidates with the opportunity to additionally progress in selected subjects such as computer networking, software development, digital media or computer gaming.

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

Delivery and assessment

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 it is recommended that the internet mandatory Unit should be delivered early to encourage candidates to take full advantage of information available on the internet to support the remainder of their studies.

Most of the Units in this award are assessed through a blend of written and/or oral recorded evidence and performance and product evidence. Knowledge and understanding are almost always assessed under controlled, supervised conditions, using an instrument of assessment that provides opportunities for the Outcome to be fulfilled by means of sampling across the range of the content of the Outcome. Where re-assessment is required a different sample from the range of mandatory content is taken. Achievement is decided by use of a cut-off score. Where performance evidence is required, such as creating digital media elements, or building a computer network, a combination of candidate activity log and assessor checklist will be sufficient to determine achievement. In most cases, assessors will also be determining whether the activities carried out by the candidate were safe, legitimate and effective. Opportunities exist for the integration of assessment for mandatory Units that have some overlap with the core Units.

An exemplar delivery schedule is shown below (for a programme orientated towards interests in digital media). It is based on 2 semester delivery (2 x 19 weeks)

Semester 1 (delivers 7 credits. 4 at level 6, 3 at level 5)

- PC Passport: Working with the Internet and On-line Communications (SCQF level 6)
- Communication (Intermediate 2)
- Computing: Digital Media Elements for Applications (SCQF level 6)
- Digital Media: Still Images (SCQF level 6)
- Digital Media: Video (SCQF level 6)
- Computing: Interactive Multimedia for Website Development (SCQF level 5)
- Creative Thinking and Goal Setting (SCQF level 5)

Plus

- Balance of Semester 1 content will be at the discretion of the centre

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Semester 2 (delivers 7 credits. 5 at level 6, 2 at level 5)

- Computing: Computer Hardware and Systems (SCQF level 6)
- Computing: Office and Personal Productivity Applications SCQF level 6)
- Computing: Install and Maintain Computer Software (SCQF level 6)
- Computing: Authoring a Website (SCQF level 6)
- Numeracy (Intermediate 2)
- Digital Media: Audio (SCQF level 6)
- Digital Media: Video (SCQF level 6)

Plus

- Balance of Semester 2 content will be at the discretion of the centre

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e-assessment and e-learning

The design for almost all Units in the awards 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 on-line 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.

At the time of writing there are already several areas of this award where vendor-donated curriculum support materials are available in electronic formats. These include materials from: Microsoft, Adobe and Serif. This will provide materials suitable for on-line access in whatever form centres may judge appropriate (for example, through a college VLE). Centres are encouraged to make e-learning an integral part of their delivery of these awards, preparing candidates for independence in their learning and for learning through their lifetime. However, given the largely practical nature of almost all of the mandatory and optional Units, and the requirement that all candidate performance and product evidence should be authenticated by the assessor, it is unlikely that any significant proportion of this award could be solely delivered by e-learning.

Core Skills

The arrangements for Core Skills delivery, particularly in communication and numeracy, vary considerably from centre to centre. Centres should have the flexibility to deploy college-wide strategies in support of their candidates to ensure that wherever possible all candidates have the opportunity to make further progress in their Core Skills at entry, while ensuring that all have the minimum required for success in the award. In the design of the award consideration has been given to providing opportunities for developing communication and numeracy Core Skills in a computing context.

At SCQF level 6 the Core Skill of Using IT is provided through successful completion of the mandatory Unit *Computing: Office and Productivity Applications.* This Core Skill is also carried at SCQF level 6 by the optional Unit *PC Passport: Working with IT Software: Word Processing and Presenting Information.*

This award provides an opportunity for a candidate to make progress in relation to the remaining Core Skills of *Problem Solving* and *Working with Others*. A significant proportion of the Units in the options list provide signposting for these Core Skills. For example, it is clear that the nature of the practical work that permeates this award will provide ample opportunity for collaboration to take place among learners. These opportunities are clearly signposted in the Unit specifications, and are listed in the tables that follow.

National Certificate Digital Media Computing at SCQF level 6

Core Skills mapping

Core Skill	Level at Entry	Minimum level on completion	Route(s) to acquiring Core Skill
Numeracy	Intermediate 1	Intermediate 2	♦ **Mandatory Units (embedded):** — Numeracy (Core Skill) D01B 11 ♦ **Optional Units(signposted):** — Core Maths 4 D11V 11 — Maths Analysis/Algebra 1 D11W 11
Communication	Intermediate 1	Intermediate 2	♦ **Mandatory Units (embedded):** — Communication (Core Skill) D01C 11 ♦ **Mandatory Units (signposted):** — Computing: Digital Media Elements for Applications — PC Passport: Working with Internet and On-line Communications ♦ **Optional Units (signposted):** — PC Passport: Working with IT Software: Word Processing and Presenting Information — Computing: Install and Maintain Computer Software — Digital Media: Still Image
IT User	Intermediate 1	Higher	♦ **Mandatory Units (embedded):** — Computing: Office and Personal Productivity Applications ♦ **Mandatory Units (signposted):** — Computing: Computer Hardware and Systems ♦ **Optional Units (embedded):** — PC Passport: Working with IT Software: Word Processing and Presenting Information ♦ **Optional Units (signposted):** — Computing: Troubleshoot and Secure IT Systems — Digital Media: Audio — PC Passport: Working with IT Software: Spreadsheets and Databases — PC Passport: Working with IT Security for Users

Core Skill	Level at Entry	Minimum level on completion	Route(s) to acquiring Core Skill
Problem Solving	Not specified (Intermediate 2 suggested)	Component parts of Higher	♦ **Mandatory Units (signposted):** — Computing: Digital Media Elements for Applications — Computing: Office and Personal Productivity Applications — Optional Units (embedded): — Creative Thinking and Goal Setting DV91 11 (Intermediate 2) ♦ **Optional Units(signposted):** — Computing: Install and Maintain Computer Software — Computing: Install and Maintain Computer Hardware — Computing: Troubleshoot and Secure IT Systems — Computing: Authoring a Website — Computing: Plan and Build a Network — Digital Media: Still Images — Digital Media: Audio — Digital Media: Video
Working with Others	Not specified (Intermediate 2 suggested)	Component parts of Higher	♦ **Mandatory Units (signposted):** — Computing: Digital Media Elements for Applications — PC Passport: Working with Internet and On-line Communications ♦ **Optional Units (signposted):** — PC Passport: Working with IT Software: Word Processing and Presenting Information — Computing: Install and Maintain Computer Software — Computing: Install and Maintain Computer Hardware — Computing: Troubleshoot and Secure IT Systems — Computing: Authoring a Website — Computing: Plan and Build a Network — Digital Media: Still Images — Digital Media: Audio — Digital Media: Video

7 General information for centres

Candidates with disabilities and/or additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (**www.sqa.org.uk**).

Internal and external verification

All instruments of assessment used within this/these Group Award(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 and Quality Assurance for Colleges of Further Education* (**www.sqa.org.uk**).

8 General information for candidates

The National Certificate in Digital Media Computing award at SCQF levels 6 is intended to prepare candidates for progression to further study in computing and IT subjects. It is a broadly-based award that provides a foundation in the knowledge and skills of computing and IT that will be necessary for those intending to later specialise in aspects of computing or related subjects. Candidates will become competent in selecting and using computer systems and applications to find solutions to problems, and in acquiring and evaluating information from the Internet. The inclusion of computer hardware and multimedia topics in the core of the award ensures that candidates will develop skills relevant for the modern age. The award will help ensure that candidates have skills that are currently in demand by employers by working closely to the National Occupational Standards for IT Users.

The award is made up of a set of core (mandatory) Units that all candidates will have to achieve and a wide range of optional Units to allow programmes to be tailored to meet individual requirements. The mandatory computing and IT subjects are:

♦   Computer Hardware and Systems
♦   Office and Personal Productivity Applications
♦   Digital Media Elements
♦   Internet and On-line Communications

It is also mandatory that the candidate achieves a minimum level in the Core Skills of communications and numeracy. These are deemed essential for progress in further study and are demanded by employers. These 6 Units must be passed for success in the award.

The optional part of the award offers a wide range of Units from SCQF level 5 (Intermediate 2) to SCQF Level 6 (Higher). The range of topics offered includes:

- Computer hardware and software
- Computer networking
- Web design and development
- Computer games
- Computer animation
- Digital media (still image, video, audio)
- Programming and software development
- Business IT (wordprocessing, spreadsheets, database, presentation)

These Units all provide candidates with opportunities to develop the Core Skills of *Problem Solving* and *Working with Others*, along with transferable skills of enterprise and employability.

An appropriate choice of optional Units should help candidates to prepare for progression to HN level awards in:

- HNC Computing
- HND Computing: Technical Support
- HND Computing: Software Development
- HNC Interactive Media (2nd year under development)
- HNC/HND Interactive Multimedia Creation
- HNC/HND Multimedia Computing: Web Development
- HND Multimedia Computing
- HNC Computing Networking
- HND Computer Networking and Internet Technology
- HNC Computer Games Development
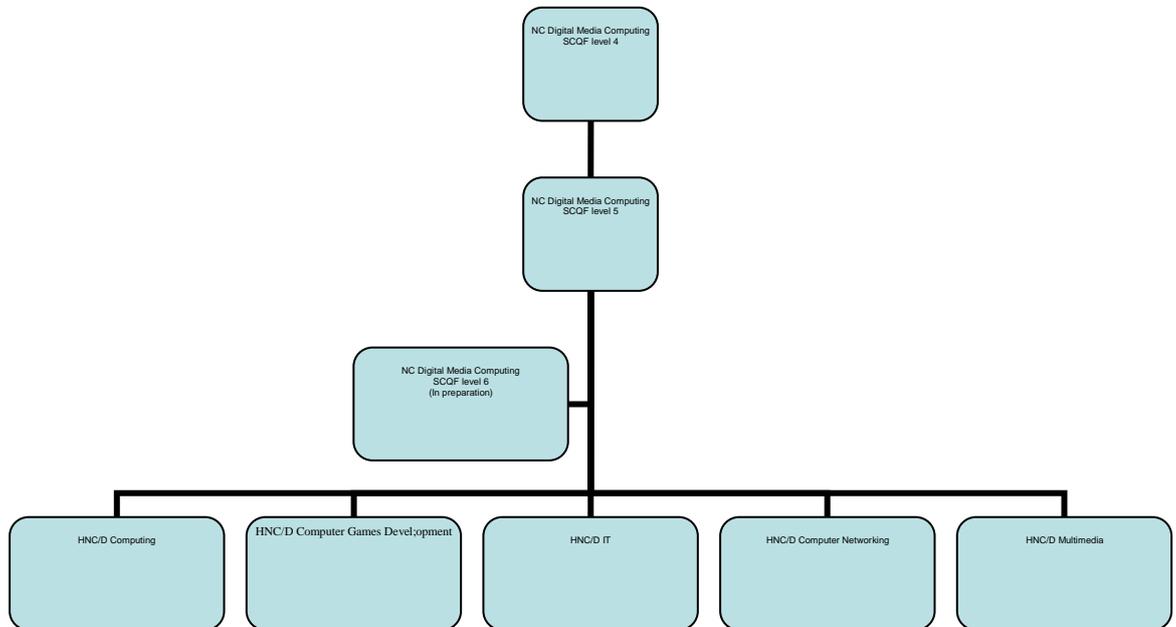- HNC/HND Information Technology

Each presenting centre will offer advice to candidates on what these appropriate choices are.

Candidates should expect to be given some independence in their learning, with extensive use being made of resources available through the Internet. New concepts or skills will be taught or demonstrated in the classroom, with candidates further developing their knowledge through research and analysis, and their skills through practical work. In some topics, teaching staff will provide e-learning resources so that learning can take place to suit the candidate. Working in groups or teams will be encouraged.

This award is intended to be as practical as possible, while developing underpinning knowledge and understanding. As a result the assessment activities within the award will centre around a range of practical activities, involving the use of computer hardware and software. Considerable use will be made of a specification (or brief) for which the candidate will be required to design and/or implement a computer-based solution. Assessors will use checklists and/or evaluation forms to record candidates' progress. The knowledge Outcomes of a Unit will usually be assessed through a short test conducted under closed-book conditions (typically 20 questions in 45 minutes). These tests may be administered on-line (computer-based assessment). Re-assessment of a test will be a similar (but different) test. Re-assessment of practical work will usually involve a re-working of the practical activity to meet the required standard.

Progression pathways

Progression within these awards is described in the diagram below:

9 Glossary of terms

SCQF: This stands for the Scottish Credit and Qualification Framework, which is a new way of speaking about qualifications and how they inter-relate. We use SCQF terminology 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: One SCQF credit point equates to 10 hours of learning. NQ Units at SCQF levels 2-6 are worth 6 SCQF credit points, NQ Units at level 7 are worth 8 SCQF points.

SCQF levels: The SCQF covers 12 levels of learning. 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.

Dedicated Core Skill Unit: This is a Unit that is written to cover one or more particular Core Skills, eg National Units in Information Technology or Communications.

Embedded Core Skills: This is where the development of a Core Skill is incorporated into the Unit and where the Unit assessment also covers the requirements of Core Skill assessment at a particular level.

Signposted Core Skills: This refers to the opportunities to develop a particular Core Skill at a specified level that lie outwith automatic certification.

Qualification Design Team: The QDT works in conjunction with a Qualification Manager/Development Manager to steer the development of the National Certificate/National Progression Award from its inception/revision through to validation. The group is made up of key stakeholders representing the interests of centres, employers, universities and other relevant organisations.

Consortium-devised National Certificates/National Progression Awards are those developments or revisions undertaken by a group of centres in partnership with SQA.