



Arrangements for:
PDA in Website Design
at SCQF level 7

Group Award Code: GE3F 47

Validation date: October 2011

Date of original publication: November 2011

Version: 01

Acknowledgement

SQA acknowledges the valuable contribution that Scotland's colleges have made to the development of Higher National qualifications.

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1 Introduction

This is the Arrangements Document for the new Group Award GE3F 47 PDA in Web Design at SCQF level 7, which was validated in October 2011. 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.

2 Rationale for the development of the Group Award

In 2008 3 PDAs were developed to be integrated with the newly devised Group Award G8LT 15 HNC Interactive Media. The main aim of this was to provide links with vendor certification:

- ◆ G902 47 PDA in Web Technologies: Fundamentals at SCQF level 7 — Maps to CIW (Certified Internet Web Professional) Web Foundations Associate
- ◆ G903 47 PDA in Web Development at SCQF level 7 — Maps to Adobe certification in Dreamweaver
- ◆ G904 47 PDA in Digital Imaging at SCQF level 7 — Maps to Adobe certification in Photoshop

It was planned to expand the suite of PDAs with the development of the Group Award G9AY 16 HND Interactive Media. The PDA in Web Site Design is mapped to the CIW *Web Design Specialist* qualification to, build on the PDA in Web Technologies: Fundamentals and become optional Units within the HNC and HND Interactive Media Group Awards. This differs from the PDA in Web Development, which mainly focuses on using a development tool to produce Web pages (content creation, client and server side scripting aren't covered). Both PDAs complement each other.

Mapping research was carried out initially during 2009–2010 to check if existing Units in the HND and SQA curriculum could be used for the PDA. This identified that there was a lot of commonality with the some Units and the 34 lessons of CIW *Web Design Specialist*. However, modifications would have to have been applied that could have skewed Units, some which Centres had been delivering for some time. Research found that new Units had to be produced. Three new Units have been produced which map to CIW *Web Design Specialist*. The three Units focus on particular tasks of the web development process:

- 1 FW5C 34 *Web Site Design: Planning & Design.*
- 2 FW5D 34 *Web Site Design: Multimedia Content Creation.*
- 3 FW5E 34 *Web Site Design: Development Technologies.*

The Core Skills of *Communications, Problem Solving, Working with Others* and *Information and Communication Technology (ICT)* at SCQF level 6 can be developed in this PDA.

This Professional Development Award in Web Site Design at SCQF level 7 consists of Higher National Units that have been written in as generic a way as possible, thus allowing the centre to select the delivery software, languages and hardware platforms although the content of the Professional Development Award is mapped to CIW (Certified Internet Web Professional) certified curriculum (as at July 2011).

SCQF level 7 is deemed appropriate as the PDA requires Candidates to:

- ◆ demonstrate and/or work with: a broad knowledge of the subject/discipline in general.
- ◆ use some of the basic and routine professional skills, techniques, practices and/or materials associated with a subject/discipline.
- ◆ Use a wide range of routine skills and some advanced skills associated with the subject/discipline.

This PDA in Web Site Design at SCQF level 7 offers a progression route for articulation for the holders of an award from the National Certificate in Digital Media Computing suite of awards. Details of progression routes and links to other awards can be found in Appendix 1— Links to other awards.

This qualification is aimed at Web and Interactive Media industries and as such relates to Skillsets *Interactive Media* NOS (National Occupational Standards).

Employees looking to enhance their skills and gain a qualification find it difficult to commit to a part-time HNC over a 2 year period in the evening or even longer on a day-release basis. They often want to gain a qualification in a specialist area often found within an HNC or HND. This PDA in Web Site Design at SCQF level 7 will offer an opportunity for a candidate to study a small focused course in planning and developing a website which would also count towards an HNC and HND in Interactive Media.

This award is aimed at a wide range of Candidates such as school leavers, adult returners, those in work, self-employed. On achieving this PDA this will help Candidates gain qualifications relevant for junior positions in the Web and Interactive Media industries.

Market research was carried out in the autumn 2010 to ascertain if there was a need for the PDA, if content was relevant, what SCQF level it should be, how many Units it should contain, modes of delivery, typical Candidates, popularity of linking PDAs to vendor awards and relevance for industry. Surveys were developed in Survey Monkey and distributed via email to industry representatives, FE/HE staff and Candidates in Scotland.

Summary of market research results from the Industry survey

Six industry representatives participated in the survey. The overall results are extremely favourable. The main findings were:

- ◆ 100% thought that the content was relevant for the PDA.
- ◆ 87% thought that the content was extremely/very relevant for industry.
- ◆ 62% stated that their employees used the topics as daily parts of their job.
- ◆ 62% stated that there is a gap in current Web design and development qualifications that could be covered by this PDA.
- ◆ 68% stated the PDA was more apt for HNC level.
- ◆ 100% stated that they are satisfied with the aims of the PDA Web Design.
- ◆ 100% think there is a need to have a PDA in Web Design.
- ◆ 100% support a PDA in this area.
- ◆ 71% felt that someone with the PDA Web Design as part of their qualifications or experience would be suitable for employment within industry. These would be mainly junior positions.
- ◆ 86% felt that PDAs are an attractive way of delivering qualifications such as CIW.
- ◆ 100% strongly agreed/agreed that the opportunity for additional certification such as CIW, is important within an HNC/HND award.
- ◆ 85% strongly agreed/agreed that CIW is attractive to industry.
- ◆ 83% stated that it is attractive to use CIW qualifications to automatically gain SQA qualifications such as the PDA.
- ◆ 71% stated that their employees would be interested in doing this PDA. These would mainly be junior developers, project managers and site administrators who would study this mainly part-time or flexible learning in college or the workplace.

The only changes since the survey are the title of the award and number of Units. PDA Web Design was the proposed title however the term 'design' conjures up visual interface. On further inspection of CIW Web Design Specialist the content covers a wider scope of design and development, therefore PDA in Web Site Design is more accurate.

With regards to the PDA content, three Units have been created as opposed to two Units. It was decided by the Lead Developer and an SQA External Verifier that one of the Units had too much content and had to be split or become a 2 credit Unit. Single credits are more flexible for this award, particularly as the HNC/HND Interactive Media has a large amount of mandatory Units.

Summary of market research results from the Staff survey

Thirty-eight members of staff from FE and at least one from HE completed the survey — SQA emailed the survey to their list of national contacts. The overall results are extremely favourable. The main findings were:

- ◆ 92% felt that the content was appropriate for the PDA.
- ◆ 78% felt that the content was extremely/very relevant for industry.
- ◆ 47% felt that there is a gap in the current Higher National Units that could be covered by this PDA — 39% didn't no.
- ◆ 62% stated that SCQF level 7 was appropriate.
- ◆ 65% stated that it was better to create new Units for the PDA as opposed to modifying existing ones.
- ◆ 82% were satisfied with the aims of the PDA.
- ◆ 94% thought that cross assessment/delivery with the mandatory Units of the HNC/HND Interactive Media was a very attractive option.
- ◆ 92% felt a need for this PDA.
- ◆ 74% felt that evening class would be the most likely mode of delivery.
- ◆ 76% saw this PDA as the main candidates enrolling on this Group Award.
- ◆ 44% don't deliver PDAs but 50% of these are planning to.
- ◆ The majority have an interest in delivering several of the CIW awards with Web Foundations and Web Design Specialist being of most interest.
- ◆ 46% have CIW qualified staff in their centre.
- ◆ 97% thought that PDAs are effective ways of delivering qualifications such as CIW.
- ◆ 81% would use the PDA to prepare Candidates for CIW Web Design Specialist qualification.
- ◆ 86% strongly agreed/agreed that it's important to have the opportunity to have additional certification such as CIW within an HNC/HND.
- ◆ 91% stated that it is important for Candidates to have vendor certification.
- ◆ 89% strongly agreed/agreed that a candidate who has successfully completed the PDA Web Design would have gained some of the appropriate skills for employment.

Summary of market research results from the Candidate survey

Sixty-eight candidates from a number of centres at mainly NC and HN level completed the survey — SQA e-mailed the survey to their list of national contacts. The overall results are extremely favourable. The main findings were:

- ◆ 92% felt that the content was appropriate for the PDA.
- ◆ 59% of HN candidates had already covered the content in their course.
- ◆ 72% thought it was very attractive to cross deliver/assess the PDA with other Units.
- ◆ 88% were satisfied with the aims of the PDA.
- ◆ 97% saw a need for the PDA.
- ◆ 73% would like the opportunity to do the PDA.
- ◆ 45% would prefer to do this as part of their HNC/HND.
- ◆ 46% would like to gain CIW certification as part of the PDA.
- ◆ 72% strongly agreed/agreed that it is important to include vendor certification as part of an HNC/HND.
- ◆ 74% felt that CIW certification would help them towards gaining employment.

Employment market

As of July 2011 www.s1jobs.co.uk and <http://www.itjobswatch.co.uk/> are showing a good level of demand for Web developers and designers.

3 Aims of the Group Award

Below are the principal and specific aims for the PDA in Web Site Design at SCQF level 7.

3.1 Principal aims of the Group Award

This Professional Development Award in Web Site Design at SCQF level 7 has a range of broad aims which are generally applicable to all equivalent Higher National or associated qualifications. The principal aims are to:

- ◆ develop the candidate's knowledge and skills working on Web development projects.
- ◆ develop employment skills and enhance candidates' employment prospects, by offering the opportunity to develop skills in industry.
- ◆ standard software.
- ◆ provide Candidates with the opportunity to gain vendor certification with CIW and additional qualifications.
- ◆ enable progression within the Scottish Credit and Qualifications Framework.
- ◆ develop study and research skills.
- ◆ develop the transferable skill of problem solving.
- ◆ provide academic stimulus and challenge, and foster an enjoyment of the subject.

3.2 Other aims of the Group Award

These include:

- ◆ developing employment skills related to the National Occupational Standards and so enhancing candidates' employment prospects.
- ◆ prepare a candidate for entry-level employment in range of sectors that use the internet and the web as a fundamental part of their business.
- ◆ develop fundamental knowledge of current technologies and processes involved in producing Websites.
- ◆ prepare a candidate for progression to further study in the interactive media, multimedia, Web development or a related area.

4 Recommended Access to Group Award

As with all SQA qualifications, access will be at the discretion of the centre. Candidates should be familiar with a computer operating system and have some knowledge of Web sites. The following recommendations for access are for the PDA in general and are for guidance only:

- ◆ G902 47 PDA in Web Technologies: Fundamentals.
- ◆ a CIW Foundations level qualification.
- ◆ different combinations of relevant National Certificate, National Qualifications, Vocational Qualifications and equivalent qualifications from other awarding bodies may also be acceptable, as would suitable vendor qualifications at an appropriate level.
- ◆ *Communication* skills at SCQF level 5 or 6 or equivalent.
- ◆ *Information and Communication Technology* skills at SCQF level 5 or 6 (preferable) or equivalent.
- ◆ *Problem Solving* skills at SCQF level 5 or 6 or equivalent.
- ◆ *Working with Others* skills at SCQF level 5 or 6 or equivalent.
- ◆ candidates with suitable work experience may be accepted for entry provided the enrolling Centre believes that the candidate is likely to benefit from undertaking the award.
- ◆ such work experience may provide inferred or actual evidence of a candidate's skills and knowledge as they apply either to particular Units.

Candidates can be in the process of attaining these. Specific recommendations for each Unit are as follows.

FW5C 34 Web Site Design: Planning & Design

Access to this Unit is at the discretion of the Centre. Candidates should be familiar with a computer operating system and have some knowledge of Web sites. It would be beneficial if Candidates had attained the PDA in Web Technologies: Fundamentals (G902 47) or a CIW (Certified Internet Webmaster) Foundation qualification. The successful completion of NC Digital Media Computing or Web Units at SCQF level 5 or 6 would be a good foundation for Candidates progressing to this Unit.

FW5D 34 Web Site Design: Multimedia Content Creation

Access to this Unit is at the discretion of the Centre. Candidates should be familiar with a computer operating system and have some knowledge of Web sites. It would be beneficial if Candidates had attained the PDA in Web Technologies: Fundamentals (G902 47) or a CIW (Certified Internet Webmaster) Foundation qualification. It would also be beneficial if Candidates have some basic knowledge of creating media elements, but this is not essential. The successful completion of graphics or animation Units at HN level or NC Digital Media Computing at SCQF level 5 or 6 would be a good foundation for Candidates progressing to this Unit.

FW5E 34 Web Site Design: Development Technologies

Access to this Unit is at the discretion of the Centre. Candidates should be familiar with a computer operating system and have some knowledge of Mark-up language and Web sites. The successful completion of F203 34 *Web Development Fundamentals*, PDA Web Technologies Fundamentals (G902 47), a CIW (Certified Internet Webmaster) Foundation qualification, NC Digital Media Computing or Web Units at SCQF level 5 or 6 would be a good foundation for candidates progressing to this Unit.

5 Group Award structure

The PDA in Web Site Design at SCQF level 7 comprises of three single credit Units. All Units are mandatory to achieve the full Group Award. This award has been based on and mapped to *CIW Web Design Specialist*.

5.1 Framework

The PDA consists of 24 SCQF credit points all at level 7. This adheres to the design principles for PDAs. There are three Units, all of which are mandatory:

Unit title	Code	SCQF credit points	SCQF level	SQA credit value
Web Site Design: Planning & Design	FW5C 34	8	7	1
Web Site Design: Multimedia Content Creation	FW5D 34	8	7	1
Web Site Design: Development Technologies	FW5E 34	8	7	1

SCQF level 7 is proposed as research of CIW Web Design Specialist, including market research determined that this was the most appropriate level.

All Units link to the specific aims of the Group Award.

5.2 Mapping to Skillsets Interactive Media NOS (National Occupational Standards)

The Units of the PDA in Web Site Design map to some of the components (*Knowledge and Understanding, Awareness and Performance Statements*) of Skillsets NOS for *Interactive Media* (published June 2009) and also some of the Supporting Units. In some cases coverage is generic more so than specific. The IM NOS can be downloaded from <http://www.skillset.org/standards/standards/IM/>

*Signifies the Unit which maps more closely, when more than one Unit has been identified. If no Unit has been highlighted this implies equality of the NOS amongst the Units.

IM NOS	Mandatory Units		
	1 Design & Planning	2 Multimedia Content Creation	3 Development Technologies
IM1 Work Effectively In Interactive Media	✓	✓	✓
IM2 Obtain Assets For Use In Interactive Media Products	✓	✓*	✓
IM3 Prepare Assets For Use In Interactive Media Products	✓	✓*	✓
IM5 Design User Interfaces For Interactive Media Products	✓*	✓	-
IM6 Use Authoring Tools To Create Interactive Media Products	✓	✓	✓*
IM7 Code Scripts To Provide Functionality For Interactive Media Products	✓	✓	✓*
IM8 Determine The Implementation Of Designs For Interactive Media Products	✓	✓	✓
IM9 Provide Creative And Strategic Direction For Interactive Media Projects	✓*	✓	✓
IM10 Initiate Interactive Media Projects	✓*	-	-
IM11 Manage Intellectual Property Rights	✓*	✓	✓
IM12 Devise and Evaluate User Testing Of Interactive Media Products	✓*	-	✓
IM13 Conduct User Testing Of Interactive Media Products	✓*	-	✓
IM15 Write And Edit Copy For Interactive Media Products	✓	-	-
IM16 Plan Content For Web And Multimedia Products	✓*	✓	✓

Units	1 Design & Planning	2 Multimedia Content Creation	3 Development Technologies
IM17 Architect Interactive Media Products	✓*	✓	✓
IM18 Use Mark-Up In Interactive Media Products	✓	✓	✓*
IM19 Use Style-Sheets In Interactive Media Products	✓	✓	✓*
IM24 Create 2D Animations For Interactive Media Products	✓	✓*	✓
IM27 Create Sound Effects For Interactive Media Products	✓	✓*	-
IM28 Create Music For Interactive Media Products	✓	✓*	-
IM29 Direct Asset Production For Interactive Media Products	✓	✓*	✓
IM30 Optimise Web Pages For Search Engines	✓*	✓	✓

Mapping to IM NOS Supporting Units

The following AOC (areas of competency) have been identified by Skillset as **supporting Units** for the Interactive Media NOS. These draw on other NOS from Skillset (*Animation, Design for the Moving Image, Publishing, Journalism and Advertising*) and four other bodies; *Management Standards Centre (MSC), Small Firms Enterprise (SFE) Development Initiative, E-Skills Sector Skills Council (ESK) and Publishing Skills Group (PSG)*. For further information see page 33 of the IM NOS.

SKS = Skillset SSC (www.skillset.org)

MSC = Management Standards Centre (www.management-standards.org.uk)

SFE = Small Firms Enterprise Development Initiative (www.sfedl.co.uk)

ESK = E-Skills SSC (www.e-skills.com)

PSG = Publishing Skills Group (www.train4publishing.co.uk/)

Create and Edit Media Assets *and* Produce Written Content

IM AOC	Mandatory Units		
Units	1 Design & Planning	2 Multimedia Content Creation	3 Development Technologies
SKS D1 — D11 Produce digital images	-	✓	-
SKS DMI30 — DMI38 Produce graphics	-	✓	-
SKS ANIM03 — Conceptualise the product	✓	✓*	-
SKS ANIM08 — Create designs	✓	✓*	-
Units	1 Design & Planning	2 Multimedia Content Creation	3 Development Technologies
SKS ANIM11 — Create 2D visuals for production	-	✓	-
SKS ANIM12 — Create 2D animation	-	✓	-
SKS ANIM14 — Set up 3D elements for animation	-	✓	-
SKS ANIM15 — Create 3D animation	-	✓	-
SKS ANIM16 — Render 3D animation	-	✓	-
PSG 19 — 22 Editing	✓	-	-

Contribute to Product Design

IM AOC	Mandatory Units		
Units	1 Design & Planning	2 Multimedia Content Creation	3 Development Technologies
SKS DMI 1 — Assist with the technical design process	✓	✓*	-
SKS DMI 2 — Record, store and supply design information	✓	✓	✓
SKS DMI 3 — Contribute to the production of designs using IT	✓*	✓	✓
SKS DMI 4 — Assess the technical implications of the design brief	✓*	✓	✓
SKS DMI 6 — Liaise with decision makers regarding the adaptation of existing design solutions	✓*	✓	✓

Develop Software (E-Skills NOS)

At the time of publication of the IM NOS in June 2009, the following E-Skills Units were amongst several that had been identified by Skillset as most relevant to the Interactive Media sector. They formed part of the **Develop Software AOC for Creative and Technical Skills**. The E-skills NOS was updated in September 2009 and the following AOC are now primarily covered by **Disciplines 4–7**. FW5C 34 *Web Site Design: Planning & Design* and *Web Site Design: Development Technologies* relate in part to some of the following AOCs:

- ◆ ESK ITPDADSD Data analysis and data structure design
- ◆ ESK ICTSDD Software development — design
- ◆ ESK ITPMSD Managing software development
- ◆ ESK ICTQM Quality management of ICT products and services
- ◆ ESK ICTTEST Testing ICT systems

Personal skills

The following supporting Units are amongst several that have been identified by Skillset as most directly relevant to the Interactive Media sector. All the Units of the PDA Web Site Design provide candidates with the opportunity to develop skills in each of these AOCs:

1 Manage Your Work

This AOC is about managing your time and schedule, asking for help when you need it, and ensuring you are able to produce work of the required quality within the allocated deadline.

- ◆ MSC A1 Manage your own resources
- ◆ SFE H1 Improve your time management and delegation skills
- ◆ ESK 18 Develop personal and organisational effectiveness

2 Work with Others

This AOC is about working as part of a team, and communicating with other people.

- ◆ MSC D1 Develop productive working relationships with colleagues
- ◆ MSC D2 Develop productive working relationships with colleagues and stakeholders
- ◆ SKS X1 Contribute to good working relations
- ◆ SKS DMI14 Liaise with team members to assist the production process
- ◆ ESK CCIWC Interpersonal and written communication
- ◆ MSC E5 Ensure your own actions reduce risks to health and safety

3 Make Effective Use of IT

This AOC is about using computers and software applications — knowing what systems to use, how to use them and how to resolve problems with them.

- ◆ SFE F2 Communicate using IT
- ◆ SFE F3 Choose and use computers and software
- ◆ SKS DMI3 Contribute to the production of designs using IT

4 Keep Your Skills Up To Date

This AOC is about maintaining your on-going professional development.

- ◆ MSC A2 Manage your own resources and professional development
- ◆ SFE A3 Check your own skills
- ◆ MSC A3 Develop your personal networks

Business and Management Skills

1 Sales and Marketing

This AOC is about promoting your organisation and its products or services in order to generate revenue. These relate in part to all Units, though mostly to FW3C 34 *Web Site Design: Planning & Design*.

- ◆ MSC F4 Develop and review a framework for marketing
- ◆ MSC F9 Build your organisation's understanding of its market and customers
- ◆ PSG 28 – 33 Marketing published products

2 Manage Projects

This AOC is about managing project budgets, resources, schedules, deliverables and approvals. These relate mainly to A99A 99 *Web Site Design: Planning & Design*.

- ◆ MSC F1 Manage a project
- ◆ MSC D5 Allocate and check work in your team
- ◆ MSC D6 Allocate and monitor the progress and quality of work in your area of responsibility
- ◆ SKS DMI 11 Negotiate and agree the design and budget
- ◆ PSG 16 – 18 Manage editorial

3 Manage People

This AOC is about recruiting, retaining, managing, leading and developing your workforce. This is relevant if a group approach is used for the practical assessments of all the Units.

- ◆ MSC D4 Plan the workforce
- ◆ MSC B5 Provide leadership for your team
- ◆ MSC B6 Provide leadership in your area of responsibility
- ◆ MSC B7 Provide leadership for your organisation
- ◆ MSC B9 Develop the culture of your organisation
- ◆ MSC C1 Encourage innovation in your team
- ◆ MSC C2 Encourage innovation in your area of responsibility
- ◆ MSC C3 Encourage innovation in your organisation

4 Freelancing

This AOC is about working as a freelancer. This has some relevance for all Units of the PDA in Web Site Design particularly since they focus on the importance of developing and maintaining a portfolio.

- ◆ SKS F1 Manage and market yourself as a freelancer

5.3 Core Skills

The recommended entry level of Core Skills is detailed in *Section 4 Recommended Access to Group Award(s)*.

There are opportunities to develop the Core Skill(s) of *Problem Solving* (Critical Thinking and Planning and Organising), *Working with Others* (Working Co-operatively with Others), *Communication* (Written Communication) and *Information and Communication Technology* in these Units.

Problem Solving (Critical Thinking and Planning and Organising) can be applied to the practical assessments of all Units. Critical Thinking and Planning and Organising is pertinent to FW5C 34 *Web Site Design: Planning & Design* and these Core Skills components are embedded at SCQF level 5 for Critical Thinking and SCQF level 6 for Planning and Organising and will be automatically certificated on successful completion of the Unit. Critical Thinking is also embedded at SCQF level 5 within *Website Design: Multimedia Content Creation* and *Website Design: Development Technologies*. If the PDA is being delivered as a stand-alone course with a holistic project for all three Units then organisational skills could be developed by using a project diary and updating a schedule.

Working with Others (Working Co-operatively with Others), could be developed if a team approach is used for the practical assessments of all Units. Meetings and agendas could be used to evidence co-operative working.

Communication (Written Communication) could be developed with Outcome 2 of FW5C 34 *Web Site Design: Planning & Design*, where candidates have to produce documentation to plan and design a website.

Information and Communication Technology could be developed through using a range of equipment and software to present information, plan, design and produce Web pages, for securing and managing data and carrying out research throughout the PDA. The Core Skill component Providing/Creating information at SCQF level 5 is embedded within the Units *Website Design: Multimedia Content Creation* and *Website Design: Development Technologies* and will be automatically certificated on successful completion of the Unit.

5.4 Conditions of award

Candidates are required to achieve all three mandatory Units to achieve the PDA Web Site Design.

6 Approaches to delivery and assessment

This PDA in Web Site Design at SCQF level 7 has been designed to become an additional, optional qualification of the HNC (G8LT 15) and HND (G9AY 16) in Interactive Media. The Units will be added to the list of optional Units for both Group Awards. The PDA Units can also be cross assessed and delivered with a number of mandatory Units for both these Group Awards and other Units in the SQA curriculum — see Appendix 2 — Units for Cross Assessment/delivery.

The PDA Units can also be delivered in conjunction with the CIW Web Design Specialist qualification.

6.1 Content and context

The PDA in Web Site Design focuses on how to manage the Web site development process, the role of the Web designer, site design from several perspectives such as users and clients, business goals, content creation, developing Web pages using client and server technologies, publishing and marketing a Website. The end result is that Candidates have produced prototype Web pages for inclusion in their portfolio. The three Units focus on particular areas and tasks of the development process at an introductory level.

The PDA is based on the CIW *Web Design Specialist* qualification. At the time of writing this consists of 34 lessons, delivered over 60 hours +. These lessons were split up and contextualised into the three Units of the PDA.

Web Site Design: Planning & Design — two Outcomes

This Unit introduces key factors involved in managing the Web site development process. In Outcome 1 candidates will be taught how Web sites are developed as managed projects and the fundamental aspects of planning and designing a Web site. Outcome 2 deals with how to put this knowledge into practice. Candidates will assume the roles of Web designer and project manager, as they work through planning and design tasks of the Web site development process. The two Outcomes are:

- 1 Demonstrate knowledge of factors involved in planning and designing a Web site.
- 2 Plan and design a Web site.

Topics focus on how the Web differs from other media e.g lean back and lean forward technologies, usability, accessibility, interface design principles, effective navigation, browser differences, different user requirements, client expectations, legal issues and SEO (Search Engine Optimisation) and marketing. To summarise the Unit deals with the various factors that have to be considered before starting to build a site.

At the time of writing this Unit is based on lessons 1, 2, 3 4, 5, 6, 7, 8, 11, 16 and 34 (if discussing web hosts) of CIW *Web Design Specialist*.

Web Site Design: Multimedia Content Creation — four Outcomes

This Unit introduces Candidates to some of the key factors to be considered when incorporating multimedia such as graphics, animation and plug-ins into a Web site.

In Outcome 1 Candidates start off with looking at why multimedia is used and how it can be used effectively on Web sites. The Unit then progresses to creating basic multimedia content whereby Candidates are introduced to some of the basic skills required to create graphics and animation in Outcomes 2 and 3. Outcome 4 then introduces how to apply certain multimedia file formats using links and plug-ins. The four Outcomes are:

- 1 Demonstrate knowledge of multimedia used on websites.
- 2 Create graphics.
- 3 Create an animation.
- 4 Apply multimedia elements to a webpage.

Candidates will be taught about how multimedia should be used and how to produce a simple animation, graphic and edit an image and how to apply these and other plug-in files such as PDFs and Java Applets to webpage's.

At the time of writing this Unit is based on lessons 9, 10, 24-29 and 31 of CIW *Web Design Specialist*.

Web Site Design: Development Technologies — three Outcomes

This Unit introduces Candidates to some of the core client side and server side languages, technologies and tools required to create and publish Web sites. This includes securing and maintaining Web sites and Web servers. Candidates will focus on these factors to produce and publish a website or series of web pages to add to their portfolio. The three Outcomes are:

- 1 Use Web mark-up and styling languages to create Web pages.
- 2 Use Web development tools to create Web pages.
- 3 Use client and server side technologies to create and publish Web pages.

Topics focus on the evolution of Mark-up for the Web, HTML, XHTML, XML, styling pages, using different types of development tools, client side scripting eg form validation, server side scripting and the fundamentals of databases, publishing sites and managing and securing Web servers.

Typically Candidates will produce a small amount of standard Web pages, preferably based on a realistic topic, which have been created using a Web development tool and include some client side scripts and a server side script to connect to a readymade database. They will test and upload the pages to a Web server. The pages will be based on current accessibility standards and relevant SEO techniques will be applied.

At the time of writing this Unit is based on lessons 12–16 (16 in part), 17–23 and 30–34 of *CIW Web Design Specialist*.

6.2 Delivery and assessment

There is no particular order that the Units of the PDA Web Site Design have to be delivered in. The sequence should primarily be based on what is best for the Candidate, as well as the nature of the course. For example if this is being delivered as a short standalone course, it may be pertinent to deliver the Units in tandem so that Candidates are gaining some practical Web development experience from the start.eg:

Primary Unit	Delivered alongside:
Web Site Design: Development Technologies	Web Site Design: Planning and Design
	Web Site Design: Multimedia Content Creation

The Units are written so that they relate to each other, can build on each other but also so that they can be delivered completely standalone. For example they could be scattered across the HNC/HND Interactive Media whether as standalone Units or cross delivered with many Units see Appendix 2 — Units for Cross Assessment/delivery.

The Units can be delivered using the official learning materials for *CIW Web Design Specialist*. These materials will cover all the up-to-date content required to prepare Candidates for both the CIW Web Design Specialist exam and the assessments for the PDA.

If Candidates achieve the CIW Web Design Specialist exam they will be automatically accredited for the PDA. This does not apply vice versa. Candidates will need to provide authentic proof from CIW before they can be awarded the PDA.

Opportunities exist for Candidates with previous work experience to fast-track the PDA Web Site Design. APEL (Accredited Prior Experiential Learning) should be applied according to SQA guidelines.

A holistic approach should be encouraged for the delivery of all the Units and integration can be applied in all cases. If the PDA is being delivered as an entire course it is possible for one holistic assessment to be used for all practical Outcomes. For example Candidates could have a project based on one topic that they use throughout the PDA.

Likewise if the Units are being delivered standalone there are opportunities to integrate the Outcomes. For example it may be pertinent to split the knowledge based assessments up into smaller tasks and assess these after the particular practical assessment has been delivered or achieved.

For each Unit, knowledge is assessed by closed-book, supervised objective assessments. This method adheres to most of the mandatory Units in the HNC and HND Interactive Media and the exam for CIW Web Design Specialist.

The skill based Outcomes are assessed using practical tasks which can be individual or team assessments based on a brief (also generally used in the HNC/D Interactive Media). These should be carried out under supervised and unsupervised conditions. If a team approach is used, each candidate must still achieve all the Evidence Requirements. Assessors are expected to use relevant methods to ensure the authenticity of Candidate evidence.

More specific information on the delivery and assessment for each Unit follows.

Web Site Design: Planning & Design

Outcomes 1 and 2 would be best to be delivered together. This would help to make sense of the knowledge in Outcome 1 with the respective skills in Outcome 2.

Outcome 1 is a closed-book assessment and should take the form of a set of objective questions. This must be carried out under supervised conditions.

Outcome 2 is an open-book practical assessment that should be carried out under supervised and unsupervised conditions.

Outcome 1 could be assessed at the end of the Unit once Candidates have put the knowledge into practice. It could also be broken down into smaller assessments and administered throughout the Unit.

Web Site Design: Multimedia Content Creation

It would be best to deliver the practical skills of Outcomes 2, 3 alongside the knowledge topics of Outcome 1. The Outcomes can be assessed in any order. This should be based on what is best for Candidates. It may be preferable to assess all knowledge at the end of the Unit once Candidates have gained some practical skills and completed the practical assessments, to help consolidate and understand the knowledge elements better.

Outcome 1 is a closed-book assessment and should take the form of a set of objective questions. This must be carried out under supervised conditions. Candidates have 1 hour to complete the assessment. This could be administered as one assessment or broken down into smaller assessments throughout the Unit. In the latter case the amount of time must not exceed 1 hour.

Outcomes 2, 3 and 4 are all open-book practical assessments which should be carried out under supervised and unsupervised conditions. These three Outcomes can be assessed individually or integrated into one holistic assessment. These can be carried out as individual or group assessments. If a group approach is used, each Candidate must still achieve all the minimum Evidence Requirements.

It is recommended that a largely practical approach should be used to deliver this Unit and that candidates are exposed to multimedia creation tools (preferably industry standard) early on. Demonstrations with supporting exercises/labs are expected to be used a lot. Candidates should also be encouraged to practise practical skills beyond the formative exercises. It may be useful if formative exercises are like mini briefs. This would help Candidates get used to working in this manner, particularly if a brief was being used for the assessments.

Candidates have to produce and implement multimedia elements. These can be assessed as a series of smaller individual tasks throughout the Unit. One holistic project based on a brief could be used for these. Candidates are not being assessed on their creative skills but on their ability to use the tools to create content that is acceptable for use on the web. For example for Outcomes 2 and 3 candidates are expected to produce something similar to a simple animated banner advertisement.

Web Site Design: Development Technologies

It is recommended that the Outcomes are delivered in their specified order as the knowledge and skills build on each other. It would be possible to teach Candidates about how to use the tools in Outcome 2 alongside the languages covered in Outcome 3. This may help them to understand the languages better.

As this Unit is largely practical in nature Candidates should be exposed to a lot of demonstrations and formative exercises throughout this Unit.

It is recommended that all the examples given in the Evidence Requirements are taught. Candidates should be encouraged to use as many of the knowledge and skills that they have learned in the Unit and develop these further. By the end of the Unit it is expected that Candidates can clearly demonstrate their knowledge and skills of using the languages at a fundamental level. They can also apply other features beyond those required.

It may be best to start teaching the chosen development tool at the beginning of the Unit then compare this with other tools later on.

There are two assessments for this Unit.

Assessment 1 combines the knowledge of Outcomes 1–3. This is a closed-book assessment and should take the form of a set of objective questions. This must be carried out under supervised conditions. Candidates have 1 hour to complete the assessment. This can be delivered as 1 assessment or split up into smaller assessments. This can be delivered at any suitable point in the Unit. Scenario based questions are encouraged where possible.

Assessment 2 combines the skills of Outcomes 1–3. This is an open-book practical assessment that should be carried out under supervised and unsupervised conditions. Instructions for this assessment should be issued early on in the Unit to give Candidates time to plan the pages. Assessors can provide Candidates with a plan/schedule and design specification, if they haven't created their own as part of another Unit. A database and plug-in content/applet should be provided.

Integration with other Units

In 2009–2010 research was carried out to map CIW Site Design Specialist to existing SQA Units. Of the Units reviewed 9 existing Web Units were identified as having some similarity such as DE10 35 *e-Learning: Production: Website Development*, DV5M 34 *Web Design: An Introduction*, F1YY 34 *Web Development Essential Content* and F200 34 *Web Development Complex Content*. There are also a number of mandatory and optional Units that the PDA Web Site Design can be integrated with in the HNC/HND Interactive Media such as:

- ◆ F1VV 34 *User Interface Design*
- ◆ F6BW 35 *Interactive Media: Planning*.
- ◆ F1YX 34 *Digital Imaging: Bitmap & Vector*
- ◆ DF64 34 *Multimedia Computing: Animation 1*

Full details can be found in Appendix 2 — Units for Cross Assessment/delivery.

This is particularly useful since there is no mandatory Web design/development Unit in either of these Group Awards.

The PDA in Web Site Design can be delivered as part of a full-time course, part-time, flexible and open learning. Open learning Candidates would have to make arrangements with their Centre to have the required knowledge assessments supervised.

Opportunities exist for e-assessment and e-learning for all Units. Knowledge based assessments could be done using e-assessment such as SOLAR and e-portfolios could be used for practical assessments whether in part or in full. E-learning can also be used using a variety of typical resources including SQAs e-learning site, which is also good for cross delivery with other Units and CIWs online materials for *Web Design Specialist*.

6.3 Open learning

The PDA in Web Site Design and Units are suitable for open and distance learning. Teaching and learning could be carried out using suitable e-learning tools, any relevant SQA e-learning sites, relevant COLEG packs, telephone contact and pre-arranged meetings.

The authentication of a candidates' work is the responsibility of each centre. Arrangements for knowledge based assessments will have to be made so that they can be supervised. Candidates could either do this at the centre or another SQA approved centre that is more convenient for them. Further advice from SQA would be required in this case. Authentication of practical skills could be done through an interview online or on the phone or Candidates could supply video evidence.

7 General information for candidates

The PDA in Web Site Design focuses on how to manage the Web site development process, the role of the Web designer, site design from several perspectives such as users and clients, business goals, content creation, developing Web pages using client and server technologies, publishing and marketing a Web site. The end result is that you have produced prototype Web pages for inclusion in your portfolio. The three Units focus on particular areas and tasks of the development process at an introductory level.

The PDA is based on the CIW (Certified Internet Web Professional) *Web Design Specialist* qualification. If you achieve the CIW qualification you can be automatically credited for the PDA providing you have the relevant proof from CIW.

There are three Units:

- 1 *Web Site Design: Planning & Design.*
- 2 *Web Site Design: Multimedia Content Creation.*
- 3 *Web Site Design: Development Technologies.*

These are largely practical subjects supported by at least one knowledge based Outcome. Where possible you will be exposed to industry standard tools to design and develop Web pages for your portfolio. You should have experience of using a computer, some knowledge of Web sites and preferably have experience or qualifications at a minimum of SCQF level 5 or 6.

Assessments for practical skills are project based and can be carried out individually or as a team. One holistic project could be used across the 3 Units. Knowledge is assessed using closed-book, objective assessments that are carried out under supervised conditions.

Opportunities exist to develop the Core Skills of *Communication*, *Problem Solving*, *Working in a Project Team* and *Information and Communication Technology* at SCQF level 6.

You must achieve all three Units to achieve the PDA in Web Site Design.

Web Site Design: Planning & Design

This covers how Web sites are developed as managed projects and the fundamental aspects of planning and designing a Web site.

Topics focus on how the Web differs from other media e.g lean back and lean forward technologies, usability, accessibility, interface design principles, effective navigation, browser differences, different user requirements, client expectations, legal issues and SEO (Search Engine Optimisation) and marketing. To summarise the Unit deals with the various factors that have to be considered before starting to build a site.

Web Site Design: Multimedia Content Creation

This covers some of the key factors to be considered when incorporating multimedia such as graphics, animation and plug-ins into a Web site. Most of the Unit focuses on creating basic graphics and animation and how to apply certain multimedia file formats using links and plug-ins.

You will be taught about how multimedia should be used and how to produce a simple animation, graphic and edit an image and how to apply these and other plug-in files such as PDFs and Java Applets to Web page's.

Web Site Design: Development Technologies

This Unit deals with some of the core client-side and server-side languages, technologies and tools required to create and publish Web sites. This includes securing and maintaining Web sites and Web servers. You will focus on these factors to produce and publish a website or series of Web pages to add to their portfolio.

Topics focus on the evolution of Mark-up for the Web, HTML, XHTML, XML, styling pages, using different types of development tools, client-side scripting eg form validation, server-side scripting and the fundamentals of databases, publishing sites and managing and securing Web servers.

Progression pathways

This PDA provides progression to the PDA Web Development and helps towards progressing to HNC Interactive Media and HND 1st year Interactive Media (providing other entry qualifications are met). This can also help to progress to degree programs.

8 General information for centres

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

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* (www.sqa.org.uk).

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 HN credit is equivalent to 8 SCQF credit points. This applies to all HN Units, irrespective of their level.

SCQF levels: The SCQF covers 12 levels of learning. HN Units will normally be at levels 6–9. Graded Units will be at level 7 and 8.

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

Graded Unit: Graded Units assess candidates' ability to integrate what they have learned while working towards the Units of the Group Award. Their purpose is to add value to the Group Award, making it more than the sum of its parts, and to encourage candidates to retain and adapt their skills and knowledge.

Dedicated Unit to cover Core Skills: This is a non-subject Unit that is written to cover one or more particular Core Skills.

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 HNC/HND 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 HNCs and HNDs are those developments or revisions undertaken by a group of centres in partnership with SQA.

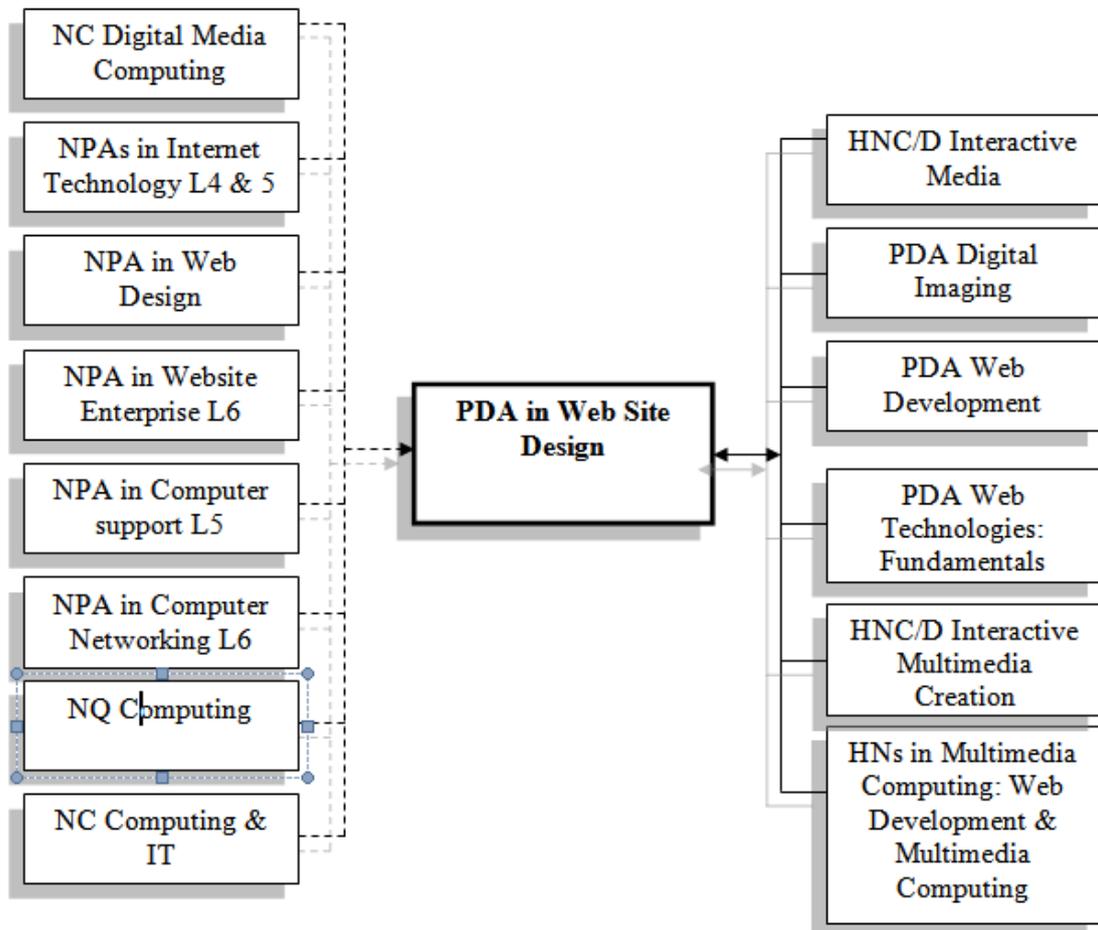
Specialist single centre and specialist collaborative devised HNCs and HNDs are those developments or revisions led by a single centre or small group of centres who provide knowledge and skills in a specialist area. Like consortium-devised HNCs and HNDs, these developments or revisions will also be supported by SQA.

10 Appendices

Appendix 1: Links to other awards

Appendix 2: Units for Cross Assessment/delivery

Appendix 1: Links to other awards



Appendix 2: Units for Cross Assessment/delivery

FW5C 34 Web Site Design: Planning & Design cross assessment/delivery opportunities with other Units

Outcome 1

Elements of this can be cross assessed with Outcome 1 of F1VV 34 *User Interface Design*. If candidates have already achieved that Unit and Outcome they will have passed this element of Outcome 1 already.

Outcome 2

Can be delivered with the other Units of the PDA Web Site Design. It can be cross assessed with Outcome 3 of F1VV 34 *User Interface Design* and all Outcomes of F6BW 35 *Interactive Media: Planning*. Some of the Evidence Requirements for this Unit are more specific than these two Units. Outcome 3 of IM Planning covers a lot more about testing. If candidates have already achieved either of these Units to plan and design a website they will have passed most of Outcome 2.

This Outcome could also be used as a basis for F6BV 35 *Human Computer Interface* and F6BW 35 *Interactive Media Composition* or similar types of Units. There are a number of other Web development Units that this Unit may be delivered with. These are listed in the order of most relevance:

F1YY 34	Web Development Essential Content
F200 34	Web Development Complex Content
DF60 35	* Internet: Web Development
D76P 35	Software Development: Developing for the World Wide Web
DH32 35	* Software Development: Developing for the World Wide
F6C2 35	Web Development: Dynamically Generated Content
F6C4 35	Web Development: Producing a Data Driven Website
DE10 35	* e-Learning: Production: Website Development
DV5M 34	* Web Design: An Introduction

FW5D 34 Web Site Design: Multimedia Content Creation cross assessment/delivery opportunities with other Units

There are some similarities between this Unit and others in the SQA curriculum particularly those in the HNC/HND Interactive Media framework. The closest are as follows (the Units are mandatory unless otherwise stated):

Cross delivery/assessment Opportunities		
Outcome	Code	Unit & Outcome(s)
1	F1VV 34	User Interface Design Outcome 1 *
	F1YX 34	Digital Imaging: Bitmap & Vector Outcome 1*
	DF64 34	Multimedia Computing: Animation 1 (O) Outcome 1*
2	F1YX 34	Digital Imaging: Bitmap & Vector Outcome 2. There are only a few differences
	F1VV 34	User Interface Design Outcome 3 for creating a prototype
3	DF64 34	Multimedia Computing: Animation 1 (O) Outcomes 2 and 3. There are only a few differences
4	F200 34	Web Development: Complex Content (O) Outcome 4

(O) — Optional Unit in the HN Interactive Media

*If Candidates have achieved these Units they have also achieved the related Evidence Requirement(s) in this Unit

In addition, if Candidates have achieved any of the following Units they will have covered most if not more than the respective graphics and/or animation elements of this Unit. They would only require to be assessed on the differences.

Code	Unit
F208 34	Digital Imaging: Vector Techniques
F207 34	Digital Imaging: Bitmap Techniques
F6BS 35	Digital Imaging: Advanced Bitmap Techniques
F6BT 35	Digital Imaging: Advanced Vector Techniques
F209 34	2D Animation
DE2N 35	3D Modelling and Animation
DE35 35	2D Digital Imaging and Animation

This Unit could also contribute towards others that require a Web site or interactive media product to be produced such as F1VS 34 *Interactive Media: Planning*, F1VT 34 *Interactive Media: Authoring*, F6BV 35 *Human Computer Interface*, F6BW 35 *Interactive Media Composition* and F6V5 35 *Designing and Developing an Interactive Product*.

Other similar Units not included in the HNC/HND Interactive Media could also be considered.

FW5E 34 Web Site Design: Development Technologies cross assessment/delivery opportunities with other Units

There are some similarities between this Unit and others in the SQA curriculum particularly those in the HNC/HND Interactive Media framework. These are listed in the order of most relevance:

Code	Title	Cross assess/deliver with A99A 99
F1YY 34	Web Development Essential Content	All. This covers less about applications and server side but more about basic page elements and CSS. A good precursor Unit.
F200 34	Web Development Complex Content	All. This has some differences eg planning, CSS media accessing remote sites but not server side technologies.
DF60 35	*Internet: Web Development — Check Outcome 1	All. Outcomes 2–4. Outcome 1 uses a short response instead of object assessment.
D76P 35	Software Development: Developing for the World Wide Web	This is more advanced though some practical elements can be used as a basis.
DH32 35	*Software Development: Developing for the World Wide.	“
F6C2 35	Web Development: Dynamically Generated Content	“
F6C4 35	Web Development: Producing a Data Driven Website	The same as the previous three Units. This is a project with no knowledge based assessment.
DE10 35	*e-Learning: Production: Website Development	Outcome 2. This covers basic web development not CSS or server side technologies. It could be used as a basis. Outcomes 1, 3 and 4 relate to FW5C 34 <i>Website Design: Planning & Design</i> .
DV5M 34	*Web Design: An Introduction	Part of Outcome 1 and all of Outcome 3, which is less complex.

There are differences between these and the Unit. Details of how these exactly map to the Unit can be found in the results of *Mapping to SQA Units, July 2010*.

There are also some opportunities to cross deliver/assess this Unit with elements of Units from HNC/HND Interactive Media such as F1VV 34 *User Interface Design, Interactive Media: Authoring, Designing and Developing an Interactive Media Product*. Any Units that involve developing an application could essentially be considered.