



National Unit Specification: general information

UNIT PC Passport: Working with Artwork and Imaging
(SCQF level 6)

CODE F1FG 12

SUMMARY

This Unit is a mandatory Unit of PC Passport: Advanced but can also be undertaken as a free-standing Unit.

This Unit is designed to develop candidates' skills using a software application package designed to create, modify and layout artwork or images for display in print or on a screen. Packages could include painting, drawing and photo manipulation. Candidates will also acquire skills relating and desktop publishing.

This Unit is appropriate for any candidate who wishes to enhance their IT skills in artwork and imaging.

OUTCOMES

- 1 Describe complex issues relating to creating and manipulating images.
- 2 Create and manipulate a graphic using artwork and imaging software.
- 3 Create a complex document using desktop publishing facilities for a specified brief.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, it would be beneficial if candidates had previous knowledge or experience of the internet and basic IT skills. This may be evidenced by possession of:

Administrative Information

Superclass: CE

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National Unit Specification: general information (cont)

UNIT PC Passport: Working with Artwork and Imaging (SCQF level 6)

- ◆ PC Passport: IT Software — Word Processing and Presenting Information (SCQF level 5)
- ◆ PC Passport: IT Software — Spreadsheets and Databases (SCQF level 5)
- ◆ PC Passport: IT Systems (SCQF level 5)
- ◆ PC Passport: Internet and On-line Communications (SCQF level 5)

or similar qualifications or experience

CREDIT VALUE

0.5 credit at Higher (3 SCQF credit points at SCQF level 6*)

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills in this Unit.

The Unit provides opportunities for candidates to develop aspects of the following Core Skills:

- ◆ Information Technology (SCQF level 6)
- ◆ Problem Solving (SCQF level 6)

These opportunities are highlighted in the Support Notes of this Unit Specification.

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Describe complex issues relating to creating and manipulating images.

Performance Criteria

- (a) Describe file formats and characteristics accurately.
- (b) Describe in detail issues relating to image creation.
- (c) Describe in detail issues relating to image manipulation.
- (d) Describe security risks and current laws and guidelines relating to the use of images accurately.

OUTCOME 2

Create and manipulate a graphic using artwork and imaging software.

Performance Criteria

- (a) Create a graphic using artwork and imaging software.
- (b) Manipulate a graphic using specialised image manipulation tools of artwork and imaging software.
- (c) Add text to a graphic to enhance meaning.
- (d) Manipulate the resolution, colour depth and file format of created graphics.

OUTCOME 3

Create a complex document using desktop publishing facilities for a specified brief.

Performance Criteria

- (a) Create a text document using a desktop publishing package.
- (b) Import images to the text document using a desktop publishing package.
- (c) Manipulate the text and images created to enhance the layout of the document.
- (d) Check the structure, style and formatting are used to ensure the document meets the specified brief and aids meaning in the document.

National Unit Specification: statement of standards (cont)

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required that candidates have achieved all Outcomes and Performance Criteria.

Candidates are encouraged to use the internet in any research, etc however the evidence produced must be the candidate's own words. Assessors should assure themselves of the authenticity of candidate's evidence.

Written and/or oral recorded and product evidence is required which demonstrates that the candidate has achieved the requirements of all of the Outcomes and Performance Criteria.

Written and/or oral recorded evidence is required which demonstrates that the candidate has achieved Outcome 1 to the standard specified in the Outcomes and Performance Criteria. The evidence for this Outcome should be obtained under controlled, supervised conditions. The assessment should be closed-book and last no more than 45 minutes.

The instrument of assessment will provide opportunities for each of the Outcomes to be fulfilled by means of sampling across the range of the content of Outcome 1. Where re-assessment is required, it should contain a different sample from the range of mandatory content of this Unit detailed below. Achievement could be decided using of a cut-off score.

Each sample must include the following:

- ◆ Four issues relating to different file formats from: resolution and colour depth, file characteristics (eg how compression affects the file size and quality of an image), vector and bitmap graphics.
- ◆ Four issues relating to image creation and manipulation from: moving, resizing and cropping, alignment, use of auto shapes, grouping, rotating and flipping an image, effects, multiple layering.
- ◆ Two security risks relating to the use of images. Security risks must include an understanding of user names and passwords, acceptable use policies, firewalls and anti-virus protection
- ◆ Two issues relating to current laws and guidelines such as downloading legal, copyright free, images from various sources eg clipart, CDs, internet, photos, scanner, Copyright, Design and Patents Act.

Product evidence is required which demonstrates that the candidate has achieved Outcomes 2 and 3 to the standard specified in the Outcomes and Performance Criteria. The evidence for these Outcomes must be generated under supervised, open-book conditions. The evidence may be generated over an extended period of time.

National Unit Specification: statement of standards (cont)

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The product evidence will take the form of a portfolio which consists of:

- ◆ Two complex graphics created using artwork and imaging software
- ◆ A complex document which has:
 - been created to combine text and at least two graphics from different sources. The text used should be supplied rather than created
 - an appropriate structure, style and format which meets the specified brief and aids the meaning of the document

The Assessment Support Pack (ASP) for this Unit provides sample assessment materials including assessor checklists, practical tasks and an instrument of assessment for the knowledge and understanding of Outcome 1. Centres wishing to develop their own assessments should refer to the Assessment Support Pack to ensure a comparable standard.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 20 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit may be delivered as a stand-alone Unit or in combination with other Units as part of a group of Units making up an award, eg PC Passport: Advanced.

This Unit maps to the National Occupational Standards (NOS) for IT Users, as specified by the Sector Skills Council (e-Skills UK). This Unit includes full content coverage of level 3 Areas of Competence in the following areas of NOS:

- ◆ Artwork and Imaging

Full assessment coverage of NOS is detailed in the Assessment Support Pack for this Unit. Further information regarding NOS can be found at www.e-skills.com.

Outcome 1

This Outcome relates to the complex issues candidates should understand in order to create and manipulate images.

Candidates will develop an understanding and accurately describe file formats and characteristics. File formats should include: JPEG, GIF, BMP and PNG. Characteristics should include a description of each along with the effect of compression on their size and quality. Candidates should also be aware of the differences between vector and bitmap graphics.

Candidates are required to accurately describe image manipulation eg moving, resizing and cropping, alignment, use of auto shapes, grouping, rotating and flipping an image, effects, multiple layering.

Candidates should be aware of security and legal issues and to accurately describe the security risks and current laws/guidelines relating to the use of images. Security risks should include an understanding of user names and passwords, acceptable use policies, firewalls and anti-virus protection. Laws and guidelines include The Copyright, Design and Patents Act with respect to downloading of pictures from the internet, CD or DVD.

National Unit Specification: support notes (cont)

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Outcome 2

This Outcome relates to using artwork and imaging software to create and manipulate graphics.

Complex tasks are those required at a level expected of someone who might be regarded as an expert in the context of the workplace or other suitable environment. A complex image will include any of the following:

- ◆ Resize image (scale)
- ◆ Move image
- ◆ Copy image
- ◆ Crop image
- ◆ Align image
- ◆ Using autoshapes (or similar)
- ◆ Rotate/flip image
- ◆ Grouping/ungrouping shapes
- ◆ Add text to an image
- ◆ Special text effects (text/art effect, shadows to text box)
- ◆ Three dimensional (3D) objects and tracing
- ◆ Distort
- ◆ Effects
- ◆ Colour balance
- ◆ Levels, layers and curves (for different elements eg background, picture and text)
- ◆ Masks
- ◆ Bleeds and crossovers
- ◆ Changing the resolution, colour depth and file format

The range of features will be image dependent, however, at this level a candidate would be expected to be able to use all of the above.

Candidates are required to create an image using image creation features. Candidates are expected to create an image within an acceptable period of time and without too many attempts.

Candidates are required to use specialised image creation features, as listed above, efficiently and effectively. The features do not need to be applied to every image created but candidates must know how to apply each feature. Candidates should also be able to change the resolution, colour depth and file format of images to suit different uses.

Outcome 3

This Outcome relates to using desktop publishing facilities to create a complex document.

Complex tasks are those required at a level expected of someone who might be regarded as an expert in the context of the workplace or other suitable environment.

National Unit Specification: support notes (cont)

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Candidates are required to create a text document using a desktop publishing package efficiently and effectively. Candidates should be skilled with setting up the text part of a desktop published document using the text facilities:

- ◆ Formatting
- ◆ Text flow, linking text, columns
- ◆ Frames
- ◆ Style sheets
- ◆ Templates and layout grids
- ◆ Insert images from Clipart, CDs, DVDs, internet, photos or scanned in using copy and past, insert and use of picture boxes
- ◆ Manipulate the text and images created to enhance the layout of the document using text wrap

The candidate will add images to a text document using a desktop publishing package efficiently and effectively. This should include copy and paste, insert and use of picture boxes. Images can be inserted from a suitable source such as clipart, CDs, DVDs, internet, photos or scanned in.

Image creation and manipulation can use a substantial amount of system resources, particularly memory. The candidate is expected to cope with any unexpected complications that may occur when trying to insert images, eg 'Not enough Memory'.

Candidates are required to manipulate the text and images created to enhance the layout of the document. This means that they should be able to use desktop publishing features to enhance the layout of their document, for example, they should be able to use text flow to allow text to flow from one column to the next, or text wrap so that lines of text wrap around an image. The candidate should be able to perform these functions without assistance. They are also expected to complete the prescribed range of activities within an acceptable period of time and without too many attempts.

On completion of the document candidates are required to check that the structure, style and formatting are used to aid meaning in the document. This means that the candidate should be able to look at their created document and decide if the layout is appropriate or not and if not, amend it accordingly. This Performance Criteria involves personal judgement but candidates should be encouraged to look at obvious points. For example, spelling, use of capital letters, correct punctuation, grammar, size of text, fonts and styles used, layout and size of images, etc.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

A practical, hands-on approach to learning should be adopted. The emphasis should be on experiential learning. Terminology and underpinning knowledge should be introduced in a practical context.

National Unit Specification: support notes (cont)

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The actual distribution of time between Outcomes is at the discretion of the centre. However, the following is suggested:

Outcome 1	6 hours
Outcome 2	7 hours
Outcome 3	7 hours

The allocated timings allow for assessment and re-assessment where required.

Throughout this Unit, candidate activities should relate to their personal or vocational interests. For example, candidates should be permitted to create desktop published documents which reflect their interests rather than documents prescribed by their assessor.

Their choice of content should be genuine (rather than contrived) and seek to create valid documents on a topic of genuine interest to the candidate.

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

This Unit involves candidates:

- ◆ Using a range of IT which may provide an opportunity to gather evidence towards aspects of the IT Core Skill
- ◆ Checking and evaluating their final product which may provide an opportunity to gather evidence towards aspects of the Problem Solving Core Skill

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

It may be appropriate for some of the evidence for this Unit to be produced using e-assessment provided the national standard is applied and the conditions of assessment are consistent for all candidates. This may take the form of e-testing (for knowledge and understanding) and/or e-portfolios (for practical abilities).

If a centre is presenting Outcome 1 online the following assessment methods, where appropriate, may be selected:

- ◆ Multiple choice
- ◆ Drag and drop
- ◆ Multiple response
- ◆ Mix and match
- ◆ a combination of the above

It is expected that the questions will be of the multiple-choice variety. Centres may consider the use of alternative questions types, particularly if using Computer Assisted Assessment approaches. However, care should be taken that the questions are valid and at an appropriate level. The use of simple true/false question responses is unlikely to achieve this.

National Unit Specification: support notes (cont)

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For Outcome 1 a suitable assessment would be an objective test which demonstrates that the candidate has the required knowledge. The evidence for this Outcome should be obtained under controlled, supervised conditions. The assessment should be closed-book. Achievement could be decided using a cut-off score. The possibility may arise where these questions are taken as an online assessment.

The Evidence Requirements for Outcomes 2 and 3 may be generated by a number of small assessment tasks or as one larger task covering both Outcomes.

Evidence of practical competence could be stored in a portfolio. This may be in the form of an e-portfolio.

If this Unit is undertaken in the workplace there may be opportunities for candidates to gather evidence in day to day workplace activities.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

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 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)*.

National Unit Specification: support notes (cont)

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History of changes:

Version	Description of change	Date
02	Evidence Requirements clarified and/or details of NOS mapping inserted	10/08/2010