Guidance on Using E-portfolios

Publication Date: March 2012

Publication Code:

Published by the Scottish Qualifications Authority
The Optima Building, 58 Robertson Street, Glasgow G2 8DQ
Lowden, 24 Wester Shawfair, Dalkeith, EH22 1FD

www.sqa.org.uk

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Monitoring progress 20
Web links 20
Access for other providers 20
Cross-referencing evidence 20
Security and authentication 21
Internal verification 21
External Verification (including e-verification) 22

Part 3: SQA Guidance on e-Portfolios for Assessment 23

e-Portfolio forms and shells: learner and assessor records 23

Candidate Guidance on e-Portfolios 24
What it is 24
What’s in it 24
What’s involved 24
Getting started 25
Introduction

E-portfolios are useful for many purposes, including support for learning, presentation and assessment. We at SQA are keen to encourage the use of e-portfolios and e-portfolio approaches in the delivery and assessment of our qualifications.

This resource will give you advice about good practice, and highlights some of the things you’ll need to take into account when you’re supporting learners as they create e-portfolios for SQA qualifications.

Organisation of the guide

We’ve organised the guidance in three parts:

Part 1: Guiding learners focuses on the structure and content of e-portfolios. The intention is to enable centres to pass advice on to learners, including advice on ways to authenticate their work. You can either extract areas of the guidance to give to learners directly, or contextualise it to the particular e-portfolio systems your learners are using.

Part 2: Assessment and verification provides additional advice on requirements and good practice in the assessment and verification of e-portfolios, and highlights some of the ways in which e-portfolios can be used to enhance these processes.

Part 3: Exemplar e-portfolio forms provides examples of e-portfolio forms and templates which could be useful for demonstrating good practice in using e-portfolios for assessment.

If you’re already using e-portfolios, you may be familiar with some of the issues discussed in this resource. Generally, it should be of interest to:

♦ Those who are planning to use e-portfolios, and may have ‘dipped toes in the water’
♦ Those who are using a particular e-portfolio but have no experience of other systems
♦ Those with a good range of experience, but who may benefit from reviewing good practice in what is still an emerging field.

Requirements for e-portfolios

We’ve also published Requirements for e-portfolios. This gives general criteria for what makes a good quality e-portfolio for SQA qualifications. It includes criteria on Accessibility and Interoperability — if you’re using e-portfolios for SQA qualifications, you should ensure that the systems you use can support learners with additional assessment requirements and that learners have opportunities to access their e-portfolio work once they have completed their qualification.
Part 1: Structure and content

E-portfolios as an assessment method
E-portfolios are, in principle, the same as conventional portfolios, but they have additional benefits:

♦ They allow different types of electronic evidence to be used for assessment in its original format.
♦ They offer an assessment approach that’s inherently ‘learner-centred’, enabling the benefits of paper portfolios to be realised, while removing some of the disadvantages (eg bulk; storage; duplicating material for different purposes).
♦ They offer more flexibility in that learners can assemble one portfolio and tailor it to specific audiences by tagging items for different purposes (including different assessments).
♦ They allow evidence to be stored in manner that’s more secure and more accessible to learners, Assessors and Verifiers.
♦ They make it easier for Assessors to give feedback, which strengthens the links between formative and summative assessment, and between learning and assessment generally.

Differences in approach for e-portfolios and paper
The electronic format, however, does mean that e-portfolios need to be handled in a slightly different way to traditional portfolios, because:

♦ It isn’t as easy to ‘flick through’ an e-portfolio and remove evidence items to compare them (ie with other items and with the qualification requirements). This means we need to ensure that evidence is clearly signposted and hyperlinked to the relevant qualification standards. E-portfolio tools allow us to do that.
♦ Although quality assurance processes (assessment, verification, authentication, security) are the same as they are with paper portfolios, we need to ensure that we can access evidence of these processes within the online e-portfolio environment. E-portfolio technology allows us to do this, and it can also be used to support these processes and to allow us to do some of them in different ways (e-verification etc).

SQA and e-portfolios
We know that centres and education authorities offering SQA qualifications use different approaches to e-portfolios, including:

♦ open source VLEs (such as Moodle), used to store, manage and assess evidence
♦ open source e-portfolios (such as Mahara)
♦ commercially-designed products, off-the-shelf or designed to meet centres’ requirements
♦ blogging tools and social software, used together to create e-portfolio functionality
♦ presentational software, or webpages, used to create e-portfolio functionality
- the SQA DeskSpace e-portfolio (for Skills for Work qualifications and the Scottish Baccalaureate)

SQA will work with whichever system centres choose to use. Our e-portfolio requirements provide guidance on choosing a system; we use these to endorse some products.

Although we don’t specify any one e-portfolio approach, to be suitable for use in assessment, e-portfolios have to allow learners to store and present their evidence in a structured way that makes it easy to locate the evidence and compare it with the requirements of the qualification.

For quality assurance, the e-portfolio approaches also need to contain, or link to, information to show:

- authentication of the learner’s work
- evidence of the assessment process, such as how assessment and marking are handled
- evidence of the internal verification process
- recording of assessment results

There’s more discussion on these issues in Part 2.

Guiding learners

Learners intending to use e-portfolios should be given as much guidance as possible. You should encourage them to start building their e-portfolios early in their course or training programme, so the e-portfolio can be integrated with learning and assessment from the outset. They may need time to learn to use the e-portfolio, and the other digital tools they need to create and gather evidence, so planning should begin earlier than would be the case with a paper portfolio. It’s also advisable to let learners see examples of completed, good quality e-portfolios at an early stage, to show what’s attainable and suitable.

Encouraging best use of the e-portfolio

An e-portfolio can support assessment, not only by storing evidence, but also as a way of generating evidence and showing that assessment has taken place.

The evidence learners collect could be generated from a wide range of locations: from training, employment, education and social and personal environments. An e-portfolio can be used to create and gather this evidence. For example, a blog tool could be used to create Reflective Accounts, or a meeting tool could be used to generate Witness Testimonies.

A general piece of advice for learners is that the e-portfolio shouldn’t simply replicate a paper portfolio. They shouldn’t try to create the type and amount of evidence that they might develop for a paper portfolio — for example they shouldn’t be completing a lot of work on paper and scanning this to their e-portfolio. They should be encouraged to maximise opportunities to create digital evidence and then use the technology to store, link and integrate it to best demonstrate their achievements. Some learners will need support to do this.
Learner-centred approach

With e-portfolios, learners have the opportunity to take ownership of their work — for development of their work, and for assembling the e-portfolios themselves.

If they’re new to the system they may need some support with this in the beginning. Assessors will be familiar with the requirements of the SQA Units the learners are aiming to achieve, so will be able to direct them in ways of creating and gathering appropriate evidence. Some of the evidence needed could involve them working on their own, and other materials could require them to undertake activities that will be observed by others.

It’s advisable for Assessors to meet learners regularly (face-to-face or other) to review the e-portfolio contents and the learner’s progress. Assessors may provide help as learners draft their work, but candidates working towards a qualification should meet the assessment criteria independently.

Learners should be advised against repeatedly returning to previously-produced evidence, to continue to improve items. Some re-working is to be expected, but there must be a stage where there’s sufficient completed evidence to submit for assessment. This can often be tackled by encouraging learners to begin their e-portfolio evidence for Outcomes and areas where they feel confident.

If too much of the e-portfolio work is left open, the internal verification process, including sampling of evidence, won’t be effective. Internal and external verification should make allowances for the fact that earlier work produced by a learner may reflect their inexperience.

E-portfolio contents

The learner’s full e-portfolio could contain all the materials they have created or gathered. This is often known as a working e-portfolio. However, it’s important to remind learners that, to achieve a qualification, the e-portfolio they submit for assessment should contain the items that clearly recognise and record their achievement.

Evidence for assessment could include:

♦ written notes, letters or reports — based on surveys, experiments, investigations
♦ entries from the learner’s blog
♦ photographs, and scanned documents - pictures, posters, maps, graphs, diagrams
♦ narratives recording reflective accounts, witness testimonies, assessor observations and other commentaries, discussions and interviews that are relevant to the Learner’s work or evidence — presented as written or audio/video records
♦ online presentations showing images and providing information about the learner’s work — products, displays, events, exhibitions
♦ records of the learner’s contributions to electronic forums and social networking sites
♦ online questionnaires or surveys the learner has used, with summaries of the responses
♦ links to other websites and resources relevant to the learner’s work
♦ audio or video clips of learners carrying out assessment-related activity
♦ formal feedback from Assessors on summative assessments activities
E-portfolios for assessment should also include, or link to:

♦ assessment plans for Units
♦ Unit checklists/summaries
♦ records of progress — Units achieved

External Verifiers would also expect to see comments from Assessors about the judgements made on learners’ evidence. Ideally, this would include positive feedback and comments on areas the learner needs to develop further.

Additional items in the learner’s working e-portfolio (but not necessarily required for assessment) could include:

♦ Notes of informal discussions between the Assessor and the learner
♦ Feedback from Assessors on informal (formative) assessments
♦ Information from self or peer assessments
♦ Drafts of items of evidence
♦ Evidence and materials for activities the learner’s currently working on, or has completed but not yet matched to Unit requirements
♦ Goal setting/planning records for learning activities
♦ Informal learner comments/observations – written or recorded
♦ Learning Plans

E-portfolio technology allows learners to draw on this wide range of items and assemble e-portfolios for specific purposes. They could, for example, create one e-portfolio for formative assessment and then select a different set of items to create an e-portfolio for summative assessment. See the section on Selection for more advice about this.

Authentication

Before considering how learners might compile their evidence for assessment, it’s worth thinking about authentication. The need to show that assessment evidence is genuinely the learner’s own is the same whether the evidence is in a paper portfolio or an e-portfolio. It’s the centre’s responsibility to ensure that authentication takes place and to advise learners on potential ways for them to authenticate their work.

In some cases, this will be straightforward. Assessors may observe learners carrying out activities and know that the evidence relating to those is the learners’ own work. If the evidence was produced without supervision, especially if created using the internet, centres may need to confirm with learners that the evidence was produced by them. However, as with traditional portfolios, Assessors should be familiar with learners and their level and pattern of work, and should be able to spot anything unusual with the evidence.

If you do need to check on the authenticity of evidence, questioning learners on their work may suffice. If there’s doubt, however, you should take further steps to confirm that learners have not received assistance from others or plagiarised the work of others. This is necessary to ensure malpractice doesn’t occur.
Authentication strategies
Your centre should have authentication strategies in place. Good practice suggests that these should incorporate processes to:

♦ Advise learners to ensure they are clear about how to access resources, especially from the internet, how to reference the material they use, and the extent to which they may confer with others or seek support as they create their e-portfolios.
♦ Provide learners with electronic signatures, and require them to warrant that their work is their own by signing it as they upload it to their e-portfolios for assessment.
♦ Require both Assessors and learners to sign and date any scanned evidence.

Centres could also employ some of the following tools and approaches in their authentication strategies:

♦ Discussion with the learner — this could be recorded and could be a formal part of the Assessor or Internal Verifier role in your centre.
♦ Asking learners to provide a presentation on their work, followed by questioning.
♦ Arranging with learners to monitor their blogs.
♦ Using various ‘statements’ to corroborate evidence — Peer Reports, Witness Testimonies, learners’ own Reflective Accounts — possibly also with supporting evidence, such as photographs.
♦ Introducing supervised ‘write-ups’ of elements of written work.
♦ Using electronic tools, such as anti-plagiarism software.
♦ Keeping authentication records for each learner — noting the various approaches and activities used for authentication during the period of learning or training.

Combinations of these approaches could be planned, and you could use different elements before and during assessment.

Decisions on when and how often learners sign work (ie only for scanned items, or when evidence is submitted for assessment, or when Unit attainment has been achieved) will depend on the qualification in question and your centre’s assessment and authentication strategies.

As a general rule, External Verifiers will expect to find that assessment evidence has been uploaded for assessment by learners themselves. Some learners may need help with this, and there are e-portfolio systems that allow Assessors to upload learner evidence. However, it’s preferable to help learners to do this than to do it for them.

Compiling evidence
Some learners won’t need much guidance in how to compile e-portfolio evidence for assessment; others will benefit from help. Learners may find it helpful to think of the process as involving different stages; collection, selection, reflection and connection.
Collection

As with a paper portfolio, the first stage of compiling an e-portfolio for a qualification is about the learner creating and gathering evidence that might demonstrate their attainment of the skills and knowledge required for the qualification. Some learners may not be accustomed to saving and documenting their work. You should encourage them to do this as they progress through the course or training period.

Learners should have had opportunities to discuss the qualification already, and possibly develop Assessment Plans for Units, so they should have an idea of whether they already have some of the necessary evidence. This may have come from their day-to-day work or studies or other activities. They should also know about new evidence they need to create or gather for specific Outcomes and Units.

It's good practice to advise learners at this stage that, when they do produce new evidence, they should look across all the Evidence Requirements in the qualification and try to generate evidence that will integrate across different areas, where possible. This will reduce the amount of assessment overall.

Learners should be provided with guidance at this stage on where and how to keep work that might eventually form part of their e-portfolio. If you can agree on how this will be organised it should make things easier at the next stage, when the learner begins to choose items to include in their assessment e-portfolio. Consider, for example:

♦ Should the learner keep drafts or only finished work?
♦ If draft work is kept, should it be kept separately from finished work?
♦ Should the learner keep everything or only best work?
♦ Does the learner need to create separate sections / file areas for storing work from different topics / subjects?
♦ Will the e-portfolio host all of the learner’s assessment evidence - if not, where and how will other items be stored and accessed for assessment and verification?
♦ Should the collection be ordered chronologically?
♦ How often will you and the learner review the e-portfolio contents?

Selection

In the second stage of compiling an e-portfolio for assessment, learners need to go through their work and begin to select (or reject) the items they will present as evidence. As they do this, it’s important they understand the role and importance of the selected items, and the e-portfolio generally, in terms of meeting the evidence requirements of the Units. Many learners will be confident enough to choose the items that best meet each Outcome / Unit requirements, but for other learners you may need to highlight potential items to start them off in this process.

The exact mix of items to be included will differ from learner to learner; each person’s e-portfolio will be different — some learners will submit a lot of evidence while others submit less. This also happens with traditional paper portfolios.

If you haven’t already agreed with the learner how the selection process will work, this is the time to do so. The discussion should include whether the learner is aiming to show mainly
their best work, which is likely to be final products, or also aiming to show progression in their learning, exemplified by drafts and re-worked pieces.

E-portfolios for assessment should ideally include some final products of work, but the collections could also include drafts and unfinished pieces, including tasks that were completed at different stages, perhaps showing less and less support from teachers/tutors or Assessors at each stage. All of this can be valuable for authenticating the e-portfolio. Likewise the e-portfolio needn’t only include the learner’s very best work; the key thing is that the collection contains sufficient appropriate evidence for the qualification.

Once the learner has begun the process of selecting from existing items, they can focus on activities needed to generate new evidence to complete the e-portfolio.

Reflection

Evidence of reflection is not mandatory in an e-portfolio for assessment, but reflection is important in showing that the learner is aware of how the evidence meets the standards required.

Reflection is also important for learning and development generally. It encourages learners to observe their achievements, consider where improvements could be made, take ownership of their learning and participate more actively in the assessment process. Evidence of learners’ reflections is also very useful for contributing to the authentication of items in the e-portfolio. Reflective evidence is generally written, and e-portfolios may provide tools specifically to log these items, but they could also be uploaded as audio/video recordings.

Connection

The Connection process follows on from Reflection. As learners focus on items of evidence, and the skills and knowledge they used to produce them, they should be able to connect these to the requirements of the qualification. Some learners may need help with this.

Once learners are happy with their e-portfolios, they should be encouraged to think about how they’ll present them for assessment, ie by simply submitting the e-portfolios online or actively presenting them, or sections of them, in online or face-to-face environments. Learners should also be reminded that, once assessed, their e-portfolios will be checked by Internal Verifiers and possibly by External Verifiers. Finally they should be encouraged to maintain their e-portfolios as they continue to work through their qualification.

There’s Candidate Guidance on e-Portfolios in Part 3 of this Guidance which you may find useful for giving to learners.

E-Portfolio Contents

Learners should be encouraged to structure their e-portfolios in a clear and logical fashion and to include certain items within the contents. In Exemplar e-Portfolio Forms you’ll find
templates for the following items, but e-portfolio tools often allow learners to generate these pages automatically within the e-portfolio structure.

**e-Portfolio Opening Page**

Before creating an Introduction for their e-portfolios, learners may wish to design an opening page that gives information such as their name and the title and level of the qualification they hope to gain. They could also add a photograph or image, and a brief statement explaining the purpose of the e-portfolio. Here’s an example:

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e-Portfolio demonstrating skills and knowledge for Cake Decorating

Unit D9GL 11 - Intermediate 11

David Wilson

This e-portfolio demonstrates work I’ve completed to gain an SQA Unit in Cake Decorating. I’ve been working on the Unit for six months and the e-portfolio shows my progress. If I’m successful in achieving the Unit I hope to go on to take the other Units for the Intermediate 2 qualification in Creative Cake Production.
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**Table of Contents**

A well-structured e-portfolio will have some way of summarising the e-portfolio contents and showing how it’s structured. Many learners use a contents page for this. The **Table of Contents** template provides an example, showing items a learner might typically include in an e-portfolio that’s designed to be assessed. Ideally, items in the contents page will hyperlink to the relevant areas of the e-portfolio.

**e-Portfolio Introduction**

An e-Portfolio Introduction provides the reader with information they need about the learner. It should include their name, the title of the qualification they’re working towards, their job title (if they’re employed) and details of the centre through which they’re taking the qualification. It’s good practice to also include names(s) of their Assessor(s), and any others who may be helping with the qualification, and a list of the Units the learner’s submitting for assessment. There’s an **e-Portfolio Introduction** template in Exemplar e-Portfolio Forms.
Personal Profile

In an e-portfolio the Personal Profile provides information about the learner that’s relevant to the qualification they’re aiming to achieve. It can be a written statement — if the learner wishes to create one of those there’s a **Personal Profile** template for this.

The Personal Profile might include details of the learner’s job description and information about their employer, such as a company tree or organogram, and where the learner is located in this. If the learner is in training or studying, the Personal Profile could provide details of their school, college or training provider, and more information about their training programme or course.

Learners may also want to say something about their interests, hobbies or voluntary work. Most e-portfolio systems offer a CV function, which would be ideal for creating the Personal Profile. Here’s an example of the CV function in the SQA Deskspace e-portfolio, and an excerpt from a CV published as a webpage using that system:
Information about the Qualification

To assess portfolios, both traditional and electronic, Assessors and Verifiers need access to information about the qualification the portfolio is designed to address. Learners should be encouraged to upload, or include a link to, a summary of each Unit they hope to attain, including Outcomes (with Performance Criteria or Assessment Criteria, where these exist) and Evidence Requirements. Some e-portfolios may have this information already uploaded, and will provide tools to allow the learner to link their evidence automatically to the qualification requirements. Where e-portfolios do not use this approach, learners may wish to use the Information about the Qualification template to capture Unit information and hyperlink it to the areas of the e-portfolio where they'll store evidence for each Unit.

Assessment Plan

In the section on Guiding Learners we suggested that learners should work with their Assessors to develop Assessment Plans, one for each Unit they aim to achieve, and include these in their e-portfolios.

Assessment Plans simply set out the agreed assessment activities for each Outcome and/or the Unit as a whole. They could include details of assessment conditions, of who will be involved in the assessment, and of any equipment and resources needed. There’s a template in Exemplar e-Portfolio Forms, but e-portfolio systems may have in-built planning tools, which might be a better way of developing Assessment Plans. Here’s an excerpt from one created in the Deskspace e-portfolio, using a SWOT analysis format and showing the learner’s reflection on the preparation he needs to do to prepare for assessment.
Record of Progress

The Record of Progress should show the date that the candidate completed each Unit and submitted it for assessment. It should be signed by the learner and the Assessor, and may also allow space for Internal and External Verifiers to sign the record. There’s a template in Exemplar e-Portfolio Forms, though e-portfolio systems often have ways to record this information automatically.

Index of Evidence

E-portfolios need to have some way of indexing items of evidence, linking them to information on the assessment activity they arose from, and relating them to the Units and Outcomes. There may be tools for organising evidence this way in e-portfolio products. If not, learners should be guided on how to do this. We’ve included an Index of Evidence template as an example.

It’s also a good idea to advise learners to label evidence items in a way that describes the items and their purpose, making them easier to locate within in a long list of Reflective Accounts, or Blog entries, or Forum posts or Photographs etc. For example, a blog item for Outcome 3 might be Reflection on cake finishings (O3), or a photograph for Outcome 2 could be Demonstration of cake fillings & coatings (O2).

Where items of evidence cover more than one assessment activity or Outcome, this should be made apparent in the Index. If an item isn’t stored in the learner’s e-portfolio, the Index should provide a link to its location, or to information on where it’s being stored. You may
also wish to use the Index to indicate which items have been assessed and verified, by whom and when.

**Items of Evidence**

When Assessors and Verifiers are considering e-portfolios, and looking for individual items of evidence, it’s helpful if the evidence is organised in logical areas, such as Sections for the Outcomes of the qualification Units. It’s also helpful if evidence items in each Section are located with, or hyperlinked to, *Information on the Qualification*, ie the Outcomes and Evidence Requirements that are relevant to the items.

Some e-portfolios will have in-built tools for organising and storing evidence, especially those originally designed for capturing evidence for Vocational Qualifications and matching it to occupational or qualification standards. Some of these products also use matrices to automatically link evidence to the qualification areas. Other products, such as those developed initially to support learning and development, or e-portfolio approaches adapted from VLE or social software products, may not have this structure in place. Learners using these approaches should be encouraged to think about how they’ll use their e-portfolio to store and present their evidence for assessment.

There’s a template in *Exemplar e-Portfolio Forms* for *Presenting evidence for assessment* for an Outcome, and we’ve included a completed example below. Learners don’t have to use this approach, but should find some way to link evidence to Outcomes and Units and to make connections to other relevant items of evidence. The template and example include *Reflection on meeting this standard* and *Future learning goals related to this standard*. This isn’t mandatory for summative assessment, but reflection and goal-setting show that the learner is aware of the qualification’s requirements, and help to confirm that the e-portfolio evidence is the learner’s own work.

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**Example of Section layout in an e-portfolio for assessment**

**Cake Decorating** (Unit D9GL 11 – Intermediate 11)

**Section 1 (Outcome 1)**
Demonstrating knowledge and understanding of the basic principles of cake decoration.

**Performance criteria**
- a) Identify fillings and coatings and their appropriate usage
- b) Describe preparation methods and application techniques for fillings and coatings
- c) Identify and describe finishing decoration techniques.

**Evidence demonstrating this standard**
- This Outcome was assessed in an online test which we took in the college. The pass mark was 14 out of 20 and my score was 17.
- My Assessor has retained a copy of my test paper, which was computer marked.

**Reflection on meeting this standard**
I’m disappointed that I lost a few marks on preparation methods. The online test was good – we’d had practice tests on the computer beforehand so I was fine with that.

**Future learning goals related to this standard**
I'll make sure I practice more for any other online tests – we can access the practice tests from home so I'll probably do that next time.

**Section 2 (Outcome 2)**
Demonstrating selecting, preparing and applying fillings and coatings to cake bases

**Performance criteria**
- a) Prepare cake surfaces ready for coating
- b) Select and prepare appropriate fillings and coatings for a range of cake bases
- c) Apply fillings to a range of cake types/surfaces
- d) Apply coatings to a range of cake types/surfaces.

**Evidence demonstrating this standard**
This Outcome was assessed by observation at the same time as Outcomes 3 and 4 – this link (hyperlink) takes you to Section 4 to see the evidence.

**Section 3 (Outcome 3)**
Demonstrating applying finishing decoration techniques to cakes

**Performance criteria**
- a) Select appropriate finishing decoration techniques for a range of cake types
- b) Apply appropriate finishing decoration techniques to produce a commercially acceptable product.

**Evidence demonstrating this standard**
This Outcome was assessed by observation along with Outcomes 2 and 4 – this link (hyperlink) takes you to Section 4 to see the evidence.

**Section 4 (Outcome 4)**
Demonstrating use of safe and hygienic working

**Performance criteria**
- a) Safe working practices are followed
- b) Work area is maintained in a clean and organised manner
- c) Food is handled hygienically
- d) Equipment is used safely.

**Evidence demonstrating this standard**
- This assessment was an Integrated Practical Activity to assess Outcomes 2, 3 and 4. The assessment was by observation. There were 4 of us being assessed.
- We were asked to select and prepare a range of cake bases and decoration materials.
- I had to prepare a range of cake surfaces, and had to select, prepare and apply the following materials:
  - Coatings: buttercream / frosting; sugarpaste; chocolate coating; almond paste and royal icing
  - Fillings: jam / curd; buttercream / frosting
- I then had to demonstrate that I could apply finish decoration techniques to different cake bases. The finish decoration techniques were:
  - Smoothing; piping; crimping; embossing; application of cut out shapes and edible items
- I also had to show that when I was preparing the cake surfaces, fillings and finishing decorations, I was using safe and hygienic working practices.
- Our Assessor video'd our work and also completed Observation Checklists for each of us. He also asked us questions about our work.
We took it in turns to take photographs of each other as we worked.

Evidence – use the links below
- Index No 1 - Video – practical demonstration and questioning (Outcomes 2&4).
- Index No 2 - Record of Questions and Responses (Outcomes 2, 3 & 4).
- Index No 3 - Assessor Observation Record (Outcomes 2, 3 & 4).
- Index Nos 4 & 5 - Photographs (Outcomes 2&3).

Reflection on meeting this standard
I think the video clip and photos show that I can prepare cake bases and work with a range of coatings, fillings and finishing techniques and materials. I was nervous at being video’d but it turned out ok. I answered all the questions correctly and the Observation Checklists show that I applied the fillings and coatings at the correct levels of thickness, and without too much waste, and handled the decorations well.

Future learning goals related to this standard
Next time I’ll try not to be nervous at being filmed – it makes it difficult to do the finishings when your hands are shaking! It’s actually good to build up a video record of your work.

Statements
E-portfolios for assessment generally contain a number of statements, serving different purposes and produced by different people. They could include an Assessor Observation, a Witness Testimony or a learner’s own Reflective Account. We’ve provided templates for these, but most e-portfolios offer tools to create generic statements.

Statements not produced by learners themselves, such as Witness Testimonies and Assessor Observations, could be created using e-portfolio tools, with the learner’s permission, and stored in the e-portfolio. However if this happens the statements would need to be ‘read-only’ to prevent them being altered after the assessment event. Alternatively the Assessor could retain their Observation Records and any Witness Testimonies for verification purposes. Statements are often written, but could also be captured as audio or video records and uploaded or linked to learners’ e-portfolios.

Observation Records
One of the statements an Assessor might create is an Observation Record, generally stating that he or she has watched the candidate carrying out a practical task, or giving a performance, and relating this to the qualification requirements. Observation Records can be checklists, or they could be written or recorded statements which also provide candidates with feedback on their performance. There are templates for each approach in Exemplar e-Portfolio Forms.

Witness Testimonies
A Witness Testimony is a statement from someone who’s observed the learner carrying out an assessment activity. Witnesses don’t make assessment decisions, but they can say what the learner did, and where and when the activity took place, and they can confirm that any evidence produced from the activity was created by the learner.
The template we’ve provided records this, and also records details about the Witness — who they are, whether they’re familiar with the qualification the learner is taking, and whether they hold a relevant qualification. The information provided may mean the Witness’s statement will carry more weight with the Assessor. Here’s an example of a Witness Testimony created in Deskspace using the e-portfolio’s ‘Meeting’ function.

Reflective Accounts
A Reflective Account is like a Witness Testimony, except the learner creates the statement about the assessment activity; what happened and where and when it took place. Learners could use e-portfolio blogs to do this, or Personal Statement tools, if their e-portfolios have those. The template shows the types of information learners should include in their Reflective Accounts.

Records of meetings
Learners should be encouraged to keep records of important discussions, such as meetings with their Assessors, or discussions with their employers, placement supervisors or course tutors that are relevant to their course, training or development. In some qualification areas these meetings are known as Professional Discussions.

E-portfolios usually have ‘Meeting’ functions, as in the DeskSpace example above. The Record of Meetings template in the Exemplar e-Portfolio Forms also provides an example.
Records of Questions and Responses
There will be times when Assessors have to check on what learners know and understand in relation to an assessment activity or a qualification area. This might be, for example, when the Assessor’s observing a learner carrying out a practical task and needs to know if they could do the same task just as well in other circumstances, or with other materials, or using a different technique.

In these cases it’s necessary to keep a Record of Questions and Responses as part of the learners’ evidence for the assessment activity. There’s a template for recording this in the Exemplar e-Portfolio Forms. As with other assessment records, if these are to be held in the learner’s e-portfolio, they should be in ‘read-only’ form. Audio or video recordings of the activity, including the questioning, would also work.

Checklist of e-Portfolio Contents
Learners may wish to include a checklist of contents for their e-portfolio. This can be a useful way of ensuring nothing’s been left out, and learners could also use the checklist to highlight any items that need to be checked or updated, such as items with hyperlinks, before they submit the e-portfolio for assessment. E-portfolios often have ‘checklist’ tools, or learners could create a checklist by adapting the template for the Table of Contents.
Part 2: Assessment and verification

In Part 1 of this guidance we noted that e-portfolios are, in principle, the same as conventional portfolios, but with the benefit of being more versatile. We discussed how centres could advise learners on the content and structure their e-portfolios for assessment. In this section there’s some additional advice on good practice in assessment and verification of e-portfolios highlighting ways in which e-portfolios can be used to enhance these processes.

Key issues in e-portfolio assessment

Assessment of e-portfolios follows the same process as assessment of traditional portfolios — evidence is judged against the assessment requirements for the qualification. However, the use of an online environment, and digital evidence, does open up possibilities for handling some assessment processes in different ways.

Formative and summative assessment

When learners are working with e-portfolios, or in technology-supported environments (such as VLEs), the distinction between formative and summative assessment may be less clear than it is traditionally. Online learning environments provide access to learning resources, and communication tools and forums. Learners are able to work largely independently, or in collaboration with other learners, benefitting from online feedback on their formative work from peers, teachers/tutors and Assessors. This feedback is likely to become an integral part of the assessment process, encouraging learners to re-draft some of their work and promoting reflection and self assessment.

This means that formative work can evolve to become summative evidence, as learners work incrementally towards the point when they judge that their e-portfolios meet the assessment criteria. Once items are submitted for summative assessment, though, they should be ‘locked’ in the e-portfolio, preventing learners from making further amendments.

Re-assessment

After an e-portfolio has been assessed, Assessor comments and feedback may mean that a learner needs to revise elements of their work until it is satisfactory. Occasionally a learner may need to be re-assessed using a new assessment instrument. For example, if an e-portfolio contains evidence from a supervised assessment activity, in which sampling was used to assess the learner’s skills and knowledge, the re-assessment may need to focus on a different sample of questions, or use of different tools, equipment, ingredients etc.

Assessment records

Assessment records could potentially be created using e-portfolio systems. For example, Assessor Observations and Witness Testimonies could, with the learner’s permission, be created using e-portfolio ‘reflection’ or ‘meeting’ tools, while Assessor Checklists and Records of Questions and (Learner’s) Responses could be recorded using ‘checklist’
functions. These items would then become part of the learner’s e-portfolio. If we wish to encourage a learner-centred approach, it might be good practice to encourage this strategy.

If learners do intend to hold assessment records in their e-portfolio, agreement needs to be reached with them about the documents they will include and who will access them. Generally, access will be needed for Assessors, Internal Verifiers and External Verifiers, but the permissions may differ depending on how the e-portfolio tools will be used by each. Most of these records would need to be ‘signed’ by Assessors and Verifiers, and some may be used to record comments from them. All of them should be ‘locked’ (made ‘read-only’) when Assessors and Verifiers have completed them. For more guidance on assessment records see Exemplar e-Portfolio Forms.

Availability of assessed evidence

As well as evidence of assessed work, e-portfolios could, and should, be used to signpost evidence that’s relevant, but isn’t included in the e-portfolio. With traditional portfolios, it’s sometimes difficult to include everything, due to bulk or because some items are physically located elsewhere. With e-portfolios, and especially where evidence is in digital form, web links can be set up to link to any evidence stored elsewhere (reports, presentations etc).

This is important for allowing External Verifiers to consider assessment decisions that relate to these items. If an e-portfolio does simply refer to ‘marked’ evidence, and doesn’t provide a link, centres should be prepared to arrange for External Verifiers to see the items on request. There should also be evidence that these items have been internally verified.

Some of the evidence in question could be from assessments completed under controlled conditions, for example invigilated exams or online tests, or case studies or reports written up under supervision. Even in these situations, there should be evidence for the External Verifier to view; e-portfolios are ideal vehicles for storing copies of marked case studies, reports or exam papers, or digital records or screenshots of online tests. Where these assessments have to be kept confidential for re-use, they should still be available to the External Verifier.

Feedback

Another valuable function of e-portfolios is to store comments from Assessors, including feedback to the learner. Ideally this should be provided for each assessment, and located alongside, or linked to, the relevant items of evidence, the assessment instruments (Observation Checklists etc) and the evidence requirements. Comments from Internal Verifiers are also extremely helpful for external verification purposes.

Supporting evidence

Ideally, an e-portfolio will contain a good balance of assessment resources — different types of evidence generated from a variety of assessment activities. Where assessment is mainly by observation of performance, the performance evidence should, in most cases, be augmented by supporting evidence. In particular, if the learner is aiming to achieve an SVQ, their e-portfolio should reflect the balance of performance evidence and supporting evidence dictated by the qualification requirements.
If Assessor Observation Checklists have been used to confirm a learner’s performance, or planning and evaluation activities they have carried out, the Checklists should be supplemented by supporting evidence. This could be photographs, video clips or written or recorded statements from the Assessor or from Witnesses. Observation checklists without supporting evidence don’t provide a great deal of information for Internal or External Verifiers to consider.

Where e-portfolios do contain supporting evidence, it should be indexed and stored in the same way as the evidence to which it relates, and should also be internally verified.

**Monitoring progress**

An e-portfolio that is used well should make it easy for Assessors and Verifiers to monitor learner’s progress. With project work, for example, e-portfolio tools such as blogs or contact diaries could be used to show learners’ activities as they work through the planning and development stages of the project, highlighting the review/reflection activity and feedback delivered at each stage.

**Web links**

One benefit of e-portfolios is the ability to include web links among assessment evidence. Where learners use these, they should be reminded to check them before submitting the e-portfolio for assessment; broken links should be updated or replaced.

**Access for other providers**

Where a learner attends another provider — for placement, work experience, or in a shared delivery arrangement (such as a school-college partnership) — they should be supported in making their e-portfolios accessible to the partner organisation. The partner’s feedback and input could make a valuable contribution to the learner’s assessment evidence and to the authentication of their work.

**Cross-referencing evidence**

E-portfolios have the advantage over traditional portfolios of generally including functions to allow learners to automatically cross-reference evidence. These facilities are valuable, and learners should be encouraged to use them to support integrated assessment. For example, they could link an item of evidence to both Core and Optional Units in a qualification, or use evidence from an assessment activity for more than one purpose, removing the need to duplicate the activity and the evidence generated.

E-portfolios tools also offer opportunities to clearly cross-reference evidence to show how and where qualification requirements have been met by the uploaded materials. Some e-portfolios use matrices or, alternatively, an e-portfolio could contain proformas that link learners’ assignment instructions to the evidence requirements.
Security and authentication

E-portfolios offer various advantages over traditional portfolios in terms of tools that can be used to enhance the security of assessment evidence. These should be used to full advantage. For example:

♦ Learners should be encouraged to use electronic signatures to show that the evidence submitted is their own work and that it has been formally submitted for assessment.
♦ Assessors’ electronic signatures should be used, where possible, to show that assessment has taken place and a judgement has been reached.
♦ Assessment items should be ‘locked’ within e-portfolios once they’ve been submitted for summative assessment, and the system should retain the items, and Assessor’s comments, for verification.
♦ E-portfolios should be set to gather work that’s ready for internal verification, and agreements should be in place between the centre and learners about timescales for signing off and locking evidence to allow this to happen.
♦ E-portfolios should hold, or link to, information on who’s been involved in authenticating and assessing (and internally verifying) a learner’s work.
♦ Where evidence has been witnessed or authenticated, e-portfolios should hold Witness Testimony records, showing what has been observed or reviewed, and the relationship of the Witness to the learner.

In Authentication (Part 1) there’s more discussion on the tools and approaches that can be used to ensure authentication of learner work.

Internal verification

Internal verification of e-portfolios follows the same processes as for traditional portfolios — assessment decisions are checked to ensure they are appropriate and consistent within the centre. The difference is that the electronic environment can assist with making the internal verification process more effective.

Ideally, centres using e-portfolios, or e-portfolio approaches, will have as much of their internal verification process online as possible. This will allow centres and SQA to maximise the advantages of the technology, by allowing internal verification records and documents to be viewed remotely (see e-verification).

An e-portfolio should show, or link to locations (centre VLE etc) which show, that:

♦ There’s evidence of internal verification activity, which can be accessed in the same way as the assessment evidence. Ideally, the e-portfolio will allow the internal verification process to be viewed from the assessment planning stage through to assessment, review and feedback.
♦ There’s sufficient 'locked' evidence to allow effective internal verification to take place. Where Units or Outcomes are kept open for too long, internal verification won’t be effective. Even where integrated assessment of Units is being used, it’s not necessary to keep all the Outcomes in every Unit open.
♦ There’s evidence of communication between Assessors and learners, and Assessors and Internal Verifiers. Where appropriate, evidence of communication among learners (ie forums, e-mail) is also valuable.
All of this good practice helps to establish an effective online internal verification system.

**External Verification (including e-verification)**

External verification of e-portfolios follows the same processes as for traditional portfolios; assessment decisions are checked to ensure they are appropriate and consistent within and across centres and over time. E-portfolios should be easily accessible to External Verifiers, and should allow them to view evidence of assessment and internal verification activity.

One of the advantages of e-portfolios is that they allow remote external verification, or *e-verification*.

Ideally, External Verifiers should be able to access an e-portfolio via a dedicated External Verifier route (ie not using the Assessor or Internal Verifier password). This will support e-verification and allow a record of External Verification activity to be retained, if the particular system has the facility to record this.

Whether External Verifiers look at learners’ assessment e-portfolios in a centre, or remotely, they should be able to see that the learner’s evidence has been assessed and internally verified and that feedback has been provided to the learner.

Centres should have arrangements in place to provide External Verifiers with access to learners’ e-portfolios.
Part 3: SQA Guidance on e-Portfolios for Assessment

e-Portfolio forms and shells: learner and assessor records

We have published exemplar forms and shells on our website. These could be useful for demonstrating good practice in using e-portfolios for assessment. They’re drawn from processes used for paper portfolios, and can be adapted as necessary. Electronic portfolio systems and approaches should provide tools to serve similar functions.

They are published as a Microsoft Word template file. Launching the file will generate a new document containing blank forms, which you can customise to suit your needs.

We’ve grouped some of the templates under ‘Learner Records’ and others under ‘Assessment Records’, but the distinction is not clear-cut and will depend on how centres use the records. Centres should agree with candidates which of these records will be used, and how and where they’ll be stored.

♦ Some of the shells apply to information that’s not mandatory for assessment or quality assurance, and clearly should be held in the learner’s e-portfolio, such as the Personal Profile and the Reflective Account.
♦ Other shells would be used to store information that does form part of the assessment process, such as the Assessor Observation form and the Record of Questions and Responses.
♦ Even when records do contribute to the assessment process, they could potentially be stored in candidates’ e-portfolios. Witness Testimonies, for example, with candidates’ permission, could be created using e-portfolio tools and become part of the candidate’s e-portfolio evidence.

These decisions are for centres and candidates. Some of the records need to be ‘signed’ by Assessors, and possibly by Internal Verifiers, and could contain comments from both. Centres may think it’s more appropriate for this type of record to be held by the Assessor and retained for external verification purposes. However, if we wish to encourage learners to take responsibility for their assessment, and their e-portfolios generally, some learners may wish to hold copies of their assessment documents.

If assessment records are to be stored, or replicated, in candidates’ e-portfolios, centres will need to arrange with candidates for Assessors, internal Verifiers and External Verifiers to have permission to access these. Also any records deemed to be part of the assessment process would have to be ‘locked’ to candidates (‘read-only’ format) to prevent them being altered after Assessors and Internal Verifiers have completed them.
Candidate Guidance on e-Portfolios

What it is
An e-portfolio, like a paper portfolio, is a way of collecting and presenting evidence of your work. If you’re producing an e-portfolio to gain an SQA qualification, this is known as an e-Portfolio for Assessment.

What’s in it
An e-portfolio for assessment should include items that show you’ve the skills and knowledge to gain the qualification you hope to achieve. The items in the e-portfolio will have to be relevant to the qualification. This could include:

♦ things you’ve produced yourself, such as word-processed documents, diagrams or artwork
♦ records of things you did, such as photographs or video clips showing activities, or audio recordings of you or someone else talking about your activities
♦ links to other things, such as relevant websites, for example to demonstrate research you’ve carried out

Each person’s e-portfolio will be different. Some people submit a lot of evidence for assessment, while others submit less. Some people may include all the evidence they produce during their course or training programme; others may only include a selection of their work. Your Assessor will advise you on this.

You should try to present your evidence in a way that makes it easy for your Assessor and others to read, listen to or view. Your e-portfolio will offer tools and online forms to help you and others record your progress through the qualification.

What’s involved
There are various activities involved in building an e-portfolio for assessment. The first thing to do is to find out about the e-portfolio you’ll be using. Your Assessor will arrange for you to access it and will also help you become familiar with how it works. Most e-portfolios allow you to make some changes to the look or design of the e-portfolio so you should be able to customise it to your taste.

SQA qualifications are made up of Units and each Unit is made up of Outcomes (sometimes called Elements). Your Assessor will provide you with information about your qualification, including about the standards of performance needed (sometimes called Performance Criteria) and the Evidence Requirements. You should aim to create a well-organised e-portfolio where each piece of evidence is clearly labelled and linked to the Outcomes and Performance Criteria. If you can produce this type of e-portfolio, it’ll be easier for your Assessor and others to judge your competence.
Getting started

Start by reading through the Units and Outcomes to find out what's required. You don’t have to do the Units in order. There may be some Units that relate to skills and knowledge which you already possess, or to tasks you carry out on a regular basis, making it easier to collect evidence straight away. Alternatively, there may be things in Units which you still need to learn, or be trained to do, or only do now and again, and these can be left until the opportunity arises for you to collect evidence.

One you’re familiar with the Units and Outcomes, plan (with your Assessor) the Units you’re going to work on first, and how you’re going to generate evidence for these. Think about starting with those Units where you already have experience and where you feel confident. Begin by looking for potential items of evidence. Also think about any tasks you need to do to collect other evidence, and how long this will take. This is usually referred to as producing an Assessment Plan.

The Assessment Plan for your e-portfolio should set out the different stages and activities that’ll be involved in working towards each Unit. Your e-portfolio will probably have a function that allows you to create a plan. Your Assessment Plan should show how each Outcome will be assessed; your Assessor will advise you on this.

You should also look for opportunities to use Integrated Assessment, which is where you carry out a task that can produce evidence for more than one Unit or Outcome. For example, some of the Units in the SQA Course Creative Cake Production are designed to allow them to be delivered and assessed together. One of the Units, Creative Cake Production: Organisation of Practical Skills, can be assessed alongside another Unit, Cake Decoration. This is a practical and cost-effective way to do things as the activities for both Units can be carried out and observed, and maybe even video recorded, as one assessment, and the Learners end up with a finished cake.

Assessment could happen through observation of your performance, or through questioning, or by assessing a product you’ve created, such as the cake, or through a combination of these approaches. If you do have to be observed carrying out an activity your Assessor will normally do this, or it could be another suitable person who will provide a written or recorded Witness Testimony for your e-portfolio.

Your e-portfolio will have an area to record Unit progress. Each time you complete a Unit you should enter your electronic signature, and the date on which you completed the Unit, in the relevant area. Your Assessor will also sign the relevant Units to show they have been assessed.

Here’s a summary of the activities involved in creating an e-portfolio for assessment.
## Creating an e-portfolio for assessment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Task</th>
<th>Who</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning your e-portfolio</td>
<td>Familiarise yourself with the qualification</td>
<td>You - your Assessor will help you find information about the qualification</td>
</tr>
<tr>
<td></td>
<td>Create an Assessment Plan for each Unit</td>
<td>You and your Assessor</td>
</tr>
<tr>
<td>Starting your e-portfolio</td>
<td>Familiarise yourself with your e-portfolio</td>
<td>You – your Assessor will help you access and learn to use the e-portfolio</td>
</tr>
<tr>
<td></td>
<td>Set up your e-portfolio structure</td>
<td>You - your Assessor will advise you</td>
</tr>
<tr>
<td>Building your e-portfolio</td>
<td>Collect and create evidence</td>
<td>You - your Assessor will advise you on how to do this when you create the Assessment Plan. Other people could also be involved in helping you collect evidence - eg if someone needs to observe you carry out an activity and provide a Witness Testimony</td>
</tr>
<tr>
<td></td>
<td>Select evidence to include in your e-portfolio</td>
<td>You - your Assessor may advise you</td>
</tr>
<tr>
<td></td>
<td>Reflect on evidence</td>
<td>You</td>
</tr>
<tr>
<td></td>
<td>Connect the evidence, referencing it to the qualification</td>
<td>You - your Assessor will advise you</td>
</tr>
<tr>
<td>Presenting evidence for assessment</td>
<td>Add your electronic signature and submit your e-portfolio online for assessment</td>
<td>You</td>
</tr>
<tr>
<td></td>
<td>You may also want to create and deliver a presentation of some of the areas of the e-portfolio</td>
<td>You</td>
</tr>
<tr>
<td>Recording evidence</td>
<td>The e-portfolio will record the evidence you submit and lock the evidence until it has been assessed and internally and externally verified. Once assessed and verified the e-portfolio will record the outcome</td>
<td>Your Assessor will judge your evidence and provide you with feedback. If you achieve the Unit your Assessor will validate your achievement by adding his/her electronic signature</td>
</tr>
<tr>
<td>Maintaining the e-portfolio</td>
<td>Maintain and update your e-portfolio as you progress with the qualification</td>
<td>You</td>
</tr>
</tbody>
</table>