SQA

INFORMATION AND COMMUNICATION TECHNOLOGY
SCQF Level 5
40 Hour Unit

CORE SKILLS
ASSESSMENT SUPPORT PACK

Part 1: Information for tutors

What is involved?

This Unit is about using ICT to access, process and present information in personal, workplace, social and educational situations. The focus of the Unit is on transferable ICT skills:

- using computer systems
- using applications software
- finding information from digital data sources

At this level, learners are expected to be able to work with a computer system to carry out more complex processing tasks. They should be able to use the computer independently.

Learner motivation can be maximised by making the ICT activities as relevant as possible to the learner's likely uses for ICT. The activities should be drawn from the learner's personal, workplace, social or educational situation. Additionally, integration of the ICT activities with those of other SQA qualifications being undertaken should be explored. For example, when a learner is undertaking other National Qualifications, motivation for ICT can be increased if the activities are related to these National Qualifications and the learner can see the direct relevance of the ICT. If you do decide to adopt this approach, separate records of assessment decisions must be kept for this Unit and evidence for this Unit should be clearly accessible.

Assessment and evidence

Assessment is likely to use a combination of observation and learner-produced supporting evidence (product evidence) such as printouts, screenshots and files.

You should try to identify naturally-occurring opportunities for assessment where possible. For learners who are also working towards vocational Units or subject specific Units, opportunities for assessment of ICT skills could arise while completing tasks which provide evidence for both the vocational/subject specific Unit and this Unit. Some of the exemplars in this pack could be used or contextualised for this purpose.

When you are assessing by observation, it is essential to keep a detailed checklist. When you are assessing by oral questioning, you must keep a copy of the questions asked and the answers given.

All items of evidence should be signed by you and dated.

Part 3 of this pack supplies exemplar forms which you can use to record successful completion of each of the Unit tasks. You can sign and date these as the learner achieves each task to keep a record of the learner's progress.

Planning

You should work out where opportunities for meeting the standard are likely to arise. Where possible this should be built into the assessment process. You should discuss this assessment process with the learners so that they are quite clear about what is expected from them.

Guidance on the Unit

What learners need to know or be able to do

The Unit states that on completion the learners will know how to:

- select and start up application software (eg word processing; spreadsheet; database; media packages) which is suitable for the activity
- use on-screen help to assist
- enter and edit data using appropriate applications software
- locate and integrate information from a variety of modern data sources. For example, utilising the internet for accessing a array of online databases and resources, cloud-based storage platforms for retrieving and merging data, navigating internal networks (intranets) for specific organisational information, and utilising personal computing devices with file management and search functionalities
- apply a search strategy to find information (eg choice of sources; order of searching; choice of keywords)
- evaluate information found against chosen criteria (eg currency; level of difficulty; reliability; bias; relevance; appropriateness of format)
- evaluate the search strategy (eg Did it produce information which matched the chosen criteria? Was it effective in terms of time and cost? Did it successfully filter out irrelevant information?)
- present information in an appropriate mode (eg display on screen; print out; play audio file)
- keep data secure (for example, keeping your own login and password secure, multi-factor authentication, virus protection, backing up data)

Within the text of the Unit there is also the requirement to:

- make effective and responsible use of hardware devices and software applications, demonstrating due attention to other users.

At SCQF level 5, learners are expected to work independently, seeking assistance only when necessary. You will act as a facilitator adopting an advisory role. You should however, make sure that the learners are familiar with the four areas of ICT detailed overleaf.

ICT operations

This covers everyday interaction with the operating system and common features of application software. The learners must be able to carry out the following activities:

- making effective use of the appropriate software for given tasks
- using on screen help
- present information in an appropriate mode (eg display on screen; print out; play audio file)
- using hardware responsibly, taking account of other users' needs

You should introduce the learners to on screen help systems in order to help them to solve problems with the software applications. Success in this will lead to more independent working.

Processing information using ICT

The Unit requires the learners to use at least one type of applications software. The application should be chosen for its relevance to the learners' personal, workplace, social and educational situations. The learners must show proficiency in the application.

Although not mentioned specifically in the Unit, it is expected that the learners will produce their tasks within a reasonable timescale, accurately and with results meeting the desired purpose

Accessing information using ICT

At SCQF level 5, the learners have to show that they can carry out one fairly complex information search including the following:

- establishing a search strategy
- evaluating the information found
- reviewing the search strategy

Before starting the searching, the learners should create a strategy, where the most likely sources are selected, the order of searching sources considered and the best keywords selected. As each item of information is found, it should be evaluated to see how well it matches the requirements.

This could cover relevance to search, currency of data and appropriateness of format. Particularly for information searched via the Internet, the learners should look at the likely reliability of the data, being aware of bias and deliberate hoax.

Once the results have been produced, learners are required to look at how well their search strategy worked. For example, they might look at: the ease with which it produced required results; the possibility that it left out some useful results; its effectiveness in terms of cost and time.

The Unit asks that the information be both located and integrated. This means that the results of the search will be combined within a presentation or a report on the search topic.

Some learners may carry out searches routinely and perform the above steps automatically. However for the purposes of the Unit, all the above steps must be documented. Only one search is required.

Searching need not be limited to the Internet. It can be related to information held on the learner's own machine or on a local database. The information sought need not be text-based, and could be graphical or multimedia-based. As an indication of complexity, the Unit states:

'*The data source should require several straightforward choices, or have a less obvious structure, or more complex relationships.*'

Although the search has to be documented, in the form of a log or report, the resulting information should be presented by the learners in the appropriate manner, eg displayed on screen or played as an audio file.

Keeping information safe

The learners must demonstrate safe practice with the information which they handle. The most important point is likely to be password security. This can prevent personal identity theft for the learners and keep confidential information safe by preventing unauthorised access to files on the systems they are using.

The online world brings additional problems for keeping information safe. The learners should demonstrate safe practice at all times and use virus protection. In some situations there will be a policy and a system which will periodically make an automatic back up of the computer files. However, the learners must understand the importance of backing up data and in most situations should be making backups themselves.

Gathering evidence

It may be appropriate for you to gather written evidence produced by the learner while carrying out the practical activities. However, written evidence is not essential for this Unit and is inappropriate if it disadvantages the learner.

You may wish instead to use oral questioning. This requires you to create and complete record sheets comprising a checklist, questions asked and learner responses.

From the learner's point of view, it is useful to have the means of keeping all the work of this Unit together. You can help here by creating and providing a workbook which includes all the evidence-gathering items. An alternative would be to provide worksheets which can be made into a paper-based or e-portfolio.

If you have chosen to integrate the ICT work with that of other Units being undertaken by the learner, it may be possible to assess the ICT as part of a larger single activity. In this case you must keep separate records for this Unit.

The Unit requires learners to carry out ICT tasks which involve accessing and processing information. This may be achieved in many ways. Some typical activities might be:

- using a database and creating multiple filters to select information for use in a community mailshot
- searching websites for mobile phone tariffs for users with differing requirements and usage levels and presenting a word-processed report on the findings
- preparing a presentation on healthy eating options for fellow students, using appropriate software applications
- using a company's intranet to research current procedures and practices on equality, diversity and inclusion

It may be possible to create a single activity which would provide evidence for the whole Unit. Certainly, because of the requirement to integrate information in the processing section, the accessing activity could lead naturally on to the processing one.

The most clear cut approach would be to use four tasks. Each would cover one of the sections discussed above. These are:

- ICT operations
- Processing information using ICT
- Accessing information using ICT
- Keeping information safe

Part 2: Assessment Guidance

You can use the exemplar assessments given in this section in several ways:

- to help identify the type and amount of evidence which the learner needs to produce
- to help identify the level of complexity in evidence required for the Core Skill at this level
- to help you to create an assessment task related to the learner's own situation.

You can use the following information to create task sheets to be used with the learners in assessment sessions. The task sheet will contain the assessment items and you can leave appropriate space for the learners to insert their responses.

Learners must complete all four tasks.

Task 1 is designed to cover ICT operations.

Task 2 is designed to cover processing information using ICT.

Task 3 is designed to cover accessing information using ICT.

Task 4 is designed to cover keeping information safe.

For each of the Tasks, successful completion should be noted on a checklist.

Task 1: ICT operations

This task covers the Unit requirements to:

- select and start up application software (eg word processing; spreadsheet; database; media packages) which is suitable for the activity
- use on-screen help to assist
- use hardware responsibly and take account of other users' needs
- present information in an appropriate mode (eg display on screen; print out; play audio file).

You should be able to assess the learners for this task by observation. The activities for the other tasks will normally require the learners to carry out these points. There will be explicit opportunities to observe presenting of information during Tasks 2 and 3. You can create a learner task sheet to remind the learners what is to be assessed. As an example you could use the following as a basis:

Over the next weeks, your tutor will observe your performance in ICT operations. You may be asked questions about what you are doing as you are working.

Your tutor will want to make sure that you:

- make effective use of the software for the tasks you carry out
- are familiar with and make appropriate use of on-screen help
- use hardware responsibly and take account of other users' needs
- are able to present information in the appropriate way, eg printed or displayed on screen and to use multimedia files correctly

Your tutor will make it clear to you the time period over which this assessment is to take place.

You should certainly give warning to students that you are going to be assessing the four points. If any of the points are not observed by you as the learners are carrying out their activities, you can make a point of asking them to demonstrate the point to you. For instance if a learner does not require on-screen help during Task 2 or 3, you can ask the learner to demonstrate it to you.

Task 2: Processing information using ICT

This task covers the Unit requirements to:

- enter and edit data using appropriate applications software

For each context below, two examples are given. Learners need complete successfully only one of the examples for this task.

Personal/Social Context

An exhibition of photographs is to be held to raise funds for a local charity.

1. The exhibition participants have given permission for six of the photographs to be used in publicity. Photo-manipulation software has to be used to resize and crop to give six rectangular pictures of 600 by 400 pixels. The photographs should be further processed to have an identical lightness range. The final results should be presented on the computer monitor.

2. The charity will provide a database of local businesses which will display posters for the exhibition. Word processing software is to be used to write a short explanatory letter which will accompany a copy of the poster. Placeholders should be left for the name and address of the recipient and a mail merge carried out. Use cloud storage to share it with your tutor or print out a copy of the letters.

Educational Context

The learners have taken part in a field trip. An example, would be an information gathering exercise, such as the incidence of various botanical species at a number of different sites. The gathered information is processed, a report and presentation have to be prepared.

1. Spreadsheet software is to be used to represent the information found during the field trip. The spreadsheet should be fairly large, say at least six columns by six rows of data. Processing should be carried out on the spreadsheet, involving formulae. This could be total incidence at the sites and average incidence for the species. Appropriate charts should be produced illustrating the distribution of species at the sites. The results can be displayed on a computer monitor or utilise cloud storage to share it with your tutor.

2. Word processing software should be used to create a report detailing the field trip. Photographs taken during the trip can be incorporated in the report. Utilise cloud storage to share it with your tutor or print out a copy of the report.

Workplace Context

Information on customer spending has been gathered at eight retail outlets for six hourly periods during one weekday. Processing of the information is required.

1   Spreadsheet software is to be used to present and process the information. The spreadsheet will be fairly large, eight columns by six rows of data. Processing should be carried out on the information using formulae to give totals for outlets and times as well as average values. Appropriate charts should be produced to illustrate the distribution of spend over time and at the retail outlets. The results can be displayed on a computer monitor or utilise cloud storage to share it with your tutor.

2   Word processing software should be used to write a letter inviting sales managers from each outlet to the presentation of the results of the customer spend survey. A database is provided with the names and addresses of the people to be invited. Carry out a mail merge to create the letters. Utilise cloud storage to share it with your tutor or print out a copy of the letters.

Here are some suggestions on the complexity and quantity of information to be processed:

- Word processed documents should consist of several well-formatted pages. An exception to this is where a shorter letter is required when it is being used in a mail merge.
- Spreadsheets should consist of at least four columns and four rows of data. The use of formulae should be evident.
- Presentation software should consist of a minimum of six slides. Graphics and varying text sizes should be used.
- Desktop publishing of posters should include formatted text and graphical content.

You can create a learner task sheet from the above information to give to the learners and then observe their performance.

Task 3: Accessing information using ICT

This task covers the Unit requirements to:

- locate and integrate information from a variety of modern data sources. For example, utilising the internet for accessing an array of online databases and resources, cloud-based storage platforms for retrieving and merging data, navigating internal networks (intranets) for specific organisational information, and utilising personal computing devices with file management and search functionalities
- apply a search strategy to find information (eg choice of sources; order of searching; choice of keywords)
- evaluate information found against chosen criteria (eg currency; level of difficulty; reliability; bias; relevance; appropriateness of format)
- evaluate the search strategy (eg did it produce information which matched the chosen criteria? Was it effective in terms of time and cost? Did it successfully filter out irrelevant information?)

The learners must carry out a fairly detailed information search using search criteria and evaluation. You may need to help the learners in choosing a suitable search which will cover all the required activities. You can make use of the many resources covering search criteria and evaluation of search results available to learners on the Internet.

You could create a learner task sheet based on the following:

You are required to carry out an information task involving searching for information. You must document all stages of it. The task has the following steps:

1   Discuss the topic of your search with your tutor.

2   Draw up a search strategy including points such as:

- likely sources
- order in which sources will be searched
- suitable search terms (keywords)

3   Carry out the searching process.

4   Evaluate the items of information you find for suitability and reliability.

5   Evaluate your search strategy in the light of the information you have found.

6   Document your search.

Example search topics are:

Personal/Social Context

The learner is seeking information on the reliability of a particular motor car which is an intended purchase.

This example will allow all the steps to be carried out as there are many official and un-official information sites about cars. There will be a definite need to carry out evaluation as some sites will be biased or have little objectivity.

Educational Context

The learner is seeking information on the effects of the immaturity of Lord Darnley on the life of Mary Queen of Scots.

This example will allow all the steps to be carried out as there are many information sources on this historical subject. There will be a definite need to carry out evaluation as this is a historical topic referring to events more than four hundred years ago. Hard facts will be few.

Workplace Context

The learner works for an entrepreneurial hairdresser who wishes to offer a novel range of hairstyles based on those worn through the centuries. This requires locating graphical/descriptive information illustrating these styles as far back as possible.

This example will allow all the steps to be carried out as there are many information sources which can supply pictures and illustrations. There will be a definite need to carry out evaluation as to the authenticity of the information found.

In each case, the results can be integrated into a report on the topic.

Task 4: Keeping information safe

This task covers the Unit requirements to:

- keep data secure (for example, keeping your own login and password secure, multi-factor authentication, virus protection, backing up data)

This is split into the three items:

- the importance of password security
- using anti-virus software appropriately
- operating a data backup policy

You may be able to assess the learners for this task by observation. You can create a learner task sheet to remind the learners what is to be assessed, using the following as an example:

Over the next weeks, your tutor will observe your performance in keeping information safe. You may be asked questions about what you are doing and your tutor may ask to see your computer folders. Your tutor may wish to see you carrying certain operations with your computer.

Your tutor will want to make sure that you:

- are aware of the importance of password security
- use anti-virus software appropriately
- operate a data backup policy

You should certainly give warning that you are going to be assessing the three points.

You may need to explore further, some of the points in discussion with the learners. You should check that the learners are aware of the need for the precautions as well as how the learners implement them. When discussing the anti-virus software, you may wish to ask the learners to show how it is operated on their computer. Possible procedures are: updating protection files; carrying out a general scan of the computer; scanning a single suspicious file.

Part 3: Exemplar recording documentation

This section provides sample forms which can be used by the learners and tutor to gather evidence and record assessment decisions.

If you have created task sheets, as described in Part 2, they can be used as an assessment record sheet to be completed by the learner directly or used by you to note the result of the discussions with the learner which should be signed and dated by you.

There is an assessment checklist for each of the tasks to be completed, signed and dated by you.

The final form is a summary checklist recording Unit progress to be completed, signed and dated by you.

Assessment checklists

Learner:
Task 1: Basic ICT operations
• select and start up application software (eg word processing; spreadsheet; database; media packages) which is suitable for the activity • use on-screen help to assist • use hardware responsibly and take account of other users' needs • present information in an appropriate mode (eg display on screen; print out; play audio file)

Activity	Achieved (Yes/No)	Tutor initials and date	Comments
1 Makes suitable use of software			
2 Uses on-screen help			
3 Uses hardware responsibly taking account of other users' needs			
4 Presents information in the appropriate mode			

Date of completion:

Tutor signature:

Learner:			
Task 2: Processing information using ICT			
• enter and edit data using appropriate applications software			

Activity	Achieved (Yes/No)	Tutor initials and date	Comments

Date of completion:

Tutor signature:

Learner:

Task 3: Accessing information using ICT

- locate and integrate information from a variety of modern data sources. For example, utilising the internet for accessing an array of online databases and resources, cloud-based storage platforms for retrieving and merging data, navigating internal networks (intranets) for specific organisational information, and utilising personal computing devices with file management and search functionalities
- apply a search strategy to find information (eg choice of sources; order of searching; choice of keywords)
- evaluate information found against chosen criteria (eg currency; level of difficulty; reliability; bias; relevance; appropriateness of format)
- evaluate the search strategy (eg Did it produce information which matched the chosen criteria? Was it effective in terms of time and cost? Did it successfully filter out irrelevant information?)

Activity	Achieved (Yes/No)	Tutor initials and date	Comments
1 Develops a search strategy			
2 Evaluates individual results			
3 Evaluates search strategy			
4 Locates information successfully and integrates results			

Date of completion:

Tutor signature:

Learner:

Task 4: Keeping information safe

- keep data secure (for example, keeping your own login and password secure, multi-factor authentication, virus protection, backing up data)

Activity	Achieved (Yes/No)	Tutor initials and date	Comments
1 Password security			
2 On Anti-virus software			
2 Backup of data			

Date of completion:

Tutor signature:

Summary checklist

Learner:	
Learner number:	
Centre:	

Task	Date achieved	Tutor signature
1: ICT operations		
2: Processing information using ICT		
3: Accessing information using ICT		
4: Keeping information safe		

Part 4: Information for learners

As you work through this Unit, your tutor will need to gather evidence to prove that you have demonstrated all the ICT skills.

This can be done by:

- your tutor asking you questions
- you producing printouts or screenshots
- you filling in a work book, worksheet or diary
- you producing a report

By the end of the Unit you must show that you can:

- select and start up application software (eg word processing; spreadsheet; database; media packages) which is suitable for the activity you are doing
- use on-screen help to assist you
- enter and edit data using appropriate applications software
- locate and integrate information from a variety of modern data sources. For example, utilising the internet for accessing a array of online databases and resources, cloud-based storage platforms for retrieving and merging data, navigating internal networks (intranets) for specific organisational information, and utilising personal computing devices with file management and search functionalities
- apply a search strategy to find information (eg choice of sources; order of searching; choice of keywords)
- evaluate information found against chosen criteria (eg currency; level of difficulty; reliability; bias; relevance; appropriateness of format)
- evaluate your search strategy (eg Did it produce information which matched your chosen criteria? Was it effective in terms of time and cost? Did it successfully filter out irrelevant information?)
- present information in an appropriate mode (eg display on screen; print out; play audio file)
- keep data secure (for example, keeping your own login and password secure, multi-factor authentication, virus protection, backing up data)

These are some of the things you might do to provide the evidence:

- using a database and creating multiple filters to select information for use in a community mail-shot
- searching websites for mobile phone tariffs for users with differing requirements and usage levels and presenting a word processed report on your findings
- preparing a presentation on healthy eating options for fellow students, using appropriate software applications
- using your company's intranet to research current procedures and practices on equality, diversity and inclusion

Learners with disabilities and/or additional support needs

The additional support needs of individual learners should be taken into account when planning learning experiences, selecting the most appropriate assessment activity and considering any reasonable steps which might be necessary to allow the learner to meet the assessment standard.

Further advice can be found in SQA's Assessment Arrangements' web pages (www.sqa.org.uk)

ADMINISTRATIVE INFORMATION

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