

TEACHER'S NOTES

ICT Levels 1 and 2

Chapter 3

Find and select information

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TEACHER'S NOTES

ICT Levels 1 and 2

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Draft for pilot centres

- Chapter 1:** Using ICT systems
Chapter 2: Safety and security
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Chapter 5: Entering, developing and combining information (part A)
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How to use the Functional ICT materials

These materials have been developed to help learners acquire the skills that are outlined in the QCA Functional Skills Standards for ICT under the three skills areas of 'Use ICT systems', 'Find and select information', 'Develop, present and communicate information'.

The structure of the materials

The chapters follow the sequence of the standards, with each chapter divided into sections matching the coverage of the standard or standards indicated. The standards are given at the start of each chapter, using the wording from the official document on the teacher pages and an adapted version, more appropriate to learners' needs, on the learner pages.

This structure should not be taken as a recommended teaching framework but merely as the method deemed most appropriate to demonstrate complete coverage of the standards. It is expected that teachers will organise their teaching sessions according to the needs, level of experience and interest of their learners, and the contexts in which they are working.

It should also not be assumed that material included here will form part of the functional skills assessment: by its very nature, the assessment will cover only part of the standards.

Level differentiation

The learner's materials are for learners working at Levels 1 and 2, and the content and activities designed to be accessible to Level 1 learners. No attempt has been made to differentiate between the two levels in the pages of the learner's materials. The teacher's notes, however, use bold text (presented in a tinted box) to identify those activities and teaching points that are intended for Level 2 learners. The basis of the design of the materials is that, as in the standards, differentiation will be as much by outcome as by activity. The other key level differentiators – complexity, familiarity, technical demand and independence – are reflected in the tasks, which are designed to show the progression that is a feature of the standards:

At Level 1, learners would be expected to:

- identify the ICT requirements needed to solve a straightforward task and apply their knowledge and understanding to produce an appropriate solution (complexity)
- apply their knowledge and skills within a non-routine but familiar context (familiarity)
- apply a range of techniques in a number of applications to produce an appropriate outcome (technical demand)
- solve problems that are essentially instructor/tutor guided, demonstrating the confidence to make informed choices and knowing when to seek guidance (independence)

At Level 2, learners would be expected to:

- analyse multi-step tasks and separate the components, identifying the relevant ICT requirements and applying their knowledge and understanding to produce an appropriate solution (complexity)
- apply their knowledge, skills and understanding within non-routine and non-familiar contexts (familiarity)
- demonstrate the application of a wide range of techniques across several applications to produce an appropriate outcome (technical demand)
- solve problems independently, overcoming challenges to produce successful outcomes (independence)

This differentiation between levels requires the teacher to provide more guidance at Level 1 than at Level 2. With Level 1 learners, for example, teachers may choose to use a simplified task to allow a learner to practise the skill within their prior experience, whereas they may choose to enhance the challenge for Level 2 learners by using a more complex task that matches the learner's experience (more specific suggestions for differentiation are contained in the teacher's notes).

The activities have been developed with this varying guidance in mind, so that later activities in each section are expected to be undertaken with less teacher support. The expectation is, though, that all learners will be engaged in the learning process through discussion and social interaction.

The elements of the chapter

The chapters follow the standards and are divided into sections broadly corresponding to the coverage of those standards. Within each section there are two main sub-sections: 'Learn the skill', which provides information and facts for discussion and exploration; 'Develop the skill', which provides activities to practise the skills, test understanding and extend knowledge. The pages of the learner materials also direct the learner to additional electronic resources in the form of 'skills demonstrations' (captivates) and 'assets'.

» Captivates are screen-based skills demonstrations of points made in the text, which the learner can click on for instruction or information.

📁 Assets are files of information provided or stored digitally, which may include photographs, sound clips, databases, spreadsheets, etc. These may also include material learners will need to perform the activities (e.g. tables to complete).

These resources are available on the website, at the same point where these materials were available for downloading.

A note on resources and providing a safe working environment for learners

Any suggestion for software to be used with activities is not meant to be exclusive. It is understood that different centres will have different resources, and that some centres will allow learners only limited access to the internet, will not accept downloading and will allow learners only partial control over their work-station. The resources have been developed on the understanding of variations in resources, access and control, but there are still bound to be activities that present challenges for some centres. Where possible, suggestions for alternatives have been given in the teacher's notes; teachers are expected, in any case, to adapt activities for the use of their own favourite, or personally developed, resources.

These restrictions on internet browsing, downloading, and altering machine configurations may create difficulties on functional skills courses, where the standards require learners to actively engage in such tasks. One possible technical solution to this problem is to employ **virtual machine software**, which allows an instance of an operating system (usually Windows or Linux) to be run in a virtual environment that is isolated from the real machine. Changes made in the virtual machine have no effect on the real machine and can be completely discarded when the virtual machine is closed. Alternatively, a working state can be preserved in the virtual machine by taking a 'snapshot' before closing the virtual machine.

A virtual machine can be used to safely browse the internet, download and install software, and explore machine settings, with no risk to the real machine or associated network.

The best-known virtual machine products are Microsoft Virtual PC (currently free) and VMWare Workstation.

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3 Find and select information

(pages 2–6 in the learner materials)

Skills area: Find and select information		
Skill standard	Coverage and range	Unit
Level 2 content in bold	Level 2 content in bold	
1 Select and use a variety of sources of information independently to meet needs for a complex task	1.1 Select and use appropriate sources of ICT-based and other forms of information which match requirements	A Secondary sources of information
		B Keeping information secure
	1.2 Recognise copyright constraints on the use of information	C Understanding copyright

A Finding secondary information

There are many ways of gathering information and learners need to choose methods that are suitable for the purpose they have in mind.

Discuss the differences between primary sources (created yourself) and secondary sources (produced by someone else). Compare the different forms of secondary sources.

Activities

A1: Help learners to fill in the table and talk about the advantages/disadvantages of using these sources: for example, a book or website may be out of date but a website can also be very up to date with new information, magazine information may be biased, questions at interviews can be one-sided but interview questions can change in response to the person being interviewed and perhaps be more informative.

A2: Support learners to produce a table for information on something of interest to them. Encourage learners to be organised when using pieces of information. Talk about asking permission for text and images, photos, interviews, etc.

Level 2

Learners need to be able to keep a record of permissions on complex projects. Using a range of books, newspapers, CDs, etc., ask learners to identify as many different indicators of copyright constraint as they can find.

B Capturing and using information

Knowing how to find a variety of information is important but learners also need to know how to capture the information in a way that is easily stored electronically, easily found when you need it and acknowledged correctly. Use the assets and captivates

in this section to make sure learners are confident about using different electronic equipment to capture information. Talk about using scanners for paper-based resources and how the result is a secondary source. Look at different ways to capture and manipulate images and sounds. Also emphasise the importance of using relevant information and content that is suited to the learner's purpose. The picture may look good, but is it pertinent?

Activities

B1: Use this activity to explain how to download photos from a digital camera and mobile telephone. Encourage learners to express themselves visually: are they shy, happy, grumpy? Download these photos onto a computer. Ensure learners know where and how to save the files. Look at cropping and resizing.

B2: Talk about how to capture video. Does this differ from capturing static images? What about printing the images?

Level 2

Ask learners to make a short video that includes some planned criteria: for example, it has to include people and be filmed outdoors as well as inside a building.

B3: Encourage learners to record their voices for others to guess. How can the learners manipulate the sounds? Can the voices be distorted, repeated, etc.? Help learners to record a variety of sounds and practise making sound clips.

Level 2

Using more than one source – e.g. podcast, mp3 or video, etc. – ask learners to capture and store sound clips relevant to their project or a suitable topic such as sports interviews and reports, film or fashion reviews.

C Understanding copyright

Every time a learner gathers information from a secondary source, they are using material that belongs to someone else. Learners need to get into the habit of acknowledging and recording their sources. Talk about copyright in relation to downloading music, films, etc. The availability of content does not imply the right to use it.

Discuss plagiarism and emphasise the point of not copying other people's materials. Learners should understand that plagiarism is treated very seriously. To this end, remind learners of these rules:

- Learners must work independently and produce their own work
- If a learner copies from secondary sources, they must show clearly what they have used and acknowledge the source
- A learner must not use another learner's work

Discuss the software that is used to detect similarities in learners' work and emphasise the 'Tip' box.

Level 2

Briefly introduce the Data Protection Act. Ask learners to read and discuss the eight principles of the DPA.

For further information about the DPA, go to www.legislation.org.uk/tools.htm

Activities

C1: Encourage learners to record their sources accurately. Talk about where to find the information needed and – using a selection of books and magazines, etc. – ask learners to fill in the table.

C2: Emphasise accuracy in recording information. Ask learners to pick out the correct URL address in each section. One way of avoiding typing errors is to copy and paste the information directly onto the record sheet.

Answers: (i), (ii)a, (iii)b