TEACHER'S NOTES
ICT Levels 1 and 2

Chapter 5
Entering, developing and combining information (Part A)

EDEXCEL FUNCTIONAL SKILLS PILOT

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
Chapter 3: Find and select information
Chapter 4: Using ICT-based information
Chapter 5: Entering, developing and combining information (Part A)
Chapter 6: Entering, developing and combining information (Part B)
Chapter 7: Presenting information
Chapter 8: Communicating using ICT
Chapter 9: Test preparation

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 are 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 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 – and of these teacher's notes, too – also direct the learner/teacher 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 can be clicked 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 needed 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.

5 Entering, developing and combining information (Part A)

(pages 3–11 in the learner materials)

Skills area	Skill	Coverage	Unit
	Level 2 in bold	**Level 2 in bold**	
C Develop, present and communicate information	**C1** enter, develop and format information **independently** to suit its meaning and purpose, including:	**C1.1** enter, organise (**structure of information**, **document layout**, headings, **subheadings**, lists, tables, use of templates, develop, refine and format information, applying editing techniques to meet needs)	**A** Organising information
		C1.2 use appropriate page layout (**columns**, margins, header, footer, portrait, landscape, page breaks, page numbering)	**B** Page layout
	• text and tables	**C1.3 enter** and format text to maximise clarity and enhance presentation (bullets, numbering, **sub-numbering**, alignment, tabs, line spacing, colour, font, style, size, simple tables, **complex tables**), **create and format tables (timetable, components list, membership information) to maximise clarity and enhance presentation (horizontal and vertical text alignment, merge and split cells, gridlines, borders, shading)**	**C** Formatting text
	• images	**C1.4** obtain, insert, size, crop and position images (clip-art, photo, scanned image, **borders**) that are fit for purpose	**D** Using images

A *Organising information*

Compare different layouts of documents, looking at headings, fonts, spacing. Discuss the benefits of a word processor over a typewriter. Look at the various editing techniques available to format a page.

Level 2
Extend skills by asking learners to divide headings into subheadings. Encourage learners to organise information in different ways until the best solution is found.

B *Page layout*

Learners may have difficulty formatting sections of a page or document. Point out boxes that refer to *the whole document, from this point forward* and *selected text*.

Level 2
Discuss when columns would be useful in a document. Help learners to set gaps between columns and set the separator line.

C *Formatting text*

Look at a variety of fonts, sizes and colours. When is it appropriate to use some and not others? Would a report use the same font style and size as a poster?

Talk about the differences in fonts, using specific fonts as examples, e.g.:
• Courier is a **monospaced** font – all letters are the same width, as was the case on typewriter keys; it is not ideal for reading.
• Georgia is a **proportional** font where the widths of the letters vary – the letter 'i' takes less space than the letter 'w'.
• Serif fonts (e.g. Georgia, Times New Roman) have cross-strokes at the top and bottom of their letters
• Sans-serif fonts (e.g. Verdana, Arial) have no cross-strokes at the top and bottom of their letters
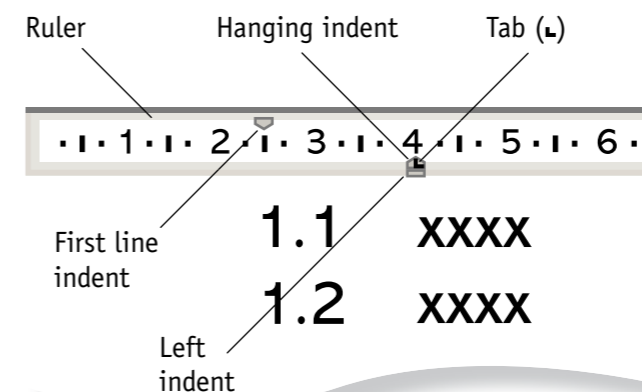
Discuss when to use bulleted and numbered lists in a document. Show how to insert a simple table and how a table can be created directly from text, if it is in a suitable format. Your word processor will need to provide a 'convert-text-to-table' option for this to work. In Word, it will be found in the Table menu.

Activities

Level 2
For Activity C2, ask learners to use sub-numbering by using the 'Bullets and Numbering' dialog box and the ruler tab and line indent controls on the ruler to format the list so that it appears as shown below.

1. Animals I like
   1.1 xxxx
   1.2 xxxx
   1.3 xxxx
   1.4 …

2. Animals I don't like
   2.1 xxxx
   2.2 xxxx
   2.3 xxxx
   2.4 …

Ruler   Hanging indent   Tab (∟)

·ı·1·ı·2·ı·3·ı·4·ı·5·ı·6·

First line indent

1.1   xxxx
1.2   xxxx

Left indent

Learners may like to experiment with changing the margin sizes and changing the style of the body text paragraphs: first line indent, hanging indent and whole paragraph indent.
• Ask learners to open the document on small garden animals and create and format more-complex tables. Use the asset on small garden animals to talk about how to merge and split cells, use gridlines, borders, shading, horizontal and vertical text alignment.
• Further help is given in step-by-step instructions in the asset 'small animal table construction'.

D *Using images*

Images make a page livelier. They can also give information in their own right. Talk about gathering images to get a message across and not just for the sake of it. Remember to discuss copyright in relation to using ready-made images (section C in Chapter 3 has more information on copyright).

Creative Commons is an international licensing scheme which encourages people to share digital assets that they have created. Its website has links to many examples of high-quality images, moving images and audio. The idea behind Creative Commons is that everyone can use – and in certain cases adapt – the original assets to create something new.

Activities
Learners will need to use the text and images from Huckleberry Finn for D1.

Level 2
Show learners how to add borders to images to enhance presentation.

Learners may also like to source content for the small garden animals table they used in section C and complete the following activity:

a Use a source of clipart to locate suitable images to illustrate the animals in your table.

Hint
The Microsoft website (http://office.microsoft.com/en-gb/clipart/default.aspx) has suitable free images that can be downloaded. Search on the name of the animal.

b Place the flashing cursor (the typing caret) in a table cell and use the Insert/Picture menu option to insert a clipart image into the table. Repeat for each animal in your table.

c Make sure the image is centre aligned, both horizontally and vertically.