

KEY SKILLS

Information and communication technology Level 4

The key skills are the skills which are most commonly needed to succeed in a range of activities – at work, in education and training and in everyday life. In developing the key skill of Information and Communication Technology, you will learn to use and adapt your information and communication technology skills confidently and effectively in a range of settings and contexts.

Progression

The key skills qualifications are designed to enable you to progress at your own pace. Each level of the key skill incorporates and builds on the previous ones. The key skills qualifications not only recognise your current capabilities, they also require you to identify how you can further improve your skills to meet new demands at higher levels.

Part A

YOU NEED TO KNOW HOW TO

This section tells you about the techniques and knowledge associated with each key skill. It tells you what you need to learn and practise to feel confident about applying information technology skills in your studies, work or other aspects of your life.

Part B

YOU MUST

This section builds on Part A and describes the application of skills. It describes the skills you must show. All your work for this section will be assessed. You must have evidence that you can do all the things listed in the bullet points.

To achieve information and communication technology at level 4, you must be able to apply your ICT skills to suit different purposes. You will show that you can:

- develop a strategy for using ICT skills over an extended period of time
- monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving the use of ICT for different complex purposes
- evaluate your overall strategy and present the outcomes from your work using a presentation showing integration of text, images and number.

Part A

YOU NEED TO KNOW HOW TO:

Develop a strategy

- establish opportunities for using ICT skills over an extended period of time (*eg in a programme of study, project or work to be carried out over about three months*)
- identify the outcomes you hope to achieve (*eg improved access to information, faster communication, more efficient design or problem solving capability*)
- identify relevant sources of information, including people and reference material (*eg line manager, specialists, customers, colleagues; manuals, CD-ROMs, databases, the internet, on-line help*) and research the information needed for planning purposes
- plan your use of ICT skills (*eg options, sequence of work, resources, level of expertise needed*), taking into account factors that may affect your plans (*eg patterns of work, health and safety, social, economic, ethical and moral issues raised by the use of ICT*)
- make a reasoned selection of methods for achieving the quality of outcomes required (*eg internet search engines, e-conferencing, CAD/CAM techniques*).

Monitor progress

- prepare ICT (*eg create macros, link spreadsheets, define styles, create database structures, customised query routines, set up control equipment to monitor experiment results and generate readings for a report, organise e-conferencing*) and use ICT to aid:
 - efficient searching, evaluation and selection of information (*eg to assist in finding, organising and comparing information, consulting others on its reliability and quality*)
 - exploration of alternative lines of enquiry (*eg varying rules within models to make predictions and test hypotheses*)
- develop and exchange relevant information to meet your purpose (*eg use e-mail, shared access to documents, video conferences*)
- derive new information (*eg make calculations, synthesise information from a variety of sources to reach own conclusions, predict trends, create a new design*)
- monitor and critically reflect on your use of ICT skills, including:
 - obtaining feedback from others (*eg colleagues, tutor, project supervisor, line manager*)
 - noting choices made and judging their effectiveness (*eg impact on quality of work*)
 - adapting your strategy to overcome difficulties and produce the quality of outcomes required.

Evaluate strategy and present outcomes

- develop the structure for presenting your work, integrating different types of information to ensure consistency in changes to the display of text, numbers and images
- use the views of others to guide refinements to content and design
- present information effectively, using a format and style (*eg a single form or multi-media*) to suit your purpose, subject and audience, and ensure that:
 - it is accurate in terms of content and conventions (*eg spelling, punctuation and grammar, labelling of charts, diagrams and graphs, house style for design features*)
 - it makes sense (*eg proof-read and amend where necessary*)
- assess the effectiveness of your strategy, identifying factors that had an impact on the outcomes (*eg availability and quality of resources, features of the working environment, level of own expertise*)
- identify ways of further developing your ICT skills.

Part B

YOU MUST:

Provide at least **one** extended example of meeting the standard for ICT4.1, ICT4.2 and ICT4.3 (your example must show you can use ICT to handle text, images and numbers).

ICT4.1

Develop a strategy for using ICT skills over an extended period of time.

Evidence must show you can:

- 4.1.1 establish opportunities for using ICT skills and clearly identify the outcomes you hope to achieve
- 4.1.2 identify relevant sources and research the information needed for planning purposes
- 4.1.3 plan your use of ICT skills, making a reasoned selection of methods for achieving the quality of outcomes required.

ICT4.2

Monitor progress and adapt your strategy, as necessary, to achieve the quality of outcomes required in work involving the use of ICT for **two** different, complex purposes.

- 4.2.1 prepare, and use, ICT to aid efficient searching, evaluation and selection of information, exploring alternative lines of enquiry where appropriate
- 4.2.2 develop and exchange relevant information, and derive new information, to meet your purpose
- 4.2.3 monitor and critically reflect on your use of ICT skills, adapting your strategy as necessary to produce the quality of outcomes required.

ICT4.3

Evaluate your overall strategy and present the outcomes from your work using at least **one** presentation, showing integration of text, images and number.

- 4.3.1 develop the structure for presenting your work, integrating different types of information and using the views of others, where appropriate, to guide refinements
- 4.3.2 present information effectively, using a format and style to suit your purpose, subject and audience, and ensure it is accurate and makes sense
- 4.3.3 assess the effectiveness of your strategy, including factors that had an impact on the outcomes, and identify ways of further developing your ICT skills.

EXAMPLES AND GUIDANCE

The following gives further guidance and examples of the techniques and knowledge in Part A.

DEVELOP A STRATEGY:

- establish opportunities for using ICT skills over an extended period of time (eg *about three months*)
- identify the outcomes you hope to achieve (eg *improved access to information, problem solving capability*)
- identify relevant sources of information (eg *customers, colleagues, databases, the internet*)
- plan your use of ICT skills (eg *sequence of work, level of expertise needed*), taking into account factors that may affect your plans (eg *social, economic, ethical issues raised by the use of ICT*)
- make a reasoned selection of methods for achieving the quality of outcomes required (eg *internet search, CAD/CAM techniques*).

MONITOR PROGRESS:

- prepare ICT (eg *create macros, create database structures, organise e-conferencing*)
- use ICT to aid efficient searching, evaluation and selection of information (eg *to assist in finding, organising and comparing information*)
- explore alternative lines of enquiry (eg *varying rules within models to make predictions and test hypotheses*)
- develop and exchange relevant information to meet your purposes, (eg *use email, video conferencing*)
- derive new information (eg *make calculations, predict trends*)
- monitor and critically reflect on your use of ICT skills (eg *feedback from colleagues, a project supervisor, line manager*), noting choices made and judging their effectiveness (eg *impact on work quality*) and adapting your strategy to produce the quality of outcomes required.

EVALUATE STRATEGY AND PRESENT OUTCOMES:

- present information effectively, using a format and style (eg *a single form or multi media*), to suit your purpose, subject and audience, ensuring that it is accurate in terms of content and conventions, (eg *labelling of charts, house styles for design features*), and it makes sense (eg *proof read and amend*)
- assess the effectiveness of your strategy, identifying factors that had an impact on the outcomes (eg *features of the working environment, level of own expertise*).

For further examples and guidance on the key skills standards please refer to *The key skills qualifications standards and guidance* (order ref: QCA/04/1272).

Help with producing evidence

If producing certain types of evidence is difficult for you because of a disability or for another reason, please discuss this with your tutor or supervisor. It may be possible for you to produce evidence using alternative methods. Depending on the skill and level, these may include use of a scribe (amanuensis); Braille, voice activated software and British Sign Language. Detailed guidance is available in the document *Basic and Key Skills: Guidance for candidates with Particular Requirements* published by the Joint Council for Qualifications. This is available from your key skills awarding body.

Please ask your tutor or supervisor for further guidance.

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Qualifications and Curriculum Authority, 83 Piccadilly, London W1J 8QA. www.qca.org.uk

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