OCR GCSE ICT and functional skills
curriculum guidance

This guide is designed to accompany the OCR GCSE ICT specification for teaching from September 2010.

GCSE
ICT 2010
Making the changes work for you

Contents

1 Introduction

1.1 What is the purpose of this guidance booklet?

This guidance booklet is aimed at heads of department and teachers: it provides general background information, guidance and a range of possible models to deliver GCSE ICT.

1.2 Reforms in 14-19 qualifications

As part of the reforms in 14-19 education, all GCSEs have been reviewed. Changes to GCSEs include controlled assessment in place of coursework, refreshed and updated content, and for Maths, English and ICT, the incorporation of functional skills.

Taken together, the reforms provide a range of complementary and flexible learning pathways to help prepare all 14-19 year olds to progress in training, education, employment and adult life. These reforms will:

- ensure learning is effective, engaging and relevant to young people's lives

- enable all learners to make progress and achieve their potential

- give all learners choice and flexibility in their learning opportunities

- develop skills that learners need for success in further learning, training and employment

- make it easy for learners and employers to understand different qualifications.

The re-development of GCSEs for first teaching in 2010 provides the perfect opportunity to refresh GCSE ICT. OCR has brought a focus on customer driven development coupled with expertise with IT qualifications to the new qualification.

1.3 OCR pathway for ICT from Entry Level to A Level

To show how you can create a clear pathway from Entry Level to A Level we are also producing a **Guide to Curriculum planning** for ICT which outlines some of the possible pathways you could follow in your centre including choices to meet your learners' interests, aptitudes and needs and the resources available within your centre.

2 Delivery models for OCR GCSE ICT and Functional Skills specifications

The new GCSE ICT specification contains elements from the current provision: GCSE ICT A, ICT B and Applied ICT Double Award.

	What stays the same?	What changes?
Structure	• Retains the familiar structure of four units – two practical and two externally assessed. • Short course and full course options. • Retains flexibility in delivery. • Similar research brief for one of the externally assessed units (as in the current ICT B). • Retains the context-based, externally assessed unit (as in the current ICT B).	• Optional pathways for the second practical unit to ensure relevance and choice. • A contextualised, externally assessed unit, as a result of teacher feedback. • Units can be taken in any order. • No tiers.
Content	• Incorporates popular features from current specifications. • Familiar content allows you to make the most of your centre's current resources.	• Flexibility to allow for future developments and changes in ICT use. • More focus on the communication elements of ICT. • Exciting changes to content and format. • New course allows for pathways such as a gaming solution/website solution, or programming, to maximise teacher and learner expertise and interests. • More flexibility in choice and focus on practical work. • Context-related, externally assessed unit based upon a research brief. • Variety of tasks for internal assessment to give more choice to centres.
Assessment	• Two externally assessed units and two internally assessed units (as in the current ICT A and B specifications). • Pre-release material for one examined unit.	• Choice of exciting set tasks for the practical units. • Single tier of entry for all units. • Practical assessment now by banded marking criteria with a 'best fit' approach. • Optional pathways as part of the second practical unit.

2.2 How to deliver the GCSE ICT and Functional Skills specifications

With functionality embedded into our new GCSE ICT specification for first teaching from September 2010, your learners will be on their way to becoming equipped with the necessary skills to successfully complete OCR's standalone Functional Skills ICT assessment should they so wish.

Below are some of the most common ways the specification will be used by centres. Please note that these are suggestions only and other routes are available.

The new GCSE ICT specification is designed to include familiar key concepts alongside newer technologies and applications of ICT. The assessment format has been developed to enable completely ICT based examination and controlled assessment submission as well as traditional paper based routes. The centre can make their choice depending upon the resources available.

The four units are designed to follow on from each other though some overlap between unit B061 and development work for B062 and between B063 and development work for B064/B065 is advisable to reinforce the theoretical concepts through practical application. The suggested delivery routes shown below are intended to help with planning how these courses may be delivered in your centre and are not the only possibilities. It is important; however, that planning includes consideration of the terminal rule and entry for certification is made in the same session the candidates meets the requirements for that certification. A candidate who has completed all the units required for the qualification must enter for certification in the same examination series in which the terminal rules are satisfied.

The two year course and one year short course suggestions assume 2 hours per week are available to teach ICT, for the one year course it is assumed there are 3 hours per week to teach ICT.

2.2.1 Two year course: Year 1 of 2 OR one year short course

Term	Week	Theory	Practical Activity	Comments	Functional Skills
Autumn	1	2.1.1		Unit 2.1.1 introduces basic concepts including the range of software available. Practical experience of this will be essential.	The basic concepts learned and the practical experience gained in ICT systems provides the basis of **FS 2.2** and **FS 2.3**. Practical experience is essential for Functional Skills.
	2				
	3		Practical experience with range of software.		
	4				
	5	2.1.2			
	6		Practical experience.	Unit 2.1.2 covers exchanging information and practical experience of this and the implications is useful.	**FS2.8** requires learners to use communication software. Practical experience is, therefore, essential.
	7				
	8				
	9	2.1.3	Practical delivery.	Unit 2.1.3 covers presenting information and will be part of the controlled assessment, practical delivery is appropriate.	**FS2.6 and FS2.9** requires learners to combine and present information in ways that are fit for purpose and audience. Practical delivery is essential.
	10				
	11				
	12	2.1.4		Unit 2.1.4 covers manipulating data. A good theoretical appreciation of the concepts can best be delivered through practical experience. This is also good preparation for the controlled assessment.	**FS2.7** requires learners to use software to meet the requirements of a complex data handling task. Practical ability is essential.
	13		Practical delivery of content.		
	14				
Spring	15				
	16	2.1.5	2.1.5 - 2.1.7 may be relevant preparation for the controlled assessment.	These units cover various aspects which may be relevant to the chosen task and are therefore a sensible prelude to starting the controlled assessment, however, depending upon the content of the task these units may need to be swapped with other units.	These units provide the learner with the knowledge required when using ICT systems, in particular **FS2.2.3**, **FS2.2.4** and **FS2.2.5**.
	17				
	18	2.1.6			
	19				
	20	2.1.7			
	21				
	22		**B062**: Controlled assessment preparation.	Candidates should be given time for collaborative preparation for the controlled assessment.	Functional Skills in ICT is tested under examination conditions. Each learner carries out tasks independently. Research skills learnt while investigating a need would reference to **FS2.4** and **FS2.5**. While carrying out the controlled assessment learners will be demonstrating their ability in most of the functional skills criteria.
	23				
	24		**B062**: Controlled Assessment.	Controlled assessment to be completed under the appropriate supervision. Suggested deadlines will depend upon the Easter holiday timings but teachers should leave themselves sufficient time to assess the work in time for the 15th May deadline for submission of marks.	
Summer	25				
	26				
	27				
	28				
	29	2.1.8 and 2.1.9	* Depending upon the nature of the chosen assessment these units can be interchanged with any of 2.1.5 - 2.1.7 above.	The time from mid April to mid May is reserved for teacher assessment of controlled assessments.	Not applicable to Functional Skills.
	30				
	31				
	32	Exam preparation			
	33				
	34				

2.2.2 Two year course: Year 2 of 2

Term	Week	Theory	Practical Activity	Comments	Functional Skills
Autumn	1	2.3.1		B063 is based around pre release material and teaching should focus on application of the general concepts to the chosen area.	Functional Skills is about the use of ICT in everyday situations at work, study or life in general. The level of knowledge required in the GCSE exceeds the knowledge requirements of ICT Functional Skills. However, Level 2 learners are expected to demonstrate their use of ICT to solve complex problems in unfamiliar and non-routine situations. The analysis of the use of ICT in context would assist learners to transfer their ICT skills to a range of situations.
	2		Practical experience of software appropriate to the teacher release.		
	3				
	4	2.3.2		This unit covers networking concepts.	
	5				
	6	2.3.3		Unit 2.3.3 Covers Information Knowledge Based systems.	
	7	2.3.4	Practical delivery using ideas for controlled assessment tasks as a basis for project development concepts.		
	8			This is a good time to introduce the final controlled assessment so students can think about possible routes they might take.	
	9				
	10	2.3.5	Exchanging information is a key concept and candidates should have experience using suitable applications.		
	11				**FS2.8** requires learners to use communicational software.
Spring	12	2.3.6	Alongside these key theoretic concepts it is time to plan for the final controlled assessment unit and develop those skills that will be required to complete the chosen task. Introduce the key skills sets.	Units 2.3.6 and 2.3.7 have been introduced in B061 but students need to be aware of how these are used in the area covered by the pre release material.	As in B061 the skills required in presenting and manipulating data reference to **FS2.6**, **FS2.7** and **FS2.9.**
	13				
	14	2.3.7			
	15				
	16		Key preparation time for the controlled assessment unit to develop skills in the chosen area, Multi Media, Game writing or Computer programming.	Once again it is important the legal and social etc and data security are discussed with reference to the area covered by the pre release.	
	17				
	18	2.3.8			
	19				
	20	2.3.9			
	21				
Summer	22		**B064/B065**: Controlled assessment preparation.	Candidates should be given time for collaborative preparation for the controlled assessment.	No explicit evidence of planning is required for Functional Skills, however, the skill of analysing how ICT can be used to solve a complex task is essential (**FS2.1** and **FS2.2**). The skill of evaluating the use of ICT is also important (**FS2.10**) The level of analysis required for the GCSE exceeds that required in ICT Functional Skills.
	23				
	24		**B064/B065**: Controlled Assessment.	Controlled assessment to be completed under the appropriate supervision. Suggested deadlines will depend upon the Easter holiday timings but teachers should leave themselves sufficient time to assess the work in time for the 15th May deadline for submission of marks.	
	25				
	26				
	27				
	28				
	29	2.3.10		The time from mid April to mid May is reserved for teacher assessment of controlled assessments.	
	30				
	31	Exam preparation			
	32				
	33				
	34				

2.2.3 One year course

Term	Week	Theory	Practical Activity	Comments	Functional Skills
Autumn	1	2.1.1 / 2.3.1		Units 2.1.1 and 2.3.1introduce basic concepts. Teach both of these units consecutively providing plenty of practical experience. The pre release for B063 should be used to target teaching for unit 2.3.1.	The basic concepts learned and the practical experience gained in ICT systems provides the basis of **FS 2.2** and **FS 2.3**.
	2				
	3		Practical experience with range of software.		
	4				
	5	2.1.2 , 2.3.2 and 2.3.5	Practical experience.	Units 2.1.2 and 2.3.5 cover exchanging information and networking, 2.3.2, is logically linked.	**FS2.8** requires learners to use communication software. Practical experience is essential.
	6				
	7	2.1.3 and 2.3.6	Practical use of presentation software essential.	The software experience is need for both B062 and B063.	**FS2.6 and FS2.9** requires learners to combine and present information.
	8				
	9	2.1.4 and 2.3.7	Practical delivery.	Practical experience of data handling vital before unit B062.	**FS2.7** requires learners to use software to meet the requirements of a complex data handling task. Practical ability is essential.
	10				
	11				
	12	2.1.5 and 2.3.9			
	13		Preparation for B062 controlled assessment.	Candidates should be given time for collaborative preparation for the controlled assessment.	Functional Skills in ICT is tested under examination conditions. Each learner carries out tasks independently. Research skills learnt while investigating a need would reference to **FS2.4** and **FS2.5**. While carrying out the controlled assessment learners will be demonstrating most of the functional skills criteria.
	14	2.3.3			
Spring	15		B062: Controlled assessment.	Controlled assessment to be completed under the appropriate supervision.	
	16				
	17				
	18				
	19	2.1.6 and 2.3.8		Legal, social, moral aspects of ICT use.	Not applicable.
	20				
	21	2.3.4	Project planning essential build up to:		No explicit evidence of planning is required for Functional Skills, however, the skill of analysing how ICT can be used to solve a complex task is essential (**FS2.1** and **FS2.2**). The skill of evaluating the use of ICT is also important (**FS2.10**) The level of analysis required for the GCSE exceeds that required in ICT Functional Skills.
	22		**Skills development time for unit B064/ B065.**	Candidates should be given time for collaborative preparation for the controlled assessment..	
	23				
	24		**B064/ B065** preparation time.	Controlled assessment to be completed under the appropriate supervision. Suggested deadlines will depend upon the Easter holiday timings but teachers should leave themselves sufficient time to assess the work in time for the 15th May deadline for submission of marks.	
Summer	25				
	26		**B062**: Controlled Assessment.		
	27				
	28				
	29	2.1.7 , 2.1.8, 2.1.9 and 2.3.10	These units cover ICT use, ICT and modern living and measurement and control. These are important topics for the examination, but are unlikely to be part of the controlled assessment, if they are then some modifications will be required to teach these before taking on unit B062.	The time from mid April to mid May is reserved for teacher assessment of controlled assessments.	
	30				
	31				
	32				
	33	Exam Preparation			
	34				

2.3 Delivering Functional Skills ICT alongside GCSE

Functional Skills ICT requires candidates to use ICT in practical, real life contexts. This means that it is about the application of knowledge learned to a wide range of problems, some of which may be in unfamiliar contexts. To help candidates prepare for Functional skills assessments, teaching and learning for the GCSE ICT should also focus on the application of skills in unfamiliar contexts, so that candidates are able to apply their skills to a variety of contexts they might be presented with during the Functional Skills assessment.

Generally, an embedded teaching and learning approach for the delivery of Functional Skills has been shown to be the most effective way of ensuring that candidates are fully prepared for Functional Skills assessments. A range of teaching and learning approaches that involve the use of knowledge and skills in real life situations provides the transferable skillsets needed to be successful in the assessments.

2.4 Information for Post-16 and Post-19 centres

The suggested delivery options above assume the candidates are working within a centre and are allocated a fixed period of time per week over one or two years. In Post-16 and Post-19 centres this pattern may not be appropriate and some modification to these plans is advisable. The sequence for delivering the theory content can be retained as is but it is desirable to deliver certain units before attempting the controlled assessment units. These units are indicated by the comments given above.

The controlled assessment must be carried out under supervision and should be completed within the allocated time. The assumption for the two year course is that students will have 2 hours per week hence 5 weeks are allocated to the controlled assessment. In many evening class situations there may well be more time available per session than this and the plan needs to be adjusted accordingly to ensure the controlled assessments are allocated 10 hours in consecutive sessions. Breaking the controlled assessment over a half term or other break is not advisable.

3 Centre Support

We're developing a wide range of resources to ensure there is support for you at every stage of your preparation for the new GCSE ICT 2010 specifications. In developing the support, we are talking to teachers and other key stakeholders to make sure we are offering you the most practical help we can. Below, you will find a brief guide to the support that will be available for you.

3.1 GCSE ICT Support

- Specimen assessment materials
- Specimen assessment materials (controlled)
- Guide to controlled assessment
- Guide to curriculum planning for ICT
- Teacher's handbook
- Sample schemes of work and lesson plans
- Candidate-style answers
- Options evening leaflet/Parent's Guide
- Endorsed publisher partner materials
- Controlled assessment consultancy
- Active Results
- Past papers
- Interchange
- OCR Repository
- INSET (free until December 2010)
- Continual Professional Development.

3.2 Functional Skills Support

The following support will be available for Functional Skills Curriculum Guide and exemplar activities, which are both generic and subject specific

- Candidate style answers
- Exemplar candidate work
- Online support
- Problem solving tasks developed in partnership with The Schools Mathematics Partnership (SMP) at Level 1 and 2
- Mapping third party resources for Entry Level 1 and Entry Level 2
- Past papers from our pilot qualifications
- Frequently Asked Questions

- Functional skills watch monthly electronic newsletter

- EDI

- Interchange

- INSET training.

go to www.ocr.org.uk/functionalskills for updates and the latest material.

FAQs for Functional Skills are available at **www.ocr.org.uk/qualifications/type/fs/faqs**

FUNCTIONAL SKILLS – ICT – LEVEL 2 CRITERIA

This document details the Functional Skills standards at level 2 and contains the referencing used throughout this document.

Area	Skill Standard		Coverage and Range	
Using ICT	2.1	Plan solutions to complex tasks by analysing the necessary stages	2.1.1	use ICT to plan and analyse complex or multi-step tasks and activities and to make decisions about suitable approaches
	2.2	select, interact with and use ICT systems safely and securely for a complex task in non-routine and unfamiliar contexts	2.2.1	select and use software applications to meet needs and solve complex problems
			2.2.2	select and use a range of interface features and system facilities effectively to meet needs
			2.2.3	select and adjust system settings as appropriate to individual needs
			2.2.4	respond to ICT problems and take appropriate action
			2.2.5	understand the danger of computer viruses and how to minimise risk
	2.3	manage information storage to enable efficient retrieval	2.3.1	manage files, folders and other media storage to enable efficient information retrieval
Finding and selecting information	2.4	use appropriate search techniques to locate and select relevant information	2.4.1	search engines, queries and AND/NOT/OR, >,<,>=,<=, contains, begins with, use of wild cards
	2.5	select information from a variety of sources to meet requirements of a complex task	2.5.1	recognise and take account of copyright and other constraints on the use of information
			2.5.2	evaluate fitness for purpose of information
Developing, presenting and communicating information	2.6	enter, develop and refine information using appropriate software to meet requirements of a complex task	2.6.1	apply a range of editing, formatting and layout techniques to meet needs, including text, tables, graphics, records, numerical data, charts, graphs or other digital content
	2.7	use appropriate software to meet the requirements of a complex data-handling task	2.7.1	process and analyse numerical data
			2.7.2	display numerical data in a appropriate graphical format
			2.7.3	use appropriate field names and data types to organise information
			2.7.4	analyse and draw conclusions from a data set by searching, sorting and editing records
	2.8	use communications software to meet the requirements of a complex task	2.8.1	organise electronic messages, attachments and contacts
			2.8.2	use collaborative tools appropriately
			2.8.3	understand the need to stay safe and to respect others when using ICT-based communication
	2.9	combine and present information in ways that are fit for purpose and audience	2.9.1	organise and integrate information of different types to achieve a purpose, using accepted layouts and conventions as appropriate
			2.9.2	work accurately and check accuracy, using software facilities where appropriate
	2.10	evaluate the selection, use and effectiveness of ICT tools and facilities used to present information	2.10.1	at each stage of a task and at the task's completion