# International GCSE

## Information and Communication Technology (ICT) (4IT0)

Teacher's guide

First examination 2011

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Authorised by Martin Stretton
Prepared by Lucy Stewart

# Introduction

The Edexcel International General Certificate of Secondary Education (International GCSE) in Information and Communication Technology (ICT) is designed for schools and colleges. It is part of a suite of International GCSE qualifications offered by Edexcel.

## About this guide

This guide is for teachers who are delivering, or planning to deliver, the Edexcel International GCSE in Information and Communication Technology (ICT) qualification. The guide supports you in delivering the course content and explains how to raise the achievement of your students; it should be looked at in conjunction with the following publications:

- International GCSE in Information and Communication Technology (ICT) (4IT0) specification

- International GCSE in Information and Communication Technology (ICT) (4IT0) sample assessment materials (SAMs) (which includes the mark schemes).


This guide:

- gives you an example scheme of work

- provides details of Assessment Objectives (AO) and criteria

- offers you suggestions for a range of resources.

# Contents

# Why choose this qualification?

Key features and benefits of the Edexcel International GCSE in Information and Communication Technology (ICT) qualification.

- Modern, relevant content which prepares students for Level 3 qualifications and the world of work.

- 100% examination – single assessment route allowing all students to demonstrate their knowledge, understanding and application of ICT.

- Examinations, both written and practical.

- Comprehensive and detailed description of subject content.

- Appropriate for students of various ages and from diverse backgrounds in terms of general education and lifelong learning.


Go to www.edexcel.com for more information about this International GCSE and related resources.

# Support from Edexcel

We are dedicated to giving you exceptional customer service. Details of our main support services are given below. They will all help you to keep up to date with International GCSE 2009.

## Website

Our website www.edexcel.com is where you will find the resources and information you need to successfully deliver International GCSE qualifications. To stay ahead of all the latest developments visit the microsite and sign up for our email alerts.

## Ask Edexcel

Ask Edexcel is our free, comprehensive online enquiry service. Use Ask Edexcel to get the answer to your queries about the administration of all Edexcel qualifications. To ask a question please go to www.edexcel.com/ask and fill out the online form.

## Ask the Expert

This free service puts teachers in direct contact with over 200 senior examiners, moderators and external verifiers who will respond to subject-specific queries about International GCSE 2009 and other Edexcel qualifications.

You can contact our experts via email or by completing our online form. Visit www.edexcel.com/asktheexpert for contact details.

## Regional offices

If you have any queries about the International GCSE 2009 qualifications, or if you are interested in offering other Edexcel qualifications your Regional Development Manager can help you. Go to www.edexcel.com/international for details of our regional offices.

## Training

A programme of professional development and training courses, covering various aspects of the specification and examination is available. Go to www.edexcel.com for details.

# Section A: Qualification content

## Introduction

- The Edexcel International GCSE in Information and Communication Technology (ICT) (4IT0) qualification replaces both the legacy Edexcel GCE O Level in Computing (7105) and the legacy Edexcel IGCSE in Information and Communication Technology (ICT) (4385).

- The content of the Edexcel IGCSE in Information and Communication Technology (ICT) (4IT0) qualification reflects contemporary views of the nature of ICT. Content related to computing has been removed and replaced – ensuring that this qualification is aimed at the ICT user.

- The Assessment Objectives (AOs) have been streamlined from five to three and are aligned with those used in the current Edexcel GCSE in ICT. The weightings of the AOs are now the same for all students.

- Content has been updated and reorganised, incorporating functional ICT elements. The fast-changing nature of ICT has been recognised and learning outcomes (LOs) have been selected with the aim that they will remain relevant for several years.

- Tiers have been removed. All students will now sit the same examinations, removing the need to select a tier of entry some months in advance.

- The written paper remains 1 hour 30 minutes. A new Section A, with 16 multiple-choice questions, has been included.

- Coursework has been replaced with a practical computer-based examination, taken under controlled conditions. This addresses concerns voiced about inequalities in computing time and facilities for students carrying out coursework. The practical examination requires students to use a range of software to complete tasks related to a scenario.

- Weighting between the written paper and practical paper has been changed to 50:50 (rather than 70:30 written paper to coursework as previously). With the equalisation of the two papers, the weighting of AO1 has been reduced. The weighting of AO2 has been increased.

# Information for Edexcel centres

The learning outcomes, defining the content of the whole qualification, are assessed through a written paper, a practical paper or both. The method of assessment for each learning outcome is indicated in the specification and in the table below. This information should make it easier for teachers to develop effective teaching strategies for the course. The detailed subject content provided in the specification and the sample assessment materials should also be used for this purpose.

## Changes to content from Edexcel O Level/International GCSE (7105/4385) to this qualification

The table below sets out the relationship between the legacy O level/International GCSE qualification (7105/4385) to this qualification.

It shows how each of the legacy Edexcel International GCSE in ICT (4385) learning outcomes have been updated and developed in this qualification (4IT0). The equivalent sections of the legacy Edexcel GCE O Level (7105) specification are also indicated. Since the O Level content is set out in a different format to that of the International GCSE, some O Level sections map to more than one International GCSE learning outcome.

Where the 'This qualification (4IT0) learning outcomes' column is blank, there is no specific mapping from the Edexcel International GCSE in ICT (4385) learning outcome, or the material has been deleted or restricted to a small section of the original. New material included in the specification is also shown in the table.

| Legacy International GCSE (4385) content/ *O Level (7105) content\** | This qualification (4IT0) learning outcome | This qualification (4IT0) content changes | Written/ practical assessment |
|---|---|---|---|
| LO1: Identify the constituent parts of an ICT system and their function. Select appropriate input/output and storage media and devices for a given application. *1.1 The range and scope of computer applications* *1.2 Hardware* *1.3 1.5 Software.* | LO1 LO2 LO23-28 | System types and uses have been added. Hardware and software have been updated. Software use will be tested in the practical examination. | Written Practical |
| LO2: Explain the key role of the central processing unit. | LO4 | Now limited to selecting an appropriate type/speed of processor for a system. | Written |
| LO3: Interpret the internal representation of data in an ICT system. *1.2 Hardware/storage.* | LO3 | Storage capacity and terms only. *Bit patterns and codes are deleted*. | Written |

\*All references to the legacy Edexcel GCE O Level (7105) content is indicated by the text in italics.

| Legacy International GCSE (4385) content/ *O Level (7105) content\** | This qualification (4IT0) learning outcome | This qualification (4IT0) content changes | Written/ practical assessment |
|---|---|---|---|
| LO4: Describe the key functions of the operating system. *1.5 Software/The operating system.* | LO4 | Operating system considered as part of a system. Selection of an appropriate type for a given application. *Detailed functions are deleted.* | Written |
| LO5: Recognise and use file handling terms. *1.4 File and data types.* | LO15 LO18 | Restricted to typical file management activities in a WIMP environment. Creating backups. | Written Practical |
| LO6: Give reasons for encoding data and information for computer processing and relate this operation to a given application. | LO28 LO29 | Restricted to the use of codes within the practical examination. | Practical |
| LO7: List and describe in outline the main aspects of system analysis and relate these to a given application. *2.2 System analysis and design.* | | System analysis as a topic has been deleted. Some components may be tested as part of other topics. For example a piece of work may be evaluated. | Written Practical |
| LO8: Use data capture operations and relate these to a given application. *2.1 Key features of an information system.* *2.2 System analysis and design/data capture.* | | Data capture operations are restricted to practical aspects, for example setting up validations in the practical examination. | Practical |
| LO9: Specify the output for a given application. LO10: Specify and create the files necessary for a given application. *2.1 Key features of an information system.* *2.2 System analysis and design/data capture.* | | *Output specification and file creation are restricted to practical aspects,* for example producing an appropriate output in the practical examination. | Practical |

**\***All references to the legacy Edexcel GCE O Level (7105) content is indicated by the text in italics.

| Legacy International GCSE (4385) content/ *O Level (7105) content** | This qualification (4IT0) learning outcome | This qualification (4IT0) content changes | Written/ practical assessment |
|---|---|---|---|
| LO11: Develop an algorithm (series of commands) to solve a problem. *2.3 Algorithms and software design.* | LO28 | Algorithms are limited to simple macros in the practical examination. | Practical |
| LO12: Explain the need for testing, and design the testing procedures for a given application. | | Simple forms of testing, for example validation, spell check or proof reading, may be required in the practical examination. | Practical |
| LO13: Document the solution to a problem. *2.2 System analysis and design.* *2.4 System implementation.* | LO32 | Documentation will be restricted to the appropriate presentation of information in the practical examination. | Practical |
| LO14: Evaluate the solution to a problem. *2.4 System implementation.* | LO21 LO34 | The emphasis will be on assessing fitness for purpose. | Written Practical |
| LO15: Use input validation techniques and relate them to a given application. *2.2 System analysis and design/data capture.* | LO29 | Restricted to use of validation in the practical examination. | Practical |
| LO16: Present results for different target audiences. | LO32 | The emphasis will be on appropriate methods of presenting of information for a given target audience. | Practical |
| LO17: Explain the need for backup procedures and identify suitable techniques for recovery. LO18: Describe methods of security. *2.2 System analysis and design/backup design.* *1.6 Social and economic aspects of the use of computer systems.* | LO18 | Backup requirements have been reduced in scope and are now considered under methods of safeguarding information. | Written |

**\***All references to the legacy Edexcel GCE O Level (7105) content is indicated by the text in italics.

| Legacy International GCSE (4385) content/ *O Level (7105) content\** | This qualification (4IT0) learning outcome | This qualification (4IT0) content changes | Written/ practical assessment |
|---|---|---|---|
| LO19: Demonstrate an appreciation that ICT systems should be designed to communicate with humans. *1.5 Software/the human computer interface.* | LO4 LO14 | Restricted to the context of selection of appropriate systems or system components. Tested by the selection and use of appropriate interface features in the practical examination. | Written Practical |
| LO20: Describe the use of modelling in an ICT system. LO21: State the benefits and limitations of models and simulations. *1.1. The range and scope of computer applications.* | LO1 LO28 | Students should be able to describe what modelling is and give examples of its use. Otherwise, modelling is restricted to simple calculations in the practical examination. | Written Practical |
| LO22: Describe the social, economic, legal and moral effects of using ICT systems. *1.6 Social and economic aspects of the use of computer systems.* | LOs11-13 LOs16-19 | LO22 from (4385) has been expanded and forms a larger part of the content of (4IT0). Each part of LO22 (4385) is now a separate learning outcome in (4IT0) and includes additional content. | Written |
| LO23: Describe the concepts of data logging and control technology. *1.1. The range and scope of computer applications.* | LO2 | Students should be able to describe what control software is and give examples of its use. | Written |
| LO24: Use the terms local area network (LAN) and wide area network (WAN). Describe the hardware and software requirements for the formation of a network. *1.3 Communications.* | LO5 | Networking has been updated. Older types of network hardware, for example Bridges and hubs have been deleted. | Written |

**\***All references to the legacy Edexcel GCE O Level (7105) content is indicated by the text in italics.

| Legacy International GCSE (4385) content/ *O Level (7105) content** | This qualification (4IT0) learning outcome | This qualification (4IT0) content changes | Written/ practical assessment |
|---|---|---|---|
| LO25: Explain the advantages and disadvantages of networked computers compared to stand-alone computers.<br><br>LO26: Identify the differences in network topologies.<br><br>*1.3 Communications.* | LO6 | Networking has been updated.<br><br>The benefit of networking has been expanded. Disadvantages are deleted.<br><br>Network topologies are deleted. | Written |
| LO27: Identify the advantages and disadvantages of different communication methods.<br><br>*1.3 Communications.* | LO9 | Only network-based communication methods are included. The use and suitability of these methods also forms part of other learning outcomes. | Written |
| LO28: Identify requirements for connecting to the internet.<br><br>*1.3 Communications.* | LO8 | Internet connection has been updated with the inclusion of WiFi methods. | Written |
| LO29: Identify the features of common internet services.<br><br>*1.3 Communications.* | LO9<br>LO10 | The internet services section has been updated and expanded into two learning outcomes, to take account of the growth in importance of the internet. | Written |
| LO30: Identify, with reasons, the advantages and disadvantages of the internet as a source of information.<br><br>*1.3 Communications.* | LO19<br>LO20<br>LO21<br>LO22 | LO30 from (4385) has been expanded and forms a larger part of the content of (4IT0).<br><br>The emphasis is now on personal safety, data protection, and the ability to select and evaluate sources of information. | Written<br>Practical |
| New material | LO7 | Network security. | Written |
| | LO23-27 | Use of a range of software tools. | Written<br>Practical |

**\***All references to the legacy Edexcel GCE O Level (7105) content is indicated by the text in italics.

## Information for centres starting the Edexcel International GCSE for the first time

- **Assessment is software independent**. Most centres will be able to use their existing software for the practical aspects of the course.

  Typically this will include a database, spreadsheet, word processor, desktop publishing, web authoring, image editing, video editing, audio editing, and multi-media presentation package.

  For those centres that do not have one or more of the packages, open source or freeware material is available. Details can be found on the Edexcel website on the International GCSE ICT pages under *Resource Toolkit*.

- **Assessment is split evenly between knowledge and understanding, and practical skills**. The specification acknowledges the growing need for ICT practitioners who are proficient in using ICT software and who understand ICT systems, but who are unlikely to become involved in programming or software development. Teachers will not need any programming or scripting knowledge beyond that required to use their chosen software packages.

- **Assessed skills are transferable**. Many of the skills assessed will be useful to students in different subject areas. A successful student will develop the following skills.

  - Practical skills in using a range of software packages. These skills should enable them to teach themselves to work with other packages.

  - Research skills, which should enable them to conduct and critically evaluate research in other areas.

  - Communications skills, which should enable them to communicate in an appropriate manner with different types of audience.

# Section B: Assessment

## Assessment overview

The table below gives a simple overview of the assessment for this course.

We recommend that you make this information available to students to help ensure they are fully prepared and know exactly what to expect in each part of the assessment.

| Paper 1 | Percentage | Marks | Time | Availability |
|---|---|---|---|---|
| Written paper<br><br>Paper code: 4IT0/01 | 50% | 100 | One hour and 30 minutes. | June examination series only<br><br>First examination June 2011 |

| Paper 2 | Percentage | Marks | Time | Availability |
|---|---|---|---|---|
| Practical paper<br><br>Paper code: 4IT0/02 | 50% | 100 | Three hours, including printing time.<br><br>To be completed in a single session during a one-week examination window in May.<br><br>Detailed instructions for the conduct of the practical examination (ICE document) will be issued annually. Example instructions are included in Appendix 2 of the specification. | June examination series only<br><br>First examination June 2011 |

## Assessment Objectives and weightings

| | % in International GCSE |
|---|---|
| **AO1: Knowledge and understanding**<br><br>• students should be able to demonstrate knowledge and understanding of the specification content | 20-40% |
| **AO2: Application**<br><br>• students should be able to apply their knowledge, skills and understanding of ICT to a range of situations to solve problems | 40-60% |
| **AO3: Evaluation**<br><br>Students should be able to:<br><br>• reflect critically on the way they and others use, create or develop ICT systems<br><br>• discuss and review the impact of ICT applications in the wider world. | 20-30% |
| **Total** | **100%** |

# Assessment summary

| Paper 1 | Description | Knowledge and skills |
|---|---|---|
| **Written paper**<br><br>**Paper code: 4IT0/01** | There are two parts to the paper.<br><br>Section A consists of 16 multiple-choice questions.<br><br>Section B consists of short-answer questions, which may have multiple parts.<br><br>The questions will be graded and arranged in order of increasing difficulty. All questions should be answered – there is no choice of questions.<br><br>The examination is untiered and is aimed at students across the ability range A* to G.<br><br>Only those learning outcomes identified in the specification as being assessed in Paper 1 (written) will be tested. | The Assessment Objectives (AOs) covered in Paper 1 (50% total) are:<br>AO1: between 20 and 30%<br>AO2: between 10 and 20%<br>AO3: between 10 and 15%<br><br>Students will need a knowledge of:<br><br>• ICT systems and components, including network systems<br><br>• the impact of ICT on everyday life<br><br>• the internet and issues associated with it.<br><br>Students will need to select, evaluate and present information in appropriate ways. |
| **Paper 2** | **Description** | **Knowledge and skills** |
| **Practical paper**<br><br>**Paper code: 4IT0/02** | The paper consists of structured practical activities using different types of software.<br><br>The software packages tested in each examination are:<br><br>• spreadsheet software<br><br>• database software<br><br>• graphics software<br><br>• multimedia presentation software<br><br>• desktop publishing/word processing software.<br><br>There will be a common theme to the activities but each activity is independent of the others.<br><br>There is no choice of activities and they should be attempted in the sequence given. Tasks within the activities must be completed in the stated order.<br><br>The examination is untiered and is aimed at students across the ability range A* to G.<br><br>Only those learning outcomes identified in the specification as being assessed in Paper 2 (practical) will be tested. | The Assessment Objectives (AOs) covered in Paper 2 (50% total) are:<br>AO1: between 0 and 10%<br>AO2: between 30 and 40%<br>AO3: between 5 and 15%.<br><br>Assessment of the practical examination is software independent. Students can use any hardware, operating system and applications packages in the practical examination.<br><br>Students will need practical experience of using a range of software, to include the items described in learning outcomes 23 to 33 of the specification.<br><br>Students will need to justify their choice of techniques and evaluate the results of their work. |

# Examination questions

## Paper 1: Written paper

One hour and 30 minutes, written examination.

The following questions are taken from the sample assessment materials (available from the Edexcel website).

### Section A, 16 multiple-choice questions

Each question gives a choice of four answers, A – D. In the examination, students will be expected to put a cross in the box to mark their answer.

All the questions are compulsory.

This section of the paper is a lead in to the context questions in Section B.

**1.** ICT devices can be classified as input, output or storage.

|   | **Scanner** | **CD-R** |
|---|---|---|
| **A** | input | output |
| **B** | input | storage |
| **C** | output | input |
| **D** | storage | input |

Which row in the table is correct for a scanner and CD-R?

☒ **A**

☒ **B**

☒ **C**

☒ **D**

**(Total 1 mark)**

**Examiner's comment**

This is the first question on the paper and is designed to be accessible to all students.

The correct answer is B.

**8.** Parents with small children want to stop their children from accessing inappropriate websites on the internet.

They can do this via:

☒ **A**    a filter

☒ **B**    a web browser

☒ **C**    encryption software

☒ **D**    a firewall

**(Total 1 mark)**

**Examiner's comment**

This question is from half way through Section A. Most students will be familiar with the context of the problem, but they will need an understanding of the functions of each software choice. They will also need to be aware that some commercial products are multi-functional but are advertised under the name of one function. For example, a firewall may include filter functions, or a browser may have encryption facilities added.

The correct answer is A.

**16.** An advantage of using web-based email, rather than client-based email is that:

☐ **A**    it allows you to send to multiple recipients

☐ **B**    it allows attachments to be sent

☐ **C**    it is more secure

☐ **D**    it can be accessed from any computer connected to the internet

**(Total 1 mark)**

**Examiner's comment**

This is a question from the end of Section A and is slightly more challenging. Most students will have used email and should learn about the difference between web-based and client-based email in order to respond correctly.

The correct answer is D.

## Section B, short-answer questions.

All the questions are compulsory.

**17.** (a)   The table below shows a list of devices.

For each device put a cross in the correct box to show whether it is used for input, output or backing storage.

| Device | Input | Output | Backing Storage |
|---|---|---|---|
| Memory stick | ☒ | ☒ | ☒ |
| Printer | ☒ | ☒ | ☒ |
| Mouse | ☒ | ☒ | ☒ |
| Hard disk | ☒ | ☒ | ☒ |
| Webcam | ☒ | ☒ | ☒ |
| Plotter | ☒ | ☒ | ☒ |
| Light pen | ☒ | ☒ | ☒ |

**(7)**

(b)   A computer system uses two types of software. One type is system software.

Name the other type.

.................................................................................................................................

**(1)**

**(Total 8 marks)**

**Model answers**

The correct answers for both parts of the question are given below.

(a)

| Device | Input | Output | Backing Storage |
|---|---|---|---|
| Memory stick | ☒ | ☒ | ☒ |
| Printer | ☒ | ☒ | ☒ |
| Mouse | ☒ | ☒ | ☒ |
| Hard disk | ☒ | ☒ | ☒ |
| Webcam | ☒ | ☒ | ☒ |
| Plotter | ☒ | ☒ | ☒ |
| Light pen | ☒ | ☒ | ☒ |

(b) Application software.

**Examiner's comment**

This is the first question in Section B of the paper and is designed to be accessible to all students.

**20.** An ICT teacher sets his class a quiz which requires them to find out information from the internet. The class is told about a number of different ways to find information, for example, using a search engine.

(a) One of the quiz questions is 'Which type of tree has the biggest leaves?'.

One student enters 'biggest leaves' into a search engine and gets 34654 results. Most of the results have nothing to do with the required information.

Give **four** methods that the student could use to **reduce the number of results** given by the search engine.

Method 1 ............................................................................................................

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Method 2 ............................................................................................................

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Method 3 ............................................................................................................

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Method 4 ............................................................................................................

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**(4)**

(b) Apart from the number of results, state **two** problems which the students might encounter when using the internet as a source of information.

Problem 1 ...........................................................................................................

Problem 2 ...........................................................................................................

**(2)**

(c) Other than using a search engine, give **two** ways the students could use the internet to find the necessary information.

1 ........................................................................................................................

2 ........................................................................................................................

**(2)**

(d) The teacher puts the correct answers to the quiz on the school intranet.

Explain **three** differences between the internet and an intranet.

1 ..............................................................................................................................

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2 ..............................................................................................................................

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3 ..............................................................................................................................

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**(3)**

**(Total 11 marks)**

**Model answers**

Correct answers for all parts of the question are given below. The mark scheme in the sample assessment materials gives further information on the range of acceptable answers.

(a) Method 1: By using brackets () to keep key words and phrases together

Method 2: By the use of logic/syntax ie AND, OR, NOT

Method 3: By specifying no foreign language sites

Method 4: By using key words

(b) Problem 1: Information may be out-of-date

Problem 2: Information may be inaccurate, false or misleading.

(c) 1. By using an online encyclopaedia

2. By using a general information/resource site such as the BBC

(d) 1. The internet is accessible by everyone across the globe, whereas an intranet is limited to certain users – such as an organisation.

2. An intranet is controlled by a network manager. The internet is uncontrolled.

3. An intranet runs known system (HW, SW)/compatibility. The internet is only compatible through use of protocols such as HTML, FTP

**Examiner's comment**

This is a question from the second half of Section B. It is contextualised and increases in difficulty. Most students will be familiar with the context of the problem, but they will need to know how to get the best results from a search engine.

**Part (a)**

In this type of question, where multiple answers are required, students must ensure that they do not simply repeat the same answer in different ways. For example, giving the use of logic/syntax as:

> Method 1. Using AND
>
> Method 2. Using OR
>
> Method 3. Using NOT

Students must give four different methods – each gaining them a mark. As the command word is 'give' students need not explain the different methods.

**Part (b)**

Part (b) is more demanding than part (a) because the range of possible answers is more open ended. Again, the command word is simply 'state' so students need not spend time explaining their answers and why this is a problem.

**Part (c)**

Part (c) is more challenging again. Students may have a favourite search engine but will need to be aware of other resources to answer fully.

**Part (d)**

The final part of the question is the most difficult. The question uses the word **explain**, this indicates to the student that a more complete answer is required than in the parts (a), (b), and (c). The subject material is also more difficult, and students need to be fully aware of the terms internet and intranet.

## Paper 2: Practical paper

Three hours (including printing time) practical examination. Details of printing and ordering can be found in the Instructions for the Conduct of the Examination (ICE) document on the Edexcel website.

The following questions are taken from the sample assessment materials (available from the Edexcel website). The sample assessment datafiles will be available on the website.

The paper consists of a number of practical activities, based on a common theme described in the scenario. All the activities are compulsory, but they are independent of each other. They should be attempted in the sequence set. The tasks in each activity must be worked through in order. A table will be given on the first page of the paper to show the breakdown of activities and marks. Below is an example, taken from the SAM, however the order of activities, and mark distribution may change year on year.

| Activity | Marks |
| --- | --- |
| 1. Using art/imaging and graphics software | 15 |
| 2. Using spreadsheet software | 25 |
| 3. Using DTP/WP software | 20 |
| 4. Using database software | 22 |
| 5. Using multimedia software | 18 |
| **Total Marks** | **100** |

### Scenario

*Train Travellers* offers a wide range of luxury package holidays for steam train enthusiasts from England.

The company is based in London but can arrange visits to steam train locations anywhere in the world. It organises the travel, reserves the accommodation and offers optional activities.

Each group is limited to a maximum of 24 people and is accompanied by a guide provided by *Train Travellers*. Sometimes small groups of people book together to go on a tour. Children are welcome if travelling with an adult.

At the start of each holiday, *Train Travellers* provides a driver and limousine to take clients from their homes to the nearest mainline railway station. From there they travel by train to a meeting point where they join the guide and other members of their group.

The meeting point for international travel is in London. For journeys within Europe travel from London is then by train. For more distant destinations travel is by air. For tours that stay in Britain, the meeting point could be a suitable railway station outside London.

### Examiner's comment

The scenario sets the context for the practical activities and is given at the start of the examination paper. It is essential that students read it carefully as the information in the scenario will help them to complete the activities. The scenario is not pre-released.

**Activity 5 – Using multimedia software**

**Task MM1**

You have been asked to make a multimedia presentation for *Train Travellers*. It will be shown to travel agents who will be promoting the holidays the company offer.

You must design and create a master slide, the title slide and two other slides. You will need the graphics from the files **TRAIN IMAGES**, **HOTEL IMAGES** and/or **LOGO** and information about the holidays from any part of the question paper.

Read the whole of the activity before you begin.

You may use the boxes below to sketch designs for the slides. You do not need to submit your sketched design. There are no marks allocated for the sketched design.

**(Four labelled boxes would appear here for students to use for their design sketches.)**

(a) Use presentation software to create the master slide. It should include:

    (i) the *Train Travellers* logo

**(1)**

    (ii) any other information that will appear on every slide

**(1)**

> **Save the presentation as AGENTS.**

**Examiner's comment**

The *Train Travellers* logo is included in the datafiles supplied by Edexcel. Datafiles are unique to each examination series. A new set of datafiles for each year's examination will be available at the start of the examination window. Information relating to saving and printing work is highlighted for increased visibility. Students must follow these instructions in the order in which they appear in the task to ensure the correct work required for marking is captured appropriately.

Each activity has tasks that are set in increasing difficulty. The first part, as above, is designed to be accessible to all students.

**The correct answer to MM1 part (a), as given in the mark scheme is:**

Master slide includes:

- Train Travellers logo (1 mark)

Master slide includes any other item of information from:

- presentation for travel agents
- brief information about holidays
- brief information about the company.

**1 mark for any one item**.

(b)  Create the title slide (slide 1). It should include:

    (i)   a title for the presentation

                                                                 **(1)**

    (ii)  **one** additional item of information

                                                                 **(1)**

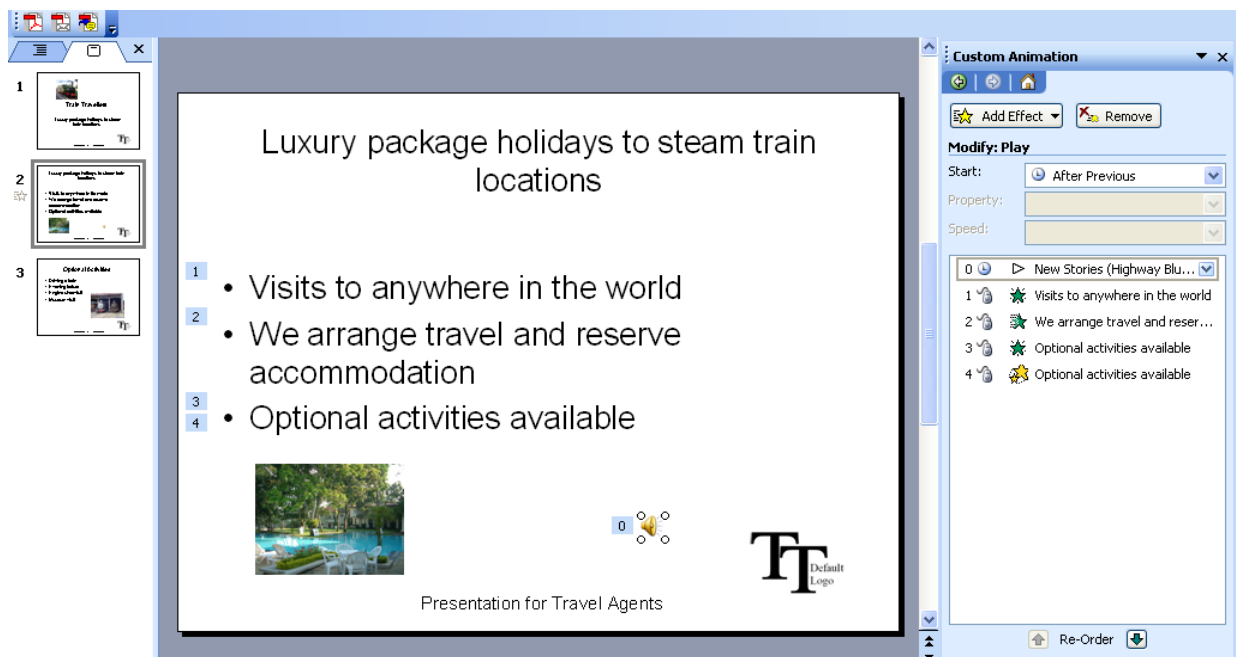    (iii) **one** graphic from the files **TRAIN IMAGES** and/or **HOTEL IMAGES**

                                                                  **(1)**

| **Resave the presentation.** |
| --- |

**Examiner's comment**

The files **TRAIN IMAGES** and **HOTEL IMAGES** are included in the sample assessment datafiles.

Part (b) is slightly harder than part (a) in that it requires students to make decisions about what to include. It is an example of where it is important for students to have read the scenario. Students should be alert to instructions given at the start of the activity, such as 'information about the holidays from any part of the question paper' which indicate that information to complete the tasks in the activity should be accessed from areas such as the scenario.

The marks are for the inclusion of suitable items, rather than any artistic merit.

A student's work at this stage might look like this on their screen.

**The correct answer to MM1 part (b), as given in the mark scheme is:**

(i) Title slide includes:

A title for the presentation such as:

- Train Travellers holidays
- Luxury Steam Train Trips

**1 mark for any one item**.

(ii) Any additional item of information from:

- presentation for travel agents
- date
- presenter.

Accept any sensible alternative

**1 mark for any one item**.

(iii) One graphic from TRAIN IMAGES/HOTEL IMAGES (1 mark).

(c) Create slide 2 using appropriate presentation features, such as entry effects, sound, graphics.

The slide must list **three** topics to be included in the presentation.

**(2)**

**Resave the presentation**.

**Examiner's comment**

The presentation effects will be assessed in the second part of the activity, MM2.

The marks here are still for content and again should be accessible to all students as long as they have read the scenario.

**The correct answer to MM1 part (c), as given in the mark scheme is:**

**Slide 2** includes:

Any **three** topics to be included in the presentation from:

- based in London
- visits anywhere in the world
- organises the travel, reserves the accommodation, optional activities
- provides a driver and limousine to take clients to meeting point
- luxury package holidays
- for steam train enthusiasts
- worldwide
- limited to 24 people
- accompanied by guide
- children welcome with an adult.

Allow 2 marks for three appropriate topics; **OR** 1 mark for two appropriate topics.

(d) Create slide 3. This slide must relate to one of the topics identified in slide 2.

    (i)   Use a suitable title.

                                                                   **(1)**

    (ii)  Use appropriate text to illustrate one of the topics from your list.

                                                                     **(1)**

    (iii) Include at least **one** graphic from **TRAIN IMAGES** and/or **HOTEL IMAGES** to explain the topic.

                                                                     **(1)**

**You do not need to include presentation features on this slide.**

> **Resave the presentation.**
>
> Set up slides 1 to 3 to print on **one A4 sheet**:
>
> ➢ enter **MM1** in the header
>
> ➢ enter your name, candidate number and centre number in the footer
>
> **PRINT** slides 1 to 3 on **one A4 sheet**.

                                            **(Total for task MM1: 10 marks)**

**Examiner's comment**

The marks for part (d) are again for content therefore accessible to all students if they have read the scenario.

At this stage students should be careful not to lose a mark by failing to relate the slide to the one created in part (c) of the activity.

It is expected that students will have practiced setting up different printing methods during the course and that all students will be capable of printing their slides in the prescribed format. There are no marks for the print format in this activity but correct page setup and printing is likely to be assessed in word processing and desktop publishing activities.

The total marks for the whole of the task – parts (a), (b), (c) and (d) – are given at the end of the task. In this case the total is 10 marks.

**The correct answer to MM1 part (d), as given in the mark scheme is:**

(i)  Slide 3 includes:

- A title relating to one of the items in slide 2 (1 mark).

(ii) Slide 3 includes:

- Text to illustrate the item (1 mark).

(iii) Slide 3 includes:

- At least one graphic from TRAIN IMAGES/HOTEL IMAGES (1 mark).

**Task MM2**

> Open a new A4 document using word processing software:
>
> ➢ enter **MM2** in the header
>
> ➢ enter your name, candidate number and centre number in the footer of the document
>
> ➢ save the document as **MM2**

(a) Copy the master slide from your presentation **AGENTS** into the document:

> ➢ insert a border round the slide

Below the master slide, explain and justify **one** of the items you have included.

**(2)**

**Examiner's comment**

The border is asked for so that the extent of the slide is clear; there are no marks for inserting the border. The explanation and justification requirements make this activity more challenging than the ones in MM1.

**The correct answer to MM2 part (a), as given in the mark scheme is:**

Master slide:

- Explanation of one item included in it (1 mark)
- Justification of the item (1 mark).

(b) In your presentation **AGENTS**, display slide 2 so that you can see the transition effects used.

Create a screen shot:

(i) paste the screen shot into the word processing document MM2

**(1)**

(ii) make sure the transition effects can be seen clearly

**(1)**

**Note:** You may be using software that does not allow you to show the transitions on a screen shot. If so, you should create a screen shot of the slide, paste into the word processing document MM2 and indicate by hand what transitions you have used.

**Examiner's comment**

The note about software is included because the examiners cannot know what software will be used in the examination. Most presentation software will allow a suitable screen shot.

**The correct answer to MM2 part (b), as given in the mark scheme is:**

(i) Slide 2

- Screen shot of slide 2 (1 mark)

(ii) Slide 2

- Transitions visible (1 mark)

(c) Below the screen shot.

    (i)   Name **one** of the presentation features that you have used in slide 2.

                                                                                      **(1)**

    (ii)  Explain how the presentation feature works.

                                                                                      **(1)**

    (iii) Explain briefly why your presentation is fit for purpose as a presentation to be shown to travel agents.

                                                                                      **(2)**

> **Resave the document as MM2.**
>
> **PRINT** one copy of the document.

**(Total for task MM2: 8 marks)**

**TOTAL FOR ACTIVITY 5: 18 MARKS**

**Examiner's comment**

The requirement for explanations should indicate to the students that a fuller answer is required.

The total for the task is given, as well as the total marks for the activity – task MM1 and MM2 combined – indicating the completion of that activity.

**The correct answer to MM2 part (b), as given in the mark scheme is:**

(i)   Slide 2 – Name of one presentation feature used from:

- sound recording
- description of effects, such as entrance, exit, emphasis, motion path
- order of transition
- timings.

    **1 mark for any one item**.

(ii)

- Appropriate discussion/explanation of impact of presentation feature named above. (1 mark)

(iii) Complete presentation – Justification of how the presentation is fit for purpose as a presentation for travel agents. Two points from:

- clear information
- shows luxury aspect
- shows that it is steam trains
- keeps interest by using presentation features
- clear screens enable clear information.

    Accept any other sensible comment.

    **1 mark per item to a maximum of 2 marks**.

## Using the mark scheme

The mark scheme gives the responses we expect from students. Indicative answers are given but during the standardisation of examiners process the mark scheme is updated and expanded to cover unexpected, correct student responses.

# Section C: Planning and teaching

## Course planner

This course planner is a guide to only one possible route through the course content. Teachers should adapt and expand it to meet their own requirements.

The planner is based on a two-year, five-term course, with the examinations taking place in the sixth term. The learning outcomes (LOs) assessed in the written paper are identified in the planner. Practical activity should run alongside the theoretical content throughout the course. Linking theory and practice will help students to develop their understanding across the specification.

Students should have the opportunity to use a range of packages to include database, spreadsheet, word processor, desktop publishing, web authoring, web browsing, email software, image editing, video editing, audio editing, and multi-media presentation during the course. The practical examination is worth 50 per cent of the overall mark and students should be given sufficient time to become proficient in the use of the software packages.

Learning outcomes 14 and 24-33 are tested only in the practical examination and should be covered while teaching students how to use the packages. Students should be encouraged to reflect on the outcomes of their use of packages with respect to their fitness for purpose.

## Term 1 of 5

| Content | Notes |
|---|---|
| ICT types of system and their uses<br><br>Hardware: inputs, outputs, processing and storage<br><br>Software: applications and system<br><br>Select appropriate ICT systems for user needs<br><br>Learning outcomes 1, 2, 3, 4 and 23. | Students should:<br><br>• be able to select appropriate systems, devices, and software for a given task<br><br>• be able to justify their choices in terms of the requirements of the task<br><br>• have the opportunity to see and use a range of systems, other than a standard PC. |

## Term 2 of 5

| Content | Notes |
|---|---|
| Linking of ICT devices<br><br>Networks: types, components and benefits<br><br>Network security<br><br>Risks to data – deletion, damage<br><br>Ways to secure data – backups, passwords, access<br><br>Facilities and services on intranets<br><br>Learning outcomes 5, 6, 7, 10, 17 and 18. | Students should:<br><br>• be able to select appropriate systems, devices, and software for making a network for a given situation<br><br>• be able to justify their choices in terms of the requirements of the task<br><br>• have the opportunity to see and use an intranet<br><br>• have the opportunity to connect devices together<br><br>• have an understanding of the security implications of connecting devices together<br><br>• have an understanding of the benefits of connecting devices together. |

## Term 3 of 5

| Content | Notes |
|---|---|
| Connecting to the internet<br><br>The internet – services<br><br>Internet safety and security<br><br>Risks to data: viruses<br><br>Security of data: anti-virus software, firewalls<br><br>Learning outcomes 7, 8, 9, 17, 18 and 19. | Students should:<br><br>• have an understanding of the security implications of connecting a device to the internet<br><br>• know how to keep themselves and others safe while using the internet<br><br>• be able to select appropriate systems, devices, and software for making a connection to the internet for a given purpose<br><br>• be able to justify their choices<br><br>• have the opportunity to set up an internet connection<br><br>• have the opportunity to use a range of internet services. |

## Term 4 of 5

| Content | Notes |
|---|---|
| The impact of ICT on individuals, organisations and society<br><br>Legal issues<br><br>Legal constraints<br><br>Health and safety<br><br>Learning outcomes 11, 12, 13 and 16. | Students should:<br><br>• have an understanding of how ICT affects them personally and how it affects other individuals<br><br>• have an understanding of how ICT affects organisations that they belong to and how it affects other organisations<br><br>• have an understanding of how ICT affects their own community and society as a whole<br><br>• have an understanding of health and safety issues which arise from the use of ICT<br><br>• have an understanding of the legal issues that affect the use of ICT, and be aware that laws relating to the use of ICT vary between countries<br><br>• know about the legal constraints that apply to the use of information. |

## Term 5 of 5

| Content | Notes |
|---|---|
| File management<br><br>Select appropriate sources and information that matches requirements<br><br>Search techniques<br><br>Selection of appropriate software<br><br>Refine and evaluation of information solutions<br><br>Learning outcomes 15, 20, 21, 22, 23 and 34. | Students should be able to:<br><br>• select appropriate sources of information<br><br>• conduct searches to find information<br><br>• extract relevant information from a source<br><br>• critically compare sources of information<br><br>• evaluate information sources in terms fitness for purpose<br><br>• organise information<br><br>• present information in an appropriate way for a given purpose<br><br>• evaluate their own performance and that of others. |
| Revision and preparation for examinations. | |

# Teaching ideas

## Preparation for Paper 2

In order to prepare for the practical examination, students should be given the opportunity to develop and practice the skills that will be assessed. During the examination students will need access to a desktop computer on a one-to-one basis. The computer must be capable of running software appropriate to the specification. The list of software applications includes:

- art/imaging and graphics software

- spreadsheet software

- word-processing software

- database software

- multi-media/presentation software.

During the examination itself, students should not be allowed access to email, internet or intranet services.

A key element of the assessment is that students need to be fully aware that their details must be entered onto documents before printing. Handwritten details are not acceptable and work submitted without printed student details is given zero marks for the task. It has been noted in other similar examinations (such as Edexcel's GCSE in Applied ICT) that, where students have been taught to enter their details as a routine procedure during 'normal' work, this is not usually a problem in the examination environment.

In developing skills, students can be given activities that are similar to the sample assessment materials available on the Edexcel website (www.edexcel.com/igcse2009).

Timed assessments can be given to develop the awareness of the need to work efficiently. Students should be encouraged not to spend too long on early tasks and leave themselves short of time for later activities. They should also be encouraged to move on if they become stuck in an activity. It is recommended that at least one full three-hour practise session be given to students to help them prepare for the assessment.

# Resources

**Please note that, while resources are checked at the time of publication, websites may change at any time.**

Teachers may find the following websites useful.

| | |
|---|---|
| www.teach-ict.com | This website contains many free resources for use in many different ICT courses. There are revision quizzes, theory sections, news articles and video tutorials on the basics of most common software applications. |
| www.learnthat.com/computers | A range of tutorials for most major software applications including Microsoft Office and Dreamweaver, Flash and Photoshop. |
| www.pctechguide.com | Covers all aspects of the computer and its component parts. |
| www.ict4lt.org/en/en_glossary.htm | A comprehensive glossary of ICT terminology with links to other resources if you cannot find what you need there. |
| www.officetutorials.com | A site offering free downloadable tutorials for most (mainly Microsoft) software products. |
| www.edexcel.org.uk/VirtualContent/72385/ MS_REV_ICT.pdf | Candidate Kit for the Applied ICT GCSE (Code 2331) course. The 2331 course has a similar practical component as part of the assessment. This candidate kit includes skills checklists for a similar range of applications as tested in this specification. |
| www.edexcel.org.uk/VirtualContent/72385/ VGCSE_ICT_Activity_Booklet_2004___2005 .pdf | The Activity Booklet for Applied ICT GCSE (code 2331) includes a range of tasks using office applications software similar to the list of applications for this specification. |