



# Specification

**Edexcel GCSE in Information and  
Communication Technology (ICT) (2IT01)**

**Edexcel GCSE in Information and  
Communication Technology (ICT)  
(Double Award) (2IT02)**

**For first certification 2014**

**Issue 2**

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# Introduction

The Edexcel GCSE in ICT and GCSE in ICT (Double Award) qualifications are designed for use in schools and colleges. They are part of a suite of GCSE qualifications offered by Edexcel.

## About this specification

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Key features and benefits are:

- up-to-date, engaging content
- clear and flexible structure
- straightforward assessment
- single tier examination paper
- on-going support from our team of subject specialists
- Key Stage 4 National Curriculum Programme of Study for ICT embedded
- tailor-made teaching and learning resources
- Functional Skills ICT embedded
- controlled assessment briefs for Unit 2 and Unit 4 are available to download from the Edexcel website.



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## Specification at a glance

The Edexcel GCSE in ICT comprises two units.

- Units 1 and 2.

The Edexcel GCSE in ICT (Double Award) comprises four units.

- Units 1, 2, 3 and 4.

Unit 1:	Living in a Digital World	*Unit code: 5IT01	
Externally assessed		40% of the total GCSE	20% of the total GCSE Double Award
Availability: June series			
<p>Overview of content</p> <p>In this unit students explore how digital technology impacts on the lives of individuals, organisations and society.</p> <p>They learn about current and emerging digital technologies and the issues raised by their use in a range of contexts (learning and earning, leisure, shopping and money management, health and wellbeing and on the move).</p> <p>They develop awareness of the risks that are inherent in using ICT and the features of safe, secure and responsible practice.</p>			
<p>Overview of assessment</p> <p>This unit is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.</p> <p>The total number of marks available for the examination paper is 80.</p> <p><b>Assessment Objectives covered</b></p> <p>This unit addresses all three Assessment Objectives (AOs)**.</p>			

\* See *Appendix 3* for the description of this code and all other codes relevant to this qualification.

\*\* See page 60 for details of the Assessment Objectives (AOs).

Unit 2: Using Digital Tools		*Unit code: 5IT02	
Internally assessed		60% of the total GCSE	30% of the total GCSE Double Award
Availability: June series			
<p>Overview of content</p> <p>This is a practical unit. Students broaden and enhance their ICT skills and capability. They work with a range of digital tools and techniques to produce effective ICT solutions in a range of contexts.</p> <p>They learn to reflect critically on their own and others' use of ICT and to adopt safe, secure and responsible practice.</p>			
<p>Overview of assessment</p> <p>The unit is internally assessed under controlled conditions.</p> <p>Students must complete a controlled assessment task provided by Edexcel.</p> <p>Students must complete the task within 40 hours.</p> <p>Marking of the task is carried out by teachers and moderated by Edexcel against set assessment criteria.</p> <p>The total number of marks available for the controlled assessment task is 80.</p> <p><b>Assessment Objectives covered</b></p> <p>This unit addresses all three Assessment Objectives.</p>			

\* See *Appendix 3* for the description of this code and all other codes relevant to this qualification.



Unit 3:	Exploring Digital Design	*Unit code: 5IT03
Externally assessed Availability: June series	<b>20% of the total GCSE Double Award</b>	
<p>Overview of content</p> <p>In this unit students explore the design of interactive digital products such as websites, computer games and databases. They learn how to interpret and produce design documentation.</p> <p>They investigate the properties of different types of digital content and features of the user interface. They develop knowledge and understanding of the legal, and other constraints on the production and use of digital content.</p>		
<p>Overview of assessment</p> <p>This unit is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.</p> <p>The total number of marks available for the examination paper is 80.</p> <p><b>Assessment Objectives covered</b></p> <p>This unit addresses all three Assessment Objectives.</p>		

\* See *Appendix 3* for description of this code and all other codes relevant to this qualification.

Unit 4:	Creating Digital Products	*Unit code: 5IT04
Internally assessed Availability: June series	<b>30% of the total GCSE Double Award</b>	
<p>Overview of content</p> <p>This is a practical unit. Students apply the knowledge and understanding of digital design they acquire in Unit 3 to produce an interactive digital product for others to use.</p> <p>They can choose what sort of product to design and make, but it must include an appropriate user interface and user input must determine the outputs that are produced.</p>		
<p>Overview of assessment</p> <p>This unit is internally assessed under controlled conditions.</p> <p>Students must complete a controlled assessment task, provided by Edexcel.</p> <p>Students must complete their task within 40 hours.</p> <p>Marking of the task will be carried out by teachers and moderated by Edexcel against the set assessment criteria.</p> <p>The total number of marks available for the controlled assessment task is 80.</p> <p><b>Assessment Objectives covered</b></p> <p>This unit addresses all three Assessment Objectives.</p>		

\* See *Appendix 3* for the description of this code and all other codes relevant to this qualification.

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# A Qualification content

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## National Qualifications Framework (NQF) criteria

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This specification complies with the requirements of the common criteria, the GCSE qualification criteria, the subject criteria for ICT and the Key Stage 4 Programme of Study for ICT, which are prescribed by the regulatory authorities.

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## Key subject aims

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The GCSE in ICT and GCSE in ICT (Double Award) qualifications enable students to:

- become independent and discerning users of ICT, able to make informed decisions about its use and aware of its implications for individuals, organisations and society
- acquire and apply creative and technical skills, knowledge and understanding of ICT in a range of contexts
- develop ICT-based solutions to solve problems
- develop their understanding of current and emerging technologies and their social and commercial impact
- develop their understanding of the legal, social, economic, ethical and environmental issues raised by ICT
- recognise potential risks when using ICT, and develop safe, secure and responsible practice
- develop the skills to work collaboratively
- evaluate ICT-based solutions.

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## Knowledge and understanding

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The GCSE in ICT and GCSE in ICT (Double Award) qualifications require students to demonstrate knowledge and understanding of:

- current and emerging technologies and their impact on individuals, organisations and society
- a range of ICT tools and techniques and the ways they are used in different contexts to develop ideas and solve problems
- legal, social, economic, ethical and environmental implications of the use of ICT for individuals, organisations and society
- issues of risk, safety, security, and responsible use of ICT
- collaborative working
- the use of ICT to support.

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## Skills

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The GCSE in ICT and GCSE in ICT (Double Award) qualifications provide students with the opportunity to develop the following skills:

- think creatively, logically and critically
- select, use and integrate ICT tools and techniques to meet needs
- find, select and evaluate information for its relevance, value, accuracy and plausibility
- manipulate and process data and other information, sequence instructions, model situations and explore ideas
- communicate data and information in a form fit for purpose and audience
- adopt safe, secure and responsible practice when using ICT
- develop appropriate and effective ICT-based solutions in a range of contexts
- evaluate their own and others' use of ICT.

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# Unit 1: Living in a Digital World

## Unit overview

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In this unit students explore how digital technology impacts on the lives of individuals, organisations and society.

They learn about current and emerging digital technologies and the issues raised by their use in a range of contexts (learning and earning, leisure, shopping and money management, health and wellbeing and on the move).

They develop awareness of the risks that are inherent in using ICT and the features of safe, secure and responsible practice.

The digital world is a rapidly changing one, with developments in both the technology and the way in which it is used. The content of this unit is specified using generic categories, avoiding the use of specific terms that will date.

Students should be encouraged to keep up-to-date with emerging technology as part of their learning experience. Technology updates will be provided on the Edexcel website.

## Assessment summary

- This unit represents 40% of the total assessment weighting of the GCSE in ICT qualification and 20% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.
- It is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.
- The first examination is in June 2014.
- Thereafter examinations are available once a year in June.

### **Assessment Objectives covered**

This unit addresses all three Assessment Objectives.

## Details of the examination

- The examination paper is a question and answer booklet consisting of five compulsory questions. Each question has several parts.
- A variety of question styles are used: multiple-choice, short answer and extended-writing.
- The total number of marks available for the examination paper is 80.

## Detailed unit content

### Topic 1. Personal digital devices

Students need to know about the developing range of personal digital devices that are available to individuals that impact on the way organisations work. Their availability and range of use also impacts on society.

Developments in the features, functionality and potential uses of digital devices are rapid. Students need to understand the principles of these devices and how to apply them in changing contexts.

<b>Students should know about these digital devices.</b>	<b>The following topics relate to all digital devices. Students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Mobile phones</li> <li>• Personal computers (portable, desktop)</li> <li>• Cameras and camcorders</li> <li>• Games consoles</li> <li>• Home entertainment systems</li> <li>• Media players</li> <li>• Navigation aids</li> </ul>	<ol style="list-style-type: none"> <li>1.1. the purpose of and target audience for digital devices; ways in which digital devices are used by individuals in their daily lives (learning and earning, leisure, shopping and money management, health and wellbeing and on the move)</li> <li>1.2. features of digital devices (portability, performance, storage, user interface, connectivity, media support, energy consumption, expansion capability, security features, applications); multi-functional devices, eg mobile phones that include a camera, have limited game playing functionality and sometimes GPS</li> <li>1.3. how to select suitable devices/features to meet particular needs</li> <li>1.4. the impact of age, gender and disability on individuals' choice/use of digital devices</li> <li>1.5. methods of connecting devices (device to device, device to internet, device to peripherals)</li> <li>1.6. peripheral devices that can be used with digital devices</li> <li>1.7. the impact of the use of digital devices on the way organisations operate</li> <li>1.8. health and safety risks associated with digital devices and how to reduce or contain them; responsible use of digital devices.</li> </ol>



## Topic 2. Connectivity

Students need to know and understand the ways in which personal digital devices exchange data and communicate with each other and with the larger systems supporting online organisations. They should also be aware of the increasing importance of 'access everywhere' developments.

Students' understanding is not expected to be based on the details of the technology but should focus on the selection of the most appropriate digital communications for a particular context and the impact of this on the quality of connection.

<b>Students should know about these types of connection and the digital data involved.</b>	<b>The following topics relate to the types of digital communications and the impact of the method of communication on the speed and other features of a network.</b>  <b>Students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Digital communications               <ul style="list-style-type: none"> <li>– device to device (cable, wireless)</li> <li>– broadcast (TV, radio, GPS)</li> </ul> </li> <li>• Digital data               <ul style="list-style-type: none"> <li>– information</li> <li>– communication (email, voice, video)</li> <li>– applications (gaming, peripheral connections)</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>2.1. factors influencing the choice of digital communication in a network</li> <li>2.2. equipment needed to create a home network; benefits and drawbacks of wired versus wireless connections</li> <li>2.3. how different technologies can be used together, eg transferring a picture from a phone via Bluetooth, then uploading to web via WiFi and ADSL</li> <li>2.4. factors affecting speed and volume of data transfer</li> <li>2.5. the significance of bandwidth and latency, and their impact on the 'user experience'</li> <li>2.6. commonly used communication networks (Ethernet, wireless Ethernet, GSM)</li> <li>2.7. commonly used communication protocols (VoIP, POP, IMAP, SMTP, HTTP/S)</li> <li>2.8. security risks to data and how to reduce or contain them (firewalls, encryption, authentication, digital certificates, physical access controls).</li> </ol>

### Topic 3. Operating online

Topic 1 Personal Digital Devices explores the features and functions of digital devices and Topic 2 Connectivity investigates the use of networks. This topic moves away from the technology and focuses on how individuals operate safely online and protect themselves from risk.

**Students should understand the implications of operating online in the context of:**

- Worldwide web
- Identification and authentication
- Online accounts
- Personal spaces
- Profiling (public and private)
- Data protection

**These topics relate to the ways in which individuals can safely use online systems and the responsibility of organisations to ensure that this is the case.**

**Students need to learn about:**

- 3.1. the widespread use of the internet
- 3.2 the use of usernames, passwords and other security measures (challenge responses, security questions) when accessing online systems
- 3.3 control of access to and management of personal spaces; opportunities for individuals to personalise own spaces; responsible use
- 3.4 threats to and methods of preventing misuse of personal information
- 3.5 the impact of relevant legislation.

<b>Topic 4. Online goods and services</b>	
Many services are now provided online. This topic explores a range of online services and investigates their impact on individuals, organisations and society.	
<p><b>Students should know about these online services:</b></p>	<p><b>These topics relate the use of online services by individuals and the impact of this on organisations and society.</b></p> <p><b>Students need to learn about:</b></p>
<ul style="list-style-type: none"> <li>• Online 'shops'/physical goods</li> <li>• Booking systems for travel, leisure and entertainment</li> <li>• Banking and other financial services</li> <li>• Education and training</li> <li>• Gaming</li> <li>• News and other information services</li> <li>• Auctions</li> <li>• 'On demand'/streaming entertainment services</li> </ul>	<ul style="list-style-type: none"> <li>4.1. advantages and disadvantages of shopping online rather than in the high street</li> <li>4.2. the impact on lifestyles and behaviour of the availability of goods and services online</li> <li>4.3. how and why organisations operate online; impact of the internet on the ways that organisations do business</li> <li>4.4. the value of transactional data (what is collected, how it is collected, eg cookies, transaction tracking, and what it is used for)</li> <li>4.5. targeted marketing and personalisation techniques</li> <li>4.6. payment systems</li> <li>4.7. consumer protection.</li> </ul>
<p><b>Students should be aware of online provision of software, storage and the availability of search engines.</b></p> <p><b>Students should know about:</b></p>	<p><b>The availability of software that can be used online or downloaded for personal use may impact on developments in the future.</b></p> <p><b>Students need to learn about:</b></p>
<ul style="list-style-type: none"> <li>• Software as a service</li> <li>• Software download</li> <li>• Data storage</li> <li>• Search engines</li> </ul>	<ul style="list-style-type: none"> <li>4.8. the advantages and disadvantages of hosted applications software versus locally installed software</li> <li>4.9. how commercial software producers can respond to the challenge of software as a service</li> <li>4.10. the advantages and disadvantages of online data storage versus local storage</li> <li>4.11. the advantages and disadvantages of free/open source versus proprietary software</li> <li>4.12. effective use of search engines, validity of results, searching techniques.</li> </ul>

### Topic 5. Online communities

The development of online communities has implications for an individual's learning, leisure and social interactions. Collaborations are facilitated through the availability of online work spaces. The growth of social networking has potential risks as well as benefits.

<b>Students should know about:</b>	<b>For the specified types of online communities students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Social networking</li> <li>• Online work spaces</li> <li>• Virtual learning environments</li> <li>• User-generated reference sites and social book marking</li> </ul>	<ol style="list-style-type: none"> <li>5.1. the features, functions and target audience of different forms of online communities</li> <li>5.2. ways in which ICT is changing the way knowledge is created</li> <li>5.3. the impact of the internet on employment and working practices; collaborative working</li> <li>5.4. the impact of the internet on ways of socialising</li> <li>5.5. responsible use and acceptable behaviour</li> <li>5.6. ways in which ICT is used to communicate and collaborate on a global scale.</li> </ol>

**Topic 6. Issues**

There are a number of issues raised by the use of ICT. Students should understand how these are addressed in the design and use of digital systems. They should be able to make sensible choices and develop safe, secure and responsible practice. They should be aware of and be able to assess the impact of emerging technologies.

Students should also be aware of the impact on individuals and communities of limited or no access to digital technologies.

<b>Students should know about:</b>	<b>Students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Security</li> <li>• Privacy</li> <li>• Health and safety</li> <li>• Legal and ethical</li> <li>• Environmental</li> </ul>	<ol style="list-style-type: none"> <li>6.1. security issues that arise when information is transmitted and stored digitally</li> <li>6.2. privacy issues associated with the use of ICT</li> <li>6.3. ways in which ICT can be used to monitor individuals' movements and communications</li> <li>6.4. health and safety issues that arise from individuals' use of ICT</li> <li>6.5. the impact on society of the widespread use of networks and the ability of individuals to access networks anywhere</li> <li>6.6. legislation relating to the use of ICT, including copyright and data protection</li> <li>6.7. the causes and implications of unequal access to ICT (locally, globally)</li> <li>6.8. safe and responsible practice when using ICT</li> <li>6.9. sustainability issues and ways of minimising/mitigating the environmental impact of ICT.</li> </ol>



## Unit 2: Using Digital Tools

### Unit overview

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This is a practical unit. Students broaden and enhance their ICT skills and capability. They work with a range of digital tools and techniques to produce effective ICT solutions in a range of contexts.

They learn to reflect critically on their own and others' use of ICT and to adopt safe, secure and responsible practice.

### Assessment summary

- This unit represents 60% of the total assessment weighting of the GCSE in ICT qualification and 30% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.
- It is internally assessed under controlled conditions.
- Students must complete a controlled assessment task.
- The brief for the task is provided by Edexcel, and is available on the Edexcel website prior to the start of the academic year (see Information Manual for key dates). The task is broken down into a number of activities. The task allows some flexibility of approach within the activities.
- Centres can contextualise the task to best suit their centre-specific circumstances. Details of those aspects of a task that centres can modify are identified in the support notes for the task brief.
- All work, with the exception of research and preparation, must be done under informal supervision. Research and preparation may be completed under limited supervision.
- Centres should allocate 40 hours of informal supervised time for students to work on the controlled assessment.
- Marking of the task is carried out by teachers and moderated by Edexcel against set assessment criteria.
- The total number of marks available for the controlled assessment task is 80.
- The first submission of students' work for moderation is in June 2014.
- Thereafter moderation is available once a year in June.

#### **Assessment Objectives covered**

This unit addresses all three Assessment Objectives.

### Details of the Controlled Assessment Brief (CAB)

Students complete one CAB (the task). Each CAB consists of four activities which will vary in context and outcomes.

The CAB is an interactive onscreen publication. It is available to download from the Edexcel website.

Each CAB is valid for two academic years. A new CAB is made available each year.

### Controlled assessment

#### Task setting: High control

**A high level of control** means that Edexcel sets the task (CAB) for students to complete.

##### **When will the tasks be available?**

The brief for the task is provided by Edexcel, and is available on the Edexcel website before the start of the academic year (see Information Manual for key dates).

##### **When should the tasks be made available to students?**

Centres are advised to teach the relevant content of the unit before allowing students to start the controlled assessment.

#### Task taking: Medium control

**Independent working:** students are expected to work on the CAB independently of their teacher, although this does not preclude them receiving formative feedback. Support or guidance that is more substantial than this must be noted on the Candidate Assessment Record (CAR) and the mark awarded must reflect the level of support given.

Students may require different levels of guidance at different points in the activities. Often guidance at an early stage in a task/activity will build self-confidence and motivation and will enable a student to access later stages independently.

**Collaborative working:** students must provide an individual response to the CAB. However, all students must have a **test buddy** who will provide feedback on the resources being developed. This can be done using collaborative tools such as, blogs, wikis and shared workspaces.



### The controlled assessment

A **medium level of control** means that students are able to work on the CAB only in a lesson, supervised by a teacher or invigilator.

At the end of each lesson, students' materials, paper based and electronic, must be collected in, stored securely and handed back at the beginning of the next lesson.

The teacher must ensure that **all** materials are securely stored at the end of each lesson.

Students must work individually, without intervention or assistance from others.

The work that students produce for the CAB must be kept under secure conditions at all times. This could be on a secure network drive, in a restricted access area of the school's VLE or intranet or on a portable storage device kept by the teacher.

Students may carry out research and gather assets such as photographs, video footage or audio files without supervision, outside the controlled environment. This 'raw material' must be brought into the classroom on a portable storage device, such as a memory stick, provided by the centre for this purpose.

Any digital material brought into the classroom in this way must be checked by the teacher before being transferred to the centre's secure storage area. The content of the portable storage device must be deleted once the files have been transferred.

Any manipulation or development of this material thereafter must be done under teacher supervision in the controlled environment.

### Resources

The same range of resources must be made available to all students within a centre. These could include:

- the internet
- onscreen and paper-based materials.

### IT equipment

Centres must ensure that the IT equipment used by students does not allow them to access any pre-prepared materials.

### Time

Centres must allow up to **40 hours** for students to complete their task.

### Authentication

All students must sign an authentication statement. Statements relating to work not sampled should be held securely by the centre. Those which relate to sampled students must be included with the work sent to the moderator.

In accordance with the Code of Practice, any candidate unable to provide an authentication statement will receive zero credit for the component. Where credit has been awarded by a centre-assessor to sampled work without an accompanying authentication statement, the moderator will inform Edexcel and the mark will be adjusted to zero.

### Task marking: Medium control

A **medium level of control** means that teachers mark the controlled assessment task using the assessment criteria provided in this unit. The assessment for each student is recorded on an individual Candidate Assessment Record (CAR).

Teachers must provide a rationale for the marks that are awarded to candidates and indicate any guidance that has been given on the CAR.

Further advice of the marking process for each CAB is provided in support notes for teachers.

The activities can be assessed by the centre as they are completed, rather than waiting until the whole task has been completed.

Centres are expected to internally moderate marks where there is more than one teacher involved in task marking.

### Quality of written communication (QWC)

Students will be assessed on their ability to:

- (i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
- (ii) select and use a form and style of writing appropriate to purpose and to complex subject matter
- (iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

## Detailed unit content

### Topic 1. Research and information gathering

#### Students need to learn how to:

#### 1.1 Differentiate between data and information

- understand the characteristics of data and information
- understand how data and information can be organised and structured to facilitate effective use
- understand that information can be represented in different forms
- identify the data and information requirements of a task
- understand the need for accuracy

#### 1.2 Use secondary sources

- select appropriate sources of information, eg online databases, websites, email
- use appropriate search techniques to locate information
- select relevant information by making informal judgements about its quality, relevance and fitness for purpose
- recognise copyright and other constraints on the use of information

#### 1.3 Use primary sources

- create original images and other assets
- create original text and other information
- create survey data

#### 1.4 Use databases

- understand how data can be structured eg single table, linked table
- enter and edit records
- search for valid and meaningful information for a specified purpose
- sort records using single and multiple fields in ascending and descending order
- use reports to present information clearly.

### Topic 2. Modelling

#### Students need to learn how to:

##### 2.1 Adapt and enhance spreadsheet models

- gather and validate data for use in a model
- enter and organise numerical data
- manipulate, process and analyse numerical data
- format numerical data and other information
- use formulae, functions and variables
- use validation techniques
- enhance clarity and presentation

##### 2.2 Use models to explore ideas

- ask 'what if' questions
- model different scenarios
- try out alternatives and explore ideas
- create and develop charts and graphs to display numerical data
- verify results (accuracy, plausibility)
- interpret results and make recommendations based upon them.

**Topic 3. Digital publishing****Students need to learn how to:****3.1 Design digital products which are fit for purpose and audience**

- investigate requirements
- analyse stages of a complex ICT task
- use design tools (storyboarding, structure charts, flowcharts, templates)
- justify design decisions
- make use of feedback from test users

**3.2 Prepare and organise different types of digital content**

- text
- number
- sound
- images
- video
- animation

**3.3 Develop digital products which are fit for purpose and audience**

- combine different types of digital content
- use accepted layouts and conventions
- apply editing, formatting and layout techniques
- maximise clarity and enhance presentation
- create a user interface
- use automated features
- sequence instructions
- test for functionality and usability.

### Topic 4. Evaluating outcomes

#### Students need to learn how to:

##### 4.1 Review outcomes

- compare with requirements
- identify strengths and weaknesses
- suggest possible improvements
- make modifications to improve the outcomes

##### 4.2 Work collaboratively

- choose suitable test users
- respond appropriately to feedback from others
- give constructive feedback to others
- use collaborative tools

##### 4.3 Self-review

- review own performance
- identify strengths and weaknesses
- evaluate the selection, use and effectiveness of ICT tools and facilities used.

## Topic 5. Working efficiently and safely

### Students need to learn how to:

#### 5.1 Manage files

- save work regularly and keep information secure
- use sensible filenames and formats
- create and manage files and folder structures
- retrieve work efficiently

#### 5.2 Manage themselves and their work

- plan and manage work efficiently
- select appropriate ICT tools and techniques
- customise settings
- use available sources of help
- use software templates and wizards
- adopt safe, secure and responsive practice when using ICT
- communicate and exchange information safely, responsibly and securely
- organise electronic messages, attachments and contacts

#### 5.3 Quality assure what they produce

- work accurately
- spell check
- proofread
- seek views of others

#### 5.4 Know about and adhere to legislation and codes of practice

- acknowledge sources
- respect copyright
- protect confidentiality.

### Assessment criteria

These assessment criteria will be used with a number of different CABs and are therefore expressed in general terms. The CABs will require responses of a similar standard but the activities will vary. (See the detailed section on the controlled assessment brief earlier in this document.) Specific advice relating to each CAB will be provided to assist the marking process. This advice will be based on the specific interpretation of the criteria given below.

#### Activity 1

##### 1a. Gathering information AO2 (10)

Gathering information involves the use of student identified sources and a given database. The information gathered must be relevant to the CAB and must include use of the internet and email.

Better students will use efficient search techniques, using a range of self-identified sources, and will also make good use of the database. The information will be relevant to the digital products they produce.

0	No rewardable content.
1-4 marks	The student has used some appropriate sources, including a given database, to gather information, some of which is relevant for use in their digital products.
5-7 marks	The student has used a range of appropriate sources, including a given database, to select relevant information for use in their digital products.
8-10 marks	The student has used a wide range of appropriate sources, including a given database, showing discrimination in their selection of information for use in their digital products. They have used complex or efficient techniques to refine searches.



**1b. Developing digital products AO1 (2), AO2 (8), AO3 (2)**

The digital products are identified in the CAB. The effectiveness of testing is evidenced by the quality of the products that have been produced.

Better students will have produced digital products that are of high quality, with effective content and features.

0	No rewardable content.
1-4 marks	The student has developed the specified digital products, with some use of appropriate content. They have carried out a limited review of their work but with few modifications.
5-8 marks	The student has developed the specified digital products, using appropriate content and features. They have reviewed their work and made modifications some of which are effective.
9-12 marks	The student has developed the specified digital products, using appropriate content and features effectively. They have reviewed and modified their work throughout its development, using feedback from others to improve the outcomes.

### Activity 2

#### 2a. Modelling AO2 (10), AO3 (2)

Students use a spreadsheet model to generate information. Their choice of model and how they use it impacts on the usefulness of the information that is generated.

Better students will have developed the spreadsheet they selected, normally the more complex version, and will generate information that can be used to inform decision-making.

The effectiveness of testing is evidenced by the spreadsheet model that has been produced.

0	No rewardable content.
1-4 marks	The student has gathered some relevant data and developed a simple spreadsheet model that generates some meaningful information. They have carried out limited testing, but with little effect.
5-8 marks	The student has selected relevant data and developed a spreadsheet model that generates meaningful information. Testing has been carried out, but not all of it was effective.
9-12 marks	The student has selected relevant data, developed a complex spreadsheet model that generates sufficient reliable and meaningful information to fully inform the decision-making process. Effective testing has been carried out.

**2b. Digital publishing AO1 (2), AO2 (8), AO3 (2)**

The digital products are identified in the CAB. The effectiveness of testing is evidenced by the quality of the products that have been produced.

Better students will have produced digital products that are of high quality, with effective content and features. They will have used the spreadsheet model to produce recommendations that are used in a digital product.

0	No rewardable content.
1-4 marks	The student has developed the specified outcomes, with some use of appropriate content. They have used results from their model to make recommendations, some of which are sensible. They have carried out a limited review of their work but with few modifications.
5-8 marks	The student has developed the specified outcomes, using appropriate content and features. They have used their model to consider alternatives and present sensible recommendations. They have reviewed their work and made modifications some of which are effective.
9-12 marks	The student has developed the specified outcomes, using effective content and features. They have used their model to consider feasible alternatives and present well-reasoned recommendations. They have reviewed and modified their work throughout its development, using feedback from others to improve the outcomes.

### Activity 3

#### 3a. Design AO2 (10)

Students use design tools to show what the digital product will be like. The design process will give details of what the product will be like, including the flow of information.

Better designs will specify the screens fully and will use a flowchart to show pathways through the product.

0	No rewardable content.
1-4 marks	The student has used design tools to give some indication of what each screen will be like. They have commented on some of their design decisions.
5-7 marks	The student has used design tools to show what each screen will be like, and how they are linked together. They have commented on important design decisions.
8-10 marks	The student has used design tools to clearly show what each screen will be like and pathways through the product. They have commented on and justified important design decisions.

**3b. Digital publishing AO1 (2), AO2 (8), AO3 (2)**

The CAB will specify the outcomes required. The student will develop the digital products that they have designed. The effectiveness of testing is evidenced by the quality of the outcomes that have been produced.

Better students will have developed outcomes, with a range of features. The user interface will be effective.

0	No rewardable content.
1-4 marks	The student has developed the specified outcomes, with some use of appropriate content. The interactive product has limited user control. The student has carried out a limited review of their work, but with few modifications.
5-8 marks	The student has developed the specified outcomes, using appropriate content and features. The interactive product has a functional user interface and control. The student has reviewed their work and made modifications some of which are effective.
9-12 marks	The student has developed the specified outcomes, using appropriate content and features effectively. The interactive product has an effective user interface and control. The student has reviewed and modified their work throughout its development, using feedback from others to improve the outcomes.

### Activity 4

#### 4. Evaluation AO3 (12) QWC (i-iii)

The CAB will specify what evaluation the student must carry out. This will include evaluating their own and others' digital products and use of ICT. Use of collaborative tools, such as email, would be beneficial.

0	No rewardable content.
1-4 marks	<p>The student has made undeveloped comments about the outcomes of individual activities or the task as a whole.</p> <p>The student has used everyday language but their response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.</p>
5-8 marks	<p>The student has made comments, some of which are developed about the outcomes of individual activities and the task as a whole. Some suggested improvements are made.</p> <p>The student has used some specialist terms and their response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.</p>
9-12 marks	<p>The student has made effective evaluative comments about the outcomes of activities and the task as a whole, including feedback given and received, and their own performance. Effective improvements are suggested.</p> <p>The student has used appropriate specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.</p>

## Unit 3: Exploring Digital Design

### Unit overview

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In this unit students explore the design of interactive digital products such as websites, computer games and databases. They learn how to interpret and produce design documentation.

They investigate the properties of different types of digital content and features of the user interface. They develop knowledge and understanding of legal and other constraints on the production and use of digital content.

### Assessment summary

- This unit represents 20% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.
- It is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.
- The first examination is in June 2014.
- Thereafter examinations are available once a year in June.

#### **Assessment Objectives covered**

This unit addresses all three Assessment Objectives.

### Details of examination

- The examination paper is a question and answer booklet consisting of five compulsory questions. Each question has several parts.
- A variety of question styles are used: problem-solving tasks, short answer and extended writing.
- The total number of marks available for the examination paper is 80.

### Detailed unit content

<b>Topic 1. Digital products</b>	
There are many types of digital products. Students need to know about their key characteristics and be able to evaluate their design and suggest improvements.	
<b>Students should know about these digital products.</b>	<b>The following topics relate to the design of digital products.</b> <b>Students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Web products               <ul style="list-style-type: none"> <li>– websites</li> <li>– information points</li> </ul> </li> <li>• Games</li> <li>• Databases</li> <li>• Multimedia               <ul style="list-style-type: none"> <li>– e-learning/training</li> <li>– simulations</li> <li>– presentations</li> <li>– e-books/e-zines</li> <li>– posters/adverts</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>1.1. the purpose of digital products (advertise, persuade, entertain, influence, educate, inform)</li> <li>1.2. how the needs, preferences and characteristics of the target audience and platform of a digital product influence its design</li> <li>1.3. design features of digital products (structure, layout, navigation, content, logic, user interface); how to evaluate a digital product and suggest improvements</li> <li>1.4. ways in which functionality, usability and accessibility requirements are addressed</li> <li>1.5. how product design impacts on the user experience.</li> </ol>



## Topic 2. Design elements

Students need to know about the features and characteristics of design elements and how to gather and prepare content for use in digital products.

They need to be aware of legal and other constraints that affect the use of digital materials.

<p><b>Students should know about these types of elements that are combined to create digital products.</b></p>	<p><b>The following topics relate to the design and use of digital elements. The topics include the design of the elements, communication involving digital elements, re-purposing elements.</b></p> <p><b>Students need to learn about:</b></p>
<ul style="list-style-type: none"> <li>• Images</li> <li>• Audio</li> <li>• Video</li> <li>• Text</li> <li>• Animation</li> </ul>	<ol style="list-style-type: none"> <li>2.1. properties of elements</li> <li>2.2. methods of gathering, preparing and re-purposing digital content; codes of conduct for using and producing digital elements.</li> <li>2.3. how combinations of elements can be used to create a multi-sensory user experience</li> <li>2.4. reasons for re-purposing digital content</li> <li>2.5. intellectual property, copyright and other restrictions on the use of content created by other people; licences and permissions</li> <li>2.6. sources of copyright-free material, eg Creative Commons® licences</li> <li>2.7. file formats/types and applications</li> <li>2.8. types and characteristics of images (logos, photographs, buttons, banners, drawings, bullets, clipart)</li> <li>2.9. types of audio (sound effects, sound tracks, voice-overs)</li> <li>2.10. methods of accessing video on the internet (downloading, streaming)</li> <li>2.11. video codecs</li> <li>2.12. methods of compressing audio and video files; benefits and drawbacks of compression.</li> </ol>

Topic 3. Design principles	
Students need to know about design principles.	
Students should know about these basic design principles and techniques.	Students need to learn about:
<ul style="list-style-type: none"> <li>• Composition</li> <li>• Consistency</li> <li>• Usability and accessibility</li> <li>• Legal/ethical behaviour</li> </ul>	<ol style="list-style-type: none"> <li>3.1. the use of colour, shape and line, balance and contrast in digital composition</li> <li>3.2. the visual hierarchy and rule of thirds</li> <li>3.3. use of common elements to provide consistency</li> <li>3.4. house styles and templates</li> <li>3.5. font styles and sizes</li> <li>3.6. methods of achieving user control/interactivity</li> <li>3.7. timings and transitions</li> <li>3.8. design features of data entry forms (fields, buttons, menus, banners) and their purpose; advantages and disadvantages; impact on user experience</li> <li>3.9. accessibility features (Alt text, resizable fonts, support for screen readers, adjustable fonts, 'listen to this page'); accessibility standards and legal requirements</li> </ol>

#### Topic 4. The user-centred design process

Students need to understand the concept of user-centred design and how to involve users in the design process. They need to know about planning and managing the design process.

<b>Students should know about these tasks in the design process.</b>	<b>Digital products need to be fit for purpose and audience.</b> <b>Students need to learn about:</b>
<ul style="list-style-type: none"> <li>• Establishing user requirements</li> <li>• Design and development</li> <li>• File management</li> <li>• Resourcing</li> <li>• Time management</li> </ul>	<ol style="list-style-type: none"> <li>4.1. methods of specifying user requirements unambiguously</li> <li>4.2. working to a brief, including timescales and resource requirements</li> <li>4.3. file/folder naming conventions, versioning, benchmarking</li> <li>4.4. methods of gathering information (questionnaires, forums, interviews, observation of users, document sampling, background research, profiling)</li> <li>4.5. how attributes of the target audience impact on design (needs, likes and dislikes, capability)</li> <li>4.6. the iterative approach to design and development</li> <li>4.7. methods of eliciting and responding to user feedback.</li> </ol>

### Topic 5. Quality assurance

Students need to understand the importance of quality assurance and know about methods of testing.

**Students should know about the role of testing in the design/development process.**

- Formative testing
- Summative testing
- Test users

**Testing functionality and fitness for purpose are key aspects of the quality assurance process.**

**Students need to learn about:**

- 5.1. different types of testing; what and how to test (functionality, performance, usability, accessibility, security, stability)
- 5.2. testing the product with different platforms, locations and audiences
- 5.3. methods of testing; selection criteria for test users; how to produce a test plan; methods of collecting feedback (checklist, interview, questionnaire)
- 5.4. making use of the outcomes of testing
- 5.5 the importance of re-testing when a change is made.

<b>Topic 6. Design documentation</b>	
Students need to know about the purpose and content of design documentation and be able to interpret and produce design documents.	
<b>Students should know about these different types of design documentation.</b>	<p><b>Design documentation is important in supporting the development and maintenance of products. The availability of documentation enables people other than the original developer to understand what was intended and make changes to a digital product.</b></p> <p><b>Students need to learn about:</b></p>
<ul style="list-style-type: none"> <li>• Moodboards</li> <li>• Storyboards</li> <li>• Flowcharts</li> <li>• Timeline storyboards</li> <li>• Scripts</li> <li>• Mock-ups</li> <li>• Pre-viz</li> <li>• Structure diagrams</li> <li>• Site maps</li> <li>• Entity relationship diagrams</li> </ul>	<ol style="list-style-type: none"> <li>6.1. the audience and purpose of design documents and when each is produced</li> <li>6.2. content of design documents</li> <li>6.3. how to interpret design documentation produced by others</li> <li>6.4. how to produce design documentation.</li> </ol>



## Unit 4: Creating Digital Products

### Unit overview

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This is a practical unit. Students apply the knowledge and understanding of digital design they acquire in Unit 3 to produce an interactive digital product for others to use.

They can choose what sort of product to design and make, but it must include an appropriate user interface and user input must determine the outputs that are produced.

### Assessment summary

- This unit represents 30% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.
- It is internally assessed under controlled conditions.
- Students must complete a controlled assessment task.
- The brief for the task is provided by Edexcel, and is available on the Edexcel website before the start of the academic year (see Information Manual for key dates). The task is broken down into a number of activities. The task allows some flexibility of approach within the activities.
- Centres can contextualise the task to best suit their centre-specific circumstances. Details of those aspects of a task that centres can modify are identified in the support notes for the task brief.
- All work, with the exception of research and preparation, must be done under informal supervision. Research and preparation may be completed under limited supervision.
- Centres should allocate 40 hours of informal supervised time for students to work on the controlled assessment.
- Marking of the task is carried out by teachers and moderated by Edexcel against set assessment criteria.
- The total number of marks available for the controlled assessment task is 80.
- The first submission of students' work for moderation is in June 2014.
- Thereafter moderation will take place once a year in June.

#### **Assessment Objectives covered**

This unit addresses all three Assessment Objectives.

### Details of the Controlled Assessment Brief (CAB)

Students complete one CAB (the task). Each CAB consists of four activities.

The CAB is an interactive onscreen publication. It is available to download from the Edexcel website.

Each CAB is valid for two academic years. A new CAB is made available each year.

### Controlled assessment

#### Task setting: High control

**A high level of control** means that Edexcel sets the task (CAB) for students to complete.

##### **When will the tasks be available?**

The brief for the task is provided by Edexcel, and is available on the Edexcel website prior to the start of the academic year (see Information Manual for key dates).

##### **When should the tasks be made available to students?**

Centres are advised to teach the relevant content of the unit before allowing students to start the controlled assessment.

#### Task taking: Medium control

**Independent working:** students are expected to work on the CAB independently of their teacher, although this does not preclude them receiving formative feedback. Support or guidance that is more substantial than this must be noted on the Candidate Assessment Record (CAR) and the mark awarded must reflect the level of support given.

Students may require different levels of guidance at different points in the activities. Often, guidance at an early stage in a task/activity will build self-confidence and motivation and will enable a student to access later stages independently.

**Collaborative working:** students must provide an individual response to the CAB. However, all students will have a **test buddy** who will provide feedback on the resources being developed. This can be done using collaborative tools such as, blogs, wikis and shared workspaces.



### The controlled assessment

A **medium level of control** means that students are only able to work on the CAB in a lesson, supervised by a teacher or invigilator.

At the end of each lesson, students' materials, paper based and electronic, must be collected in, stored securely and handed back at the beginning of the next lesson.

The teacher must ensure that **all** materials are securely stored at the end of each lesson.

Students must work individually, without intervention or assistance from others.

The work that students produce for the CAB must be kept under secure conditions at all times. This could be on a secure network drive, in a restricted access area of the school's VLE or intranet or on a portable storage device kept by the teacher.

Students may carry out research and gather assets such as photographs, video footage or audio files without supervision, outside the controlled environment. This 'raw material' must be brought into the classroom on a portable storage device, such as a memory stick, provided by the centre for this purpose.

Any digital material brought into the classroom in this way must be checked by the teacher before being transferred to the centre's secure storage area. The content of the portable storage device must be deleted once the files have been transferred.

Any manipulation or development of this material thereafter must be done under teacher supervision in the controlled environment.

### Resources

The same range of resources must be made available to all students within a centre. These could include:

- the internet
- onscreen and paper-based materials.

### IT equipment

Centres must ensure that the IT equipment used by students does not allow them to access any pre-prepared materials.

### Time

Centres must allow up to **40 hours** for students to complete their task.

### Authentication

All students must sign an authentication statement. Statements relating to work not sampled should be held securely by the centre. Those which relate to sampled students must be included with the work sent to the moderator.

In accordance with the Code of Practice, any candidate unable to provide an authentication statement will receive zero credit for the component. Where credit has been awarded by a centre-assessor to sampled work without an accompanying authentication statement, the moderator will inform Edexcel and the mark will be adjusted to zero.

### Task marking: Medium control

A **medium level of control** means that teachers mark the controlled assessment task using the assessment criteria provided in this unit. The assessment for each student is recorded on an individual Candidate Assessment Record (CAR).

Teachers must provide a rationale for the marks that are awarded to candidates and indicate any guidance that has been given on the CAR.

Further advice of the marking process for each CAB is provided in support notes.

The activities can be assessed by the centre as they are completed, rather than waiting until the whole task has been completed.

Centres are expected to internally moderate marks where there is more than one teacher involved in task marking.

Edexcel will externally moderate the marking process.

### Quality of written communication (QWC)

Students will be assessed on their ability to:

- (i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear
- (ii) select and use a form and style of writing appropriate to purpose and to complex subject matter
- (iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

## Detailed unit content

### Topic 1. Investigate and review digital products

#### Students need to learn how to:

#### 1.1 Investigate digital products

- key features of a range of different digital products
- audience and purpose

#### 1.2 Review a digital product

- strengths and weaknesses
- functionality
- usability
- ratings
- recommendations.

### Topic 2. Proposal

#### Students need to learn how to:

#### 2.1 Produce a proposal that includes:

- characteristics of target audience
- purpose of product
- overview and key features of the product, including input, processing and output, interactivity and accessibility
- plans for testing and feedback
- resources required
- success criteria.

### Topic 3. Design

#### Students need to learn how to:

##### 3.1 Produce design documentation as appropriate for type of product:

- moodboards
- table structures, relationship diagrams, forms, pre-defined searches and reports
- storyboards
- structure diagrams, flow charts
- timeline storyboards
- explanations of design decisions
- algorithms, rules, navigation, validation.

### Topic 4. Development

#### Students need to learn how to:

##### 4.1 Implement a design, including:

- gathering and preparing content, including assets and assets tables as appropriate
- feedback
- functionality testing
- usability testing
- accessibility features
- user interface

##### 4.2 Produce clear user instructions

- onscreen instructions
- user guides
- aids to usability.

**Topic 5. Testing and refinement****Students need to learn how to:****5.1 Carry out thorough and effective testing, including:**

- creating and using a test plan
- functionality testing
- usability and accessibility testing
- taking account of test results and user feedback.

**Topic 6. Showcase****Students need to learn how to:****6.1 Showcase a product**

- focus on key features
- repurpose content from product
- attract attention
- promote the product.

**Topic 7. Evaluating outcomes****Students need to learn how to:****7.1 Review outcomes**

- compare with requirements
- identify strengths and weaknesses
- suggest possible improvements

**7.2 Work collaboratively**

- choose suitable test users
- respond appropriately to feedback from others
- give constructive feedback to others.

### Topic 8. Working efficiently and safely

#### Students need to learn how to:

##### 8.1 Manage files

- save work regularly and keep information secure
- use sensible filenames and formats
- create and manage files and folder structures
- retrieve work efficiently

##### 8.2 Manage themselves and their work

- plan and manage work efficiently
- select appropriate ICT tools and techniques
- customise settings
- use available sources of help
- use software templates and wizards
- adopt safe, secure and responsible practice when using ICT
- communicate and exchange information safely, responsibly and securely
- organise electronic messages, attachments and contents

##### 8.3 Quality assure what they produce

- work accurately
- spell check
- proofread
- seek views of others

##### 8.4 Adhere to legislation and codes of practice

- acknowledge sources
- respect copyright
- protect confidentiality.

## Assessment criteria

These assessment criteria will be used with a number of different product types and are therefore expressed in general terms. Specific advice relating to each product type will be provided to assist the centres. This advice will be based on the specific interpretation of the criteria given below.

### Activity 1

#### 1a. Investigation AO2 (4), AO3 (6)

In the investigation the student will review a product of the same type that they intend to produce. This will involve comments about the product, identification of strengths and weaknesses with examples to support the review.

Better product reviews will be evaluative and will include functionality, usability and accessibility.

0	No rewardable content.
1-4 marks	The student has made some relevant comments about the strengths and weaknesses of the product, using extracts from the product to support the comments.
5-7 marks	The student has made relevant comments with some evaluation of the product's strengths and weaknesses, including functionality and the user interface, using extracts from the product to support the comments.
8-10 marks	The student has produced a realistic evaluation of the strengths and weaknesses of the product, including functionality, usability and accessibility, illustrated by well-chosen extracts from the product.

### 1b. Proposal AO2 (8), AO3 (2)

The proposal will detail characteristics of the target audience and purpose of the product, plus proposed content and features. It will be sufficiently detailed to allow the teacher to make an informed decision to allow the student to proceed.

Better proposals will include explanations of choices and consideration of testing.

0	No rewardable content.
1-4 marks	The student has produced an outline proposal for an appropriate product, some of which is relevant.
5-7 marks	The student has produced an informed proposal for an appropriate product.
8-10 marks	The student has produced a comprehensive and convincing proposal for an appropriate product.



## Activity 2

**2a. Design AO2 (10)**

The design process will vary according to the type of product being developed. In all cases the product must include interaction with a user and therefore the design of a user interface. The design documentation will provide an indication of functionality and the interaction with the user.

Better designs will include discussion of the rationale behind design decisions and an overview of any feedback given to the student and their response to it.

0	No rewardable content.
1-4 marks	The student has recorded some stages of the design process, including an indication of how the product will function, what the user interface will look like, and main content required. They have made some comments on design decisions.
5-7 marks	The student has recorded most of the design process, giving details of how the product will function, what the user interface will look like and content required. They have commented on important design decisions.
8-10 marks	The student has recorded the complete design process, clearly showing how the product will function, what the user interface will look like, and content required. They have justified important design decisions.

### 2b. Gathering and preparing content AO2 (6)

The student will gather content and prepare it for use by editing, optimising or structuring. The type of content used will depend on the type of product and what has been proposed and designed.

0	No rewardable content.
1-2 marks	The student has gathered content, some of which is appropriate, for use in the product.
3-4 marks	The student has gathered and prepared appropriate content for use in the product.
5-6 marks	The student has gathered and prepared a variety of appropriate content for use in the product.

**2c. Functionality AO1 (2), AO2 (10)**

Functionality involves the demonstration of whether a product works as designed and whether it shows awareness of purpose. A product may 'work' as the student has designed it but limited awareness of purpose may mean that it does not work as the user requires.

Better products work as intended but also do so in ways that fully meet the needs of the user. User instructions and testing support both aspects of functionality.

0	No rewardable content.
1-4 marks	Some aspects of the product work as intended and the functionality demonstrates limited awareness of purpose. User instructions are limited. The student has carried out limited functionality testing, but with little effect.
5-8 marks	Most aspects of the product work as intended and the functionality demonstrates some awareness of purpose. User instructions cover key aspects. Functionality testing has been carried out, but not all of it was effective.
9-12 marks	The product works as intended and the functionality demonstrates good awareness of purpose. User instructions are clear and complete. Effective functionality testing has been carried out.

### 2d. User interface AO1 (1), AO2 (9)

The user interface should match the needs and capabilities of the users. This should involve usability and accessibility.

The student's level of awareness of users' capabilities and needs is demonstrated by ease of use of the product, language matching the reading age and interests of users, screen displays and data entry forms using appropriate font types and sizes.

Better students will have demonstrated a good level of awareness and will have ensured that data entry is the minimum necessary and that data entered cannot cause functionality issues.

0	No rewardable content.
1-4 marks	The user interface demonstrates limited awareness of users' capability and needs. The student has carried out limited usability testing, but with little effect.
5-7 marks	The user interface demonstrates some awareness of users' capabilities and needs. Usability and accessibility testing has been carried out, but not all of it was effective.
8-10 marks	The user interface demonstrates good awareness of users' capabilities and needs. Effective usability and accessibility testing has been carried out.

## Activity 3

**3. Showcase AO1 (1), AO2 (9)**

The showcase provides an opportunity for students to demonstrate the quality of their product. It is intended that content from the product is re-purposed for the showcase.

Better students will have produced a showcase that does more than present the product – it focuses on the effectiveness of the product.

0	No rewardable content.
1-4 marks	The student has presented their product using some appropriate content.
5-7 marks	The student has showcased their product using appropriate content and features.
8-10 marks	The student has showcased their product using effective content and features to promote the product to the target audience.

### Activity 4

#### 4. Evaluation AO3 (12) QWC (i-iii)

The CAB will specify what evaluation the student must carry out. This will include evaluating their own and others' publications and use of ICT.

0	No rewardable content.
1-4 marks	<p>The student has made undeveloped comments about the outcomes of individual activities or the project as a whole.</p> <p>The student has used everyday language but their response lacks clarity and organisation. Spelling, punctuation and the rules of grammar are used with limited accuracy.</p>
5-8 marks	<p>The student has made comments, some of which are developed about the outcomes of individual activities and the project as a whole. Some suggested improvements are made.</p> <p>The student has used some specialist terms and their response shows some focus and organisation. Spelling, punctuation and the rules of grammar are used with some accuracy.</p>
9-12 marks	<p>The student has made effective evaluative comments about the outcomes of activities and the project as a whole, including feedback given and received, and their own performance. Effective improvements are suggested.</p> <p>The student has used appropriate specialist terms consistently and the response shows good focus and organisation. Spelling, punctuation and the rules of grammar are used with considerable accuracy.</p>

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## B Assessment

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### Assessment summary

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Units 1 and 3 are externally assessed through a 1 hour 30 minute examination paper.

Units 2 and 4 are internally assessed units.

<b>Unit 1:</b>	<b>Living in a Digital World</b>	<b>Unit code: 5IT01</b>
<p>This unit is externally assessed.</p> <p>It represents 40% of the total assessment weighting of the GCSE in ICT qualification and 20% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.</p> <p>It is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.</p> <p>The first examination is in June 2014.</p> <p>Thereafter examinations are available once a year in June.</p> <p>The examination paper is a question and answer booklet consisting of five compulsory questions. Each question has several parts.</p> <p>A variety of question styles are used: multiple-choice, short answer and extended-writing.</p> <p>The total number of marks available for the examination paper is 80.</p> <p>This unit addresses all three Assessment Objectives.</p>		

Unit 2:	Using Digital Tools	Unit code: 5IT02
<p>The unit is internally assessed under controlled conditions.</p> <p>It represents 60% of the total assessment weighting of the GCSE in ICT qualification and 30% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.</p> <p>Students must complete a controlled assessment task.</p> <p>The brief for the task is provided by Edexcel, and is available on the Edexcel website before the start of the academic year (see Information Manual for key dates). The task is broken down into a number of activities. The task allows some flexibility of approach within the activities.</p> <p>Centres can contextualise the task to best suit their centre-specific circumstances. Details of those aspects of a task that centres can modify are identified in the support notes for the task brief.</p> <p>Additional support notes will be provided with each controlled assessment brief.</p> <p>All work, with the exception of research and preparation, must be done under supervision. Research and preparation may be completed under limited supervision.</p> <p>Centres should allocate 40 hours of informal supervised time for students to work on the controlled assessment.</p> <p>Marking of the task is carried out by teachers and moderated by Edexcel against set assessment criteria.</p> <p>The total number of marks available for the controlled assessment task is 80.</p> <p>The first submission of students' work for moderation is in June 2014.</p> <p>Thereafter moderation is available once a year in June.</p> <p>This unit addresses all three assessment objectives.</p>		

Unit 3:	Exploring Digital Design	Unit code: 5IT03
<p>This unit is externally assessed.</p> <p>It represents 20% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.</p> <p>This unit is assessed through a 1 hour 30 minute examination paper set and marked by Edexcel.</p> <p>The first examination is in June 2014.</p> <p>Thereafter examinations are available once a year in June.</p> <p>The examination paper is a question and answer booklet consisting of five compulsory questions. Each question has several parts.</p> <p>A variety of question styles are used: problem-solving tasks, short answer and extended writing questions.</p> <p>The total number of marks available for the examination paper is 80.</p> <p>This unit addresses all three Assessment Objectives.</p>		



This unit is internally assessed under controlled conditions.

It represents 30% of the total assessment weighting of the GCSE in ICT (Double Award) qualification.

Students must complete a controlled assessment task.

The brief for the task is provided by Edexcel, and is available on the Edexcel website prior to the start of the academic year (see Information Manual for key dates). The task is broken down into a number of activities. The task allows some flexibility of approach within the activities.

Centres can contextualise the task to best suit their centre-specific circumstances. Details of those aspects of a task that centres can modify are identified in the support notes for the task brief.

Additional support notes will be provided with each controlled assessment brief.

All work, with the exception of research and preparation, must be done under supervision. Research and preparation may be completed under limited supervision.

Centres should allocate 40 hours of informal supervised time for students to work on the controlled assessment.

Marking of the task is carried out by teachers and moderated by Edexcel against set assessment criteria.

The total number of marks available for the controlled assessment task is 80.

The first submission of students' work for moderation is in June 2014.

Thereafter moderation is available once a year in June.

This unit addresses all three Assessment Objectives.

## Assessment Objectives and weightings

	% in GCSE	% in GCSE Double Award
AO1: Recall, select and communicate their knowledge and understanding of ICT	29-32%	28-31%
AO2: Apply knowledge, understanding and skills to produce ICT-based solutions	45-47%	46-48%
AO3: Analyse, evaluate, make reasoned judgements and present conclusions	22-25%	22-25%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>

## Relationship of Assessment Objectives to units

### GCSE

Unit	Assessment Objective			Total for AO1, AO2 and AO3
	AO1	AO2	AO3	
Unit 1: Living in a Digital World	24-27%	5-7%	7-10%	<b>40%</b>
Unit 2: Using Digital Tools	5%	40%	15%	<b>60%</b>
Total for GCSE	29-32%	45-47%	22-25%	<b>100%</b>

### Double Award

Unit	Assessment Objective			Total for AO1, AO2 and AO3
	AO1	AO2	AO3	
Unit 1: Living in a Digital World	12-14%	3-4%	4-5%	<b>20%</b>
Unit 2: Using Digital Tools	3%	20%	7%	<b>30%</b>
Unit 3: Exploring Digital Designs	12-14%	3-4%	4-6%	<b>20%</b>
Unit 4: Creating Digital Products	2%	21%	7%	<b>30%</b>
Total for GCSE Double Award	28-31%	46-48%	22-25%	<b>100%</b>

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## Entering your students for assessment

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### Student entry

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From summer 2014 onwards students will be required to sit all of their examinations at the end of the course. Students may complete the controlled assessment task(s) at any appropriate point during the course and controlled assessment work must be submitted for moderation at the end of the course.

Details of how to enter students for this qualification can be found in Edexcel's *UK Information Manual*, a copy is sent to all examinations officers. The information can also be found on Edexcel's website ([www.edexcel.com](http://www.edexcel.com)).

### Forbidden combinations and classification code

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Centres should be aware that students who enter for more than one GCSE qualification with the same classification code will have only one grade (the highest) counted for the purpose of the school and college performance tables.

Students should be advised that, if they take two specifications with the same classification code, schools and colleges are very likely to take the view that they have achieved only one of the two GCSEs. The same view may be taken if students take two GCSE specifications that have different classification codes but have significant overlap of content. Students who have any doubts about their subject combinations should check with the institution to which they wish to progress before embarking on their programmes.

## Access arrangements and special requirements

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Edexcel's policy on access arrangements and special considerations for GCE, GCSE, and Entry Level is designed to ensure equal access to the qualifications for all students (in compliance with the Equality Act 2010) without compromising the assessment of skills, knowledge, understanding or competence.

Please see the Edexcel website ([www.edexcel.com](http://www.edexcel.com)) for:

- the JCQ policy Access Arrangements, Reasonable Adjustments and Special Consideration
- the forms to submit for requests for access arrangements and special considerations
- dates for submission of the forms.

Requests for access arrangements and special considerations must be addressed to:

Special Requirements  
Edexcel  
One90 High Holborn  
London WC1V 7BH

## Equality Act 2010

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Please see the Edexcel website ([www.edexcel.com](http://www.edexcel.com)) for information with regard to the Equality Act 2010.

## Summary of conditions for controlled assessment

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### Controlled Assessment Brief (CAB)

Students complete one CAB (the task).

The CAB is an interactive onscreen publication. It is available to download from the Edexcel website.

Each CAB is valid for two academic years. A new CAB is made available each year.

## Controlled assessment

### Task setting: High control

**A high level of control** means that Edexcel sets the task (CAB) for students to complete.

#### **When will the tasks be available?**

The CAB is made available to centres before the start of the autumn term. It is available to download from the Edexcel website.

Each CAB is valid for two years. A new CAB is made available each year.

#### **When should the tasks be made available to students?**

Centres are advised to teach the relevant content of the unit before allowing students to start the controlled assessment.

### Task taking: Medium control

**Independent working:** students are expected to work on the CAB independently of their teacher, although this does not preclude them receiving formative feedback. Support or guidance that is more substantial than this must be noted on the student assessment sheet and the mark awarded must reflect the level of support given.

Students may require different levels of guidance at different points in the activities. Often, guidance at an early stage in a task/activity will build self confidence and motivation and will enable a student to access later stages independently.

**Collaborative working:** students must provide an individual response to the CAB. However, all students will have a **test buddy** who will provide feedback on the resources being developed. This can be done using collaborative tools such as, blogs, wikis and shared workspaces.

### **The controlled assessment**

A medium level of control means that students are able to work on the CAB only in a lesson, supervised by a teacher or invigilator.

At the end of each lesson, students' materials, paper based and electronic, must be collected in, stored securely and handed back at the beginning of the next lesson.

The teacher must ensure that **all** materials are securely stored at the end of each lesson.

Students must work individually, without intervention or assistance from others.

The work that students produce for the CAB must be kept under secure conditions at all times. This could be on a secure network drive, in a restricted access area of the school's VLE or intranet or on a portable storage device kept by the teacher.

Students may carry out research and gather assets such as photographs, video footage or audio files without supervision, outside the controlled environment. This 'raw material' must be brought into the classroom on a portable storage device, such as a memory stick, provided by the centre for this purpose.

Any digital material brought into the classroom in this way must be checked by the teacher before being transferred to the centre's secure storage area. The content of the portable storage device must be deleted once the files have been transferred.

Any manipulation or development of this material thereafter must be done under teacher supervision in the controlled environment.

### **Resources**

The same range of resources must be made available to all students within a centre. These could include:

- the internet
- onscreen and paper-based materials.

### **IT equipment**

Centres must ensure that the IT equipment used by students does not allow them to access any pre-prepared materials.

### **Time**

Centres should allow up to **40 hours** for students to complete their task.

## Authentication

All students must sign an authentication statement. Statements relating to work not sampled should be held securely by the centre. Those which relate to sampled students must be included with the work sent to the moderator.

In accordance with the Code of Practice, any candidate unable to provide an authentication statement will receive zero credit for the component. Where credit has been awarded by a centre-assessor to sampled work without an accompanying authentication statement, the moderator will inform Edexcel and the mark will be adjusted to zero.

## Task marking: Medium control

A **medium level of control** means that teachers mark the controlled assessment task using the assessment criteria provided in this unit. The assessment for each student is recorded on an individual Candidate Assessment Record (CAR).

Teachers must provide a rationale for the marks that are awarded to candidates and indicate any guidance that has been given on the CAR.

Further advice of the marking process for each CAB is provided in support notes.

The activities can be assessed by the centre as they are completed, rather than waiting until the whole task has been completed.

Centres are expected to internally moderate marks where there is more than one teacher involved in task marking.

Edexcel will externally moderate the marking process.

## Internal standardisation

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Teachers must show clearly how the marks have been awarded in relation to the assessment criteria. If more than one teacher in a centre is marking students' work, there must be a process of internal standardisation to ensure that there is consistent application of the assessment criteria.

## Authentication

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All students must sign an authentication statement. Statements relating to work not sampled should be held securely by the centre. Those which relate to sampled students must be included with the work sent to the moderator.

In accordance with the Code of Practice, any candidate unable to provide an authentication statement will receive zero credit for the component. Where credit has been awarded by a centre-assessor to sampled work without an accompanying authentication statement, the moderator will inform Edexcel and the mark will be adjusted to zero.

## Further information

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For more information on annotation, authentication, mark submission and moderation procedures, please refer to the *Edexcel GCSE in ICT and GCSE in ICT (Double Award): Instructions and administrative documentation for internally assessed units* document, which is available on the Edexcel website.

For up-to-date advice on teacher involvement, please refer to the Joint Council for Qualifications (JCQ) Instructions for conducting coursework/portfolio document on the JCQ website: [www.jcq.org.uk](http://www.jcq.org.uk).

For up-to-date advice on malpractice and plagiarism, please refer to the Joint Council for Qualifications (JCQ) *Suspected Malpractice in Examinations: Policies and Procedures and Instructions for conducting coursework/portfolio* documents on the JCQ website ([www.jcq.org.uk](http://www.jcq.org.uk)).

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## Assessing your students

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The first assessment opportunity for all units of this qualification will take place in the June 2014 series and in each following June for the lifetime of the specification.

Unit	June 2014	June 2015
Unit 1: Living in a Digital World	✓	✓
Unit 2: Using Digital Tools	✓	✓
Unit 3: Exploring Digital Designs	✓	✓
Unit 4: Creating Digital Products	✓	✓



## Awarding and reporting

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The grading, awarding and certification of this qualification will comply with the requirements of the GCSE/GCE Code of Practice, which is published by the Office of the Qualifications and Examinations Regulator (Ofqual).

The GCSE in ICT qualification will be graded and certificated on an eight-grade scale from A\* to G and the GCSE in ICT (Double Award) qualification will be graded and certificated on a 15-grade scale from A\*A\* to GG.

Individual unit results will be reported. The result for a student who fails to reach the minimum standard for a grade to be awarded will be recorded as U (unclassified) and will not be certificated.

The first certification opportunity for the Edexcel GCSE in ICT and Edexcel GCSE in ICT (Double Award) will be 2012.

The results of assessment units used for a GCSE award remain available for use towards a GCSE (Double Award) qualification.

## Unit results

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The minimum uniform marks required for each grade for each unit:

### Units 1 and 3

Unit grade	A*	A	B	C	D	E	F	G
Maximum uniform mark = 80	72	64	56	48	40	32	24	16

Students who do not achieve the standard required for a grade G will receive a uniform mark in the range 0-15.

### Units 2 and 4

Unit grade	A*	A	B	C	D	E	F	G
Maximum uniform mark = 120	108	96	84	72	60	48	36	24

Students who do not achieve the standard required for a grade G will receive a uniform mark in the range 0-23.

## Qualification results

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The minimum uniform marks required for each grade:

### GCSE in ICT cash-in code: 2IT01

Qualification grade	A*	A	B	C	D	E	F	G
Maximum uniform mark = 200	180	160	140	120	100	80	60	40

Students who do not achieve the standard required for a grade G will receive a uniform mark in the range 0-39.

### GCSE in ICT (Double Award) cash-in code: 2IT02

Qualification grade	A* A*	A* A	A A	A B	B B	B C	C C	C D	D D	D E	E E	E F	F F	F G	G G
Maximum uniform mark = 400	360	340	320	300	280	260	240	220	200	180	160	140	120	100	80

Students who do not achieve the standard required for a grade GG will receive a uniform mark in the range 0-79.

## Re-taking of qualifications

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Students wishing to re-take a GCSE are required to re-take all the units in the qualification. Students will be permitted to carry forward the results from the controlled assessment unit(s) if they wish and only re-take the externally-assessed units.

## Language of assessment

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Assessment of this specification will be available in English only. Assessment materials will be published in English only and all work submitted for examination and moderation must be produced in English.

## Quality of written communication

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Students will be assessed on their ability to:

- (i) write legibly, with accurate use of spelling, grammar and punctuation in order to make the meaning clear
- (ii) select and use a form and style of writing appropriate to purpose and to complex subject matter
- (iii) organise relevant information clearly and coherently, using specialist vocabulary when appropriate.

## Stretch and challenge

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Students can be stretched and challenged in all units through the use of different assessment strategies, for example:

- using a variety of stems in questions – for example analyse, evaluate, discuss, compare
- a requirement for extended writing
- use of a wider range of question types to address different skills – for example open-ended questions.

## Functional element

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GCSE in ICT will assess functional elements of ICT, as required by the Key Stage 4 Programme of Study for ICT.

## Malpractice and plagiarism

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For up-to-date advice on malpractice and plagiarism, please refer to the Joint Council for Qualifications *Suspected Malpractice in Examinations: Policies and Procedures* document on the JCQ website [www.jcq.org.uk](http://www.jcq.org.uk).

## Student recruitment

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Edexcel's access policy concerning recruitment to our qualifications is that:

- they must be available to anyone who is capable of reaching the required standard
- they must be free from barriers that restrict access and progression
- equal opportunities exist for all students.

## Prior learning

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This qualification builds on the content, knowledge and skills developed in the Key Stage 3 Programme of Study for ICT as defined by the National Curriculum Orders for England.

## Progression

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This qualification supports progress to further study, including GCEs, BTECs and Diplomas in IT, Computing and related subjects.

## Grade descriptions

<p><b>A</b></p>	<p>Learners recall, select and communicate a thorough knowledge and understanding of a broad range of ICT including the impact of its social and commercial use.</p> <p>They apply knowledge, understanding and skills to a variety of situations, selecting and using a range of ICT tools efficiently to solve problems and produce effective ICT-based solutions. They manipulate and process data efficiently and effectively. They effectively model situations, sequence instructions, interpret information and creatively explore and develop ideas. They work systematically and understand and adopt safe, secure and responsible practices.</p> <p>They systematically analyse problems, identifying needs and opportunities. They critically analyse and evaluate the way they and others use ICT. They iteratively review their work and make improvements where appropriate. They use ICT to communicate effectively, demonstrating a clear sense of purpose and audience.</p>
<p><b>C</b></p>	<p>Learners recall, select and communicate a good knowledge and understanding of ICT, including the impact of its social and commercial use.</p> <p>They apply knowledge, understanding and skills in a range of situations, applying ICT tools appropriately to address problems and provide ICT-based solutions. They select information and process data. They model situations, sequence instructions, select and use information, and explore ideas. They work using safe, secure and responsible practices.</p> <p>They analyse ways of addressing needs using ICT. They review and evaluate the way they and others use ICT. They review their work and make improvements where appropriate. They use ICT to communicate, demonstrating consideration of purpose and audience.</p>
<p><b>F</b></p>	<p>Learners recall, select and communicate a basic knowledge and understanding of aspects of ICT, including its use in the wider world.</p> <p>They apply limited knowledge, understanding and skills to address simple problems and create basic solutions using ICT tools. They select and present data and information, and use simple models and instructions. They demonstrate some awareness of the need for safe, secure and responsible practices.</p> <p>They respond to needs using ICT. They sometimes review and provide comments on the way they and others use ICT. They make simple modifications to their work in the light of progress. They use ICT to communicate, demonstrating limited awareness of purpose and audience.</p>



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## C Resources, support and training

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### FREE Teacher Support Materials

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A range of free **Teacher Support Materials**, including teacher's guide, lesson plans and student exemplar material is available to help you with the delivery of GCSE ICT.

If you would like to be kept up-to-date with any developments, please visit our website **[www.ict10.co.uk](http://www.ict10.co.uk)**

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### Edexcel published resources

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**Resources to support you and your students:** we are publishing a suite of GCSE ICT resources for teachers and students. These resources are written by qualification experts and highly respected authors, they are designed to engage all students and provide comprehensive support for your whole department.

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## Training

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A programme of professional development and training courses, covering various aspects of the specification will be arranged by Edexcel each year on a regional basis. We can also customise courses to your specific training needs, and deliver them at your centre or local authority.

Full details can be obtained from:

Training from Edexcel  
Edexcel  
One90 High Holborn  
London WC1V 7BH

Telephone: 0844 576 0027  
Email: [trainingbookings@edexcel.com](mailto:trainingbookings@edexcel.com)  
Website: [www.edexcel.com](http://www.edexcel.com)

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## Edexcel support services

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We have a wide range of support services to help you plan, teach and manage this qualification successfully.

### **ICT Subject Adviser**

We will have a dedicated ICT Subject Adviser. Our Subject Advisers are qualification and subject experts. You can contact them with any questions about the content or teaching of our specifications. Please visit [www.ict10.co.uk](http://www.ict10.co.uk) for our ICT Subject Adviser's contact number and email address.



## **Controlled Assessment Support Service (CASS)**

**Comprehensive support to help you manage controlled assessment.** To support you through this critical stage we have set up CASS to ensure you are kept up to date with the information you need to understand, deliver and assess units with controlled assessment components. By joining CASS you'll receive updates and get access to the following:

- **online communities** – get in touch with your peers and share your thoughts on Controlled Assessment through our online communities at **[www.edexcel.com/communities](http://www.edexcel.com/communities)**
- **podcasts** – covering how controlled assessment will affect you and how we can support you through these changes
- **exemplar materials** – our unique and exclusive range of exemplar materials across all controlled assessment units will be made available by the time you start delivering the units
- **training events**

You can visit CASS at **[www.edexcel.com/cass](http://www.edexcel.com/cass)**

There you will be able to find information regarding how to deliver Controlled Assessment for GCSE subjects.

**ResultsPlus** – our free online analysis service offers you unrivalled insight into your students' exam performance. It shows you clearly how your cohort performed, with useful comparisons to different types of institution. And for each exam paper you can see how individuals and groups performed, question by question.

With examiner reports and mark schemes a click away, this detailed analysis can help both you and your students target areas for improvement.

For further information, or find out how to access and use this service, please call 0844 576 0024 or visit **[www.edexcel.com/resultsplus](http://www.edexcel.com/resultsplus)**

**Ask the Expert** – To make it easier for you to raise a query with us online, we have merged our **Ask Edexcel** and **Ask the Expert** services.

There is now one easy-to-use web query form that will allow you to ask any question about the delivery or teaching of Edexcel qualifications. You'll get a personal response, from one of our administrative or teaching experts, sent to the email address you provide. You can access this service at **[www.edexcel.com/ask](http://www.edexcel.com/ask)**.

We're always looking to improve the quantity and quality of information in our FAQ database, so you'll be able to find answers to many questions you might have by searching before you submit the question to us.

### Support for Students

Learning flourishes when students take an active interest in their education; when they have all the information they need to make the right decisions about their futures. With the help of feedback from students and their teachers, we've developed a website for students that will help them:

- Understand subject specifications
- Access past papers and mark schemes
- Find out how to get exams remarked
- Learn about other students' experiences at university, on their travels and entering the workplace

We're committed to regularly updating and improving our online services for students. The most valuable service we can provide is helping schools and colleges unlock the potential of their learners. [www.edexcel.com/students](http://www.edexcel.com/students)

**Regional teams** – Do you know your dedicated Curriculum Development Manager? Every school and college in the country has an allocated member of the Edexcel team, regionally based, who is available to provide support, help, advice and training for your curriculum offer.

To contact your nearest Edexcel Regional Office, please see the contact details below:

Birmingham	0121 616 2585
Bristol	0117 950 1908
Cardiff	0292 079 4865
Manchester	0161 855 7560
Leeds	0115 224 2253

You can also call our customer services team on **0844 576 0027**, who can put you in touch with your nearest regional office.

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## Endorsed resources

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Edexcel also endorses some additional materials written to support this qualification. Any resources bearing the Edexcel logo have been through a quality assurance process to ensure complete and accurate support for the specification. For up-to-date information about endorsed resources, please visit [www.edexcel.com/endorsed](http://www.edexcel.com/endorsed)

Please note that while resources are checked at the time of publication, materials may be withdrawn from circulation and website locations may change.

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## D Appendices

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## Appendix 1 Key skills

### Signposting

Key skills (Level 2)	Unit 1	Unit 2	Unit 3	Unit 4
<b>Application of number</b>				
N2.1		✓		
N2.2		✓		
N2.3		✓		
<b>Communication</b>				
C2.1a	✓	✓	✓	✓
C2.1b	✓	✓	✓	
C2.2	✓	✓	✓	✓
C2.3		✓		✓
<b>Information and communication technology (ICT)</b>				
ICT2.1	✓	✓	✓	✓
ICT2.2	✓	✓	✓	✓
ICT2.3	✓	✓	✓	✓
<b>Improving own learning and performance</b>				
LP2.1	✓	✓	✓	✓
LP2.2	✓	✓	✓	✓
LP2.3	✓	✓	✓	✓
<b>Problem solving</b>				
PS2.1	✓	✓	✓	✓
PS2.2	✓	✓	✓	✓
PS2.3	✓	✓	✓	✓
<b>Working with others</b>				
WO2.1		✓		
WO2.2		✓		
WO2.3		✓		✓

### Development suggestions

Please refer to the Edexcel website for key skills development suggestions.



## Appendix 2 Wider curriculum

### Signposting

Issue	Unit 1	Unit 2	Unit 3	Unit 4
Spiritual		✓		✓
Moral	✓		✓	✓
Ethical	✓		✓	✓
Social	✓		✓	
Legislative	✓	✓		✓
Economic	✓			✓
Cultural	✓			✓
Sustainable	✓			
Health and safety	✓	✓		✓
European initiatives	✓			✓

### Development suggestions

Issue	Unit	Opportunities for development
Spiritual	2	exploring moral, cultural or environmental decisions at every stage of ICT tasks, achieving a feeling of wellbeing and spirituality  engaging with users to develop and design software to meet their needs
	4	
Moral	1	investigating the impact of digital inclusion and the digital divide locally, nationally and globally  considering accessibility issues when evaluating and developing digital products  acknowledging sources and respecting copyright when developing digital products
	2	
	3	
	4	
Ethical	1	exploring issues that arise when information is transmitted and stored digitally  knowing the importance of incorporating ethical and legal principles into design techniques
	2	
	3	
	4	
Social	1	discussing issues surrounding the use of social networking  eliciting from users their requirements when developing and designing digital products
	2	
	3	
	4	
Legislative	1	exploring the legislation relating to the use of ICT, including copyright and data protection
	2	
	3	
	4	

<b>Issue</b>	<b>Unit</b>	<b>Opportunities for development</b>
Economic	1 3 4	considering the advantages and disadvantages of shopping online rather than in the high street  considering the impact of ICT on working practices  understanding how poor design specifications can lead to the development of poor products and a proportional increase in resource costs to make corrections
Cultural	1 4	investigating how organisations use ICT to support different cultures  understanding the requirements and communication needs of all groups of people when developing digital products
Sustainable	1	exploring ways of minimising/mitigating the environmental impact of digital devices
Health and safety	1 2 4	discussing health and safety issues relating to the use of ICT equipment and the ways in which problems can be avoided  awareness of health and safety issues when working individually and in groups with ICT equipment
European initiatives	1	investigating how data protection issues in the use of ICT require EI and legislative consideration



## Appendix 3 Codes

Type of code	Use of code	Code number
National classification codes	Every qualification is assigned to a national classification code indicating the subject area to which it belongs. Centres should be aware that students who enter for more than one GCSE qualification with the same classification code will have only one grade (the highest) counted for the purpose of the school and college performance tables.	2650
National Qualifications Framework (NQF) codes	Each qualification title is allocated a National Qualifications Framework (NQF) code.  The National Qualifications Framework (NQF) code is known as a Qualification Number (QN). This is the code that features in the DfE Section 96 and on the LARA as being eligible for 16–18 and 19+ funding, and is to be used for all qualification funding purposes. The QN is the number that will appear on the student’s final certification documentations.	The QNs for the qualifications in this publication are:  GCSE – 500/7575/5  GCSE Double Award – 500/7482/9
Unit codes	Each unit is assigned a unit code. This unit code is used as an entry code to indicate that a student wishes to take the assessment for that unit. Centres will need to use the entry codes only when entering students for their examination.	Unit 1 – 5IT01 Unit 2 – 5IT02 Unit 3 – 5IT03 Unit 4 – 5IT04
Cash-in codes	The cash-in code is used as an entry code to aggregate the student’s unit scores to obtain the overall grade for the qualification. Centres will need to use the entry codes only when claiming students’ qualifications.	GCSE – 2IT01  GCSE Double Award – 2IT02
Entry codes	The entry codes are used to:  enter a student for the assessment of a unit  aggregate the student’s unit scores to obtain the overall grade for the qualification.	Please refer to the Edexcel <i>UK Information Manual</i> , available on the Edexcel website.

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