

# GCSE subject criteria for information and communication technology

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## Introduction

1. GCSE subject criteria set out the knowledge, understanding, skills and assessment objectives common to all GCSE specifications in information and communication technology (ICT). They provide the framework within which an awarding body creates the detail of the specification.
2. Specifications must also meet the regulators' general requirements, including the common and GCSE criteria as defined in *The statutory regulation of external qualifications* (QCA/04/1293).
3. Subject criteria are intended to:
  - help ensure consistent and comparable standards in the same subject across the awarding bodies
  - ensure that the rigour of GCSE is maintained
  - ensure that specifications build on the knowledge, understanding and skills established by the national curricula for England, Northern Ireland and Wales, and facilitate progression to higher level general or vocational qualifications in ICT
  - help higher education institutions, employers and other stakeholders, such as learners and parents/guardians, know what has been studied and assessed.
4. Any GCSE specification that contains significant elements of ICT must be consistent with the relevant parts of these subject criteria.

## Aims and learning outcomes

5. GCSE specifications in ICT should encourage learners to be inspired, moved and changed by following a broad, coherent, satisfying and worthwhile course of study. They should help learners to gain an insight into related sectors. They should prepare learners to make informed decisions about further learning opportunities and career choices.
6. GCSE specifications in ICT must enable learners 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.

## **Subject content**

7. The content of GCSE specifications in ICT must reflect the learning outcomes.
8. GCSE specifications in ICT must be consistent with the national curriculum key stage 4 programme of study requirements in the orders for England, and the statutory requirements for key stage 4 in Northern Ireland and Wales.
9. GCSE specifications in ICT must require learners 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.
10. GCSE specifications in ICT must require learners to demonstrate the ability to:
  - 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.

## Assessment objectives

11. All specifications in ICT must require candidates to demonstrate their ability to:

| Assessment objectives |   | Weighting (%) |
|-----------------------|---|---------------|
| <b>A01</b>            | <ul style="list-style-type: none"> <li>■ Recall, select and communicate their knowledge and understanding of ICT.</li> </ul>  | 25–35         |
| <b>A02</b>            | <ul style="list-style-type: none"> <li>■ Apply knowledge, understanding and skills to produce ICT-based solutions.</li> </ul> | 40–50         |
| <b>A03</b>            | <ul style="list-style-type: none"> <li>■ Analyse, evaluate, make reasoned judgements and present conclusions.</li> </ul>      | 20–30         |

## Scheme of assessment

12. GCSE specifications in ICT must allocate a weighting of 40 per cent to external assessment and a weighting of 60 per cent to controlled assessment in the overall scheme of assessment.
13. Question papers must be targeted at the full range of GCSE grades.

14. GCSE assessments in ICT must allocate a weighting of 45–55 per cent for the functional elements of ICT.

## Grade descriptions

15. Grade descriptions are provided to give a general indication of the standards of achievement likely to have been shown by candidates awarded particular grades. The descriptions must be interpreted in relation to the content in the specification; they are not designed to define that content.
16. The grade awarded will depend in practice upon the extent to which the candidate has met the assessment objectives overall. Shortcomings in some aspects of candidates' performance in the assessment may be balanced by better performances in others.

| Grade    | Description  |
|----------|--|
| <b>A</b> | <p>Candidates 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> |
| <b>C</b> | <p>Candidates 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</p>   |

|          |  |
|----------|--|
|          | <p>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>  |
| <b>F</b> | <p>Candidates 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> |