

GCSE CRITERIA FOR INFORMATION AND COMMUNICATION TECHNOLOGY

1 INTRODUCTION

- 1.1 These criteria define the subject-specific essentials for GCSE specifications in information and communication technology (ICT). Specifications must also meet the requirements of the appropriate national curriculum order for ICT (or IT) and the regulatory authorities' general requirements, including the Common and GCSE criteria.
- 1.2 A specification that meets the information and communication technology requirements of the appropriate national curriculum order must use the title Information and Communication Technology.
- 1.3 Any specification that contains significant elements of the subject information and communication technology must be consistent with the relevant parts of these criteria.

2 AIMS

- 2.1 All specifications must give students opportunities to:
 - i choose, use and design information and communication systems to carry out a range of tasks and to solve problems, making effective use of appropriate principles and techniques;
 - ii develop a broad and balanced experience of the range of information and communication systems and their applications and an understanding of their capabilities and limitations.

3 SPECIFICATION CONTENT

- 3.1 A specification entitled Information and Communication Technology must specify the content on which assessment will be based, consistent with the requirements of the appropriate national curriculum order.

4 KEY SKILLS

- 4.1 GCSE specifications in ICT should provide opportunities for developing and generating evidence for assessing the key skills listed below. Where appropriate, these opportunities should be cross-referenced directly to the criteria listed in Part B of the key skills specifications at specified level(s).
 - application of number
 - communication
 - information technology
 - improving own learning and performance
 - problem solving
 - working with others.
- 4.2 The requirements for achieving success at grade G and grade C in GCSE specifications in ICT must be demonstrably sufficient to meet the requirements covering both the external and the internal assessment components of the IT key skill specifications at level 1 and level 2 respectively.

- 4.3 The requirements for achieving success at grade G and grade C in GCSE (Short Course) specifications in ICT must be demonstrably sufficient to meet the requirements covering both the external assessment component and one of the specified two purposes of the internal assessment component of the IT key skill specifications at level 1 and level 2 respectively.

5 ASSESSMENT OBJECTIVES

- 5.1 A GCSE specification must require candidates to demonstrate their ability to:

- AO1 apply their knowledge, skills and understanding of ICT to a range of situations;
- AO2 analyse, design, implement, test, evaluate and document information and communication systems for use by others and develop understanding of the wider applications and effects of ICT;
- AO3 reflect critically on the way they and others use ICT;
- AO4 discuss and review the impact of ICT applications in the wider world;
- AO5 consider the social, economic, political, legal, ethical and moral issues and security needs for data which surround the increasing use of ICT.

- 5.2 A GCSE (Short Course) specification must require candidates to demonstrate their ability to:

- AO1 apply their knowledge, skills and understanding of ICT to a range of situations;
- AO2 analyse, design, implement and test information and communication systems and develop understanding of the wider applications and effects of ICT;
- AO3 reflect critically on the way they and others use ICT;
- AO4 consider the impact of ICT applications in the wider world;
- AO5 consider the social, economic, political, legal, ethical and moral issues and security needs for data which surround the increasing use of ICT.

6 SCHEMES OF ASSESSMENT AND ASSESSMENT TECHNIQUES

- 6.1 The weightings for the assessment objectives given in 5.1 and 5.2 are:

- AO1 and AO2 together 60-80%
- AO3, AO4 and AO5 together 20-40%

- 6.2 Each scheme of assessment must include a terminal examination with a minimum weighting of 40% and a maximum weighting of 60%.
- 6.3 Each scheme of assessment must include internal assessment with a minimum weighting of 40% and a maximum weighting of 60%.
- 6.4 Question papers must be targeted at two tiers of grades: A*-D (*A safety net for candidates entered for the higher tier in these specifications is provided. In these specifications, an allowed Grade E is awarded on the higher tier. Candidates failing to achieve Grade E are reported as Unclassified.*) and C-G.

7 GRADE DESCRIPTIONS

7.1 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 are intended to apply to the full GCSE specifications and the range covered by the short course specifications will be less broad. The descriptions must be interpreted in relation to the content of the specification; they are not designed to define that content. 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 the assessment may be balanced by better performances in others.

7.2

Grade F

Candidates show a basic knowledge of familiar, simple information processing and communication applications and of the techniques and systems needed to support them. They show knowledge of some of the basic ICT terms and definitions; respond to needs and opportunities and evaluate ways of addressing these using information and communication systems.

Candidates understand the need for precision in framing questions when finding, selecting and collecting information. They use ICT to explore, develop and interpret information. They develop, test and modify sets of instructions to automate processes and to make things happen and use computer models to detect patterns and relationships.

Candidates use ICT to share, exchange and present work and demonstrate how it contributes to the development of their ideas and reflect on their use of ICT and show some knowledge of its use in the wider world.

7.3

Grade C

Candidates show some knowledge and understanding of the range and scope of information processing and communication applications and of the techniques and systems, including the software and hardware sub-systems, needed to support them. They show a good understanding of basic ICT terms and definitions and are able to contrast and compare related ideas.

Candidates identify needs and opportunities and analyse, design and evaluate appropriate ways of addressing these using information and communication systems. They use complex lines of enquiry to find and select information, from a wide range of sources and explore, develop and interpret information to carry out a range of tasks and produce appropriate solutions to problems.

Candidates show awareness of efficiency and economy in developing, testing and refining sets of instructions to automate processes and to make things happen, including responding to external events. They use computer models to investigate and test hypotheses.

Candidates use ICT to share, exchange and present work, demonstrating a consideration of audience and purpose. They show awareness of the need to detect the loss or corruption of information and to prevent the abuse of personal information and reflect critically on their use of ICT and consider the effects of its use in the wider world.

Grade A

Candidates show a good knowledge and understanding of the range and scope of information processing and communication applications and of the techniques and systems, including the software and hardware sub-systems, needed to support them. They use ICT terms and definitions appropriately and are able to contrast and compare related ideas.

Candidates apply general principles of information processing to given situations and abstract general principles from given examples. They identify a range of needs and opportunities, carry out systematic analysis, and design and evaluate effective ways of using information and communication systems. Candidates evaluate information sources, software packages and computer models, analysing the situations for which they were developed and assessing their efficiency, appropriateness and ease of use.

Candidates use complex lines of enquiry to find and select information, using a wide range of sources. They explore, develop and interpret information to carry out a range of tasks and produce effective working solutions to a range of problems, including designing and implementing systems for others to use.

Candidates show efficiency and economy in developing, testing and refining sets of instructions to automate processes and to make things happen, including responding to external events. They use and develop computer models to investigate and test hypotheses.

Candidates use ICT to share, exchange and present work, demonstrating a clear sense of audience and purpose. They discuss methods of detecting the loss or corruption of information and describe steps which can minimise the likelihood of the abuse of personal information and reflect critically on their use of ICT and show understanding of the effects of its use in the wider world.