

# COMPUTING

Computers are now widely used in all aspects of government, business, industry, education, leisure and the home. In this increasingly technological age, a study of Computing, and particularly how computers are used in the solution of a variety of problems, is not only valuable to the students themselves, but also essential to the future well being of the country.

It is recognised that Computing has a great deal to offer. It integrates well with subjects across the curriculum. It demands logical discipline and imaginative creativity. It encourages an awareness of the management and organisation of computer systems; it extends students' horizons beyond the school environment in the appreciation of the effects of computer applications on society and individuals.



CG1	<p><b>Written Paper - 32.5% (3 hours) - 100 marks (130 UMS)</b>                      A written paper of one section, presented in a question and answer booklet format. There are no optional questions. Quality of Written Communication is assessed in one question only.</p>
CG2	<p><b>Internal Assessment - 17.5% - 100 marks (70UMS)</b>                      Candidates analyse, design, implement, test and evaluate a solution to a given problem requiring the production of original code (programming).</p>
CG3	<p><b>Written Paper - 32.5% (3 hours) - 100 marks (130 UMS)</b>                      A written paper of one section, presented as a question paper requiring a separate answer booklet. There are no optional questions. Quality of Written Communication is assessed in one question only.</p>
CG4	<p><b>Internal Assessment - 17.5% (Project) - 100 marks (70 UMS)</b>                      Candidates analyse, design, implement, test and evaluate a solution to a substantial problem of their choice requiring the production of original code (programming). This is a substantial piece of work, undertaken over an extended period of time.</p>

# ICT

ICT is a subject that requires candidates to consider individual, moral, ethical, social, cultural and contemporary issues. The specification provides a framework for exploration of such issues and includes specific content to address these issues. The difference between ICT and the Computing Course is that there is no requirement to use a programming language when completing the coursework. ICT is about the application of skills, knowledge and understanding.



Specifically, the course encourages candidates to develop:

- the capacity for thinking creatively, innovatively, analytically, logically and critically;
- the skills to work collaboratively;
- the ability to apply skills, knowledge and understanding of ICT in a range of contexts to solve problems;
- an understanding of the consequences of using ICT on individuals, organisations and society and of social, legal, ethical and other considerations on the use of ICT;
- an awareness of emerging technologies and an appreciation of the potential impact these may have on individuals, organisations and society.



# ICT

## SCHEME OF ASSESSMENT

IT1	<p><b>Written Paper - 30% (2 hours 15 mins) - 80 marks (120 UMS)</b> This paper assesses knowledge and understanding of Information Systems. Topics covered include:</p> <ul style="list-style-type: none"><li>• Data, information and knowledge</li><li>• Validation and verification</li><li>• Uses of ICT— Home, Business, Health and Education</li><li>• HCI's, Networks, Social Issues</li><li>• Simulation Modelling</li></ul>
IT2	<p><b>Coursework - 20% - 80 marks (80 UMS)</b> Candidates undertake DTP/Multimedia tasks, presenting the outcome for internal assessment and moderation by WJEC. Tasks include three elements. Firstly, candidates produce either a leaflet or newsletter. Secondly, use automated routines, such as a mail merged letter. Thirdly, a presentation to an audience, such as a web page or slideshow.</p>
IT3	<p><b>Written Paper - 30% - (2 hours 30 mins) - 90 marks (120 UMS)</b> A written paper of two sections, A and B, presented as a question paper requiring a separate answer booklet. Candidates answer all questions in Section A and one from two in Section B. Topics covered include:</p> <ul style="list-style-type: none"><li>• Networks, HCI's</li><li>• The Internet, Security</li><li>• Management Information Systems</li><li>• System Development Life Cycle</li></ul>
IT4	<p><b>Coursework - 20% - 100 marks (80 UMS)</b> Candidates analyse, design, implement, test and evaluate a solution to a problem of their choice requiring the use of a relational database. This is a substantial piece of work, undertaken over an extended period of time. It is internally assessed and moderated by WJEC.</p>

