GCSE COMPUTER SCIENCE

Subject Computer Science

Exam Board OCR

Course overview

Computer Science is the study of computers and computing concepts. It includes both hardware and software, networking, algorithms, programming (in Python), and the legal and ethical, environmental and societal challenges that face modern technology. Computer scientists play an important role in today's modern, digital society, and the GCSE in Computer Science prepares the computer scientists of tomorrow by providing them with the computational thinking skills and theoretical knowledge required to enter this diverse and crucial domain. Computer science is the newest Ebacc subject to be added to the national curriculum in England.

Course breakdown

Content overview	Assessment overview
Written paper one J277/01: Computer systems	
This component will assess: • 1.1 Systems architecture • 1.2 Memory and storage • 1.3 Computer networks • 1.4 Network security • 1.5 Systems software • 1.6 Impacts of technology on society	1 hour and 30 minutes 50% of total GCSE 80 marks Non-calculator
Written paper two J277/02: Computational thinking, algorithms and programming	
This component will assess: 2.1 Algorithms 2.2 Programming fundamentals 2.3 Producing robust programs 2.4 Boolean logic 2.5 Programming languages and IDEs	1 hour and 30 minutes 50% of total grade 80 marks Non-calculator

Assessment
There are three Assessment Objectives (AOs) in OCR GCSE (9-1) in Computer Science. These are detailed below.

Assessment Objective	
AO1 (30%)	Demonstrate knowledge and understanding of the key concepts and principles of Computer Science.
AO2 (40%)	Apply knowledge and understanding of key concepts and principles of Computer Science.
AO3 (30%)	Analyse problems in computational terms: • to make reasoned judgements • to design, program, evaluate and refine solutions.

Qualities needed for this course

- This is an academic course not a vocational one. As such, you should possess good literacy and numeracy skills: **These are strict entry requirements.**
    - Literacy skills - working **At** or above age expected levels to fully access the teaching and course materials, will need to be proficient in reading and writing.
    - Numeracy skills - working **above or well above** age expected levels due to the mathematical nature of ***some*** of the theory and programming tasks.
- The course will require you to be **dedicated and enthusiastic**. Learning computer science, especially the programming elements requires **regular time spent learning individually outside of classroom time**.
- The highly academic lessons necessitate students to **work independently, manage their own time and communicate using technical vocabulary**. If a student cannot work independently and stay on task without teacher supervision this course is not the correct choice for them.

Possible Paths Post 16
Computer Science offers diverse job opportunities, competitive salaries, and a dynamic work environment. Computer science professionals are in high demand in industries like software development, artificial intelligence, data science, cybersecurity, and more.

A-Level courses in Computing and Computer Science all follow on from what is taught on this course. There are also vocational continuations such as T-levels and BTECs. A broad variety of degrees are available in the field of computing/computer science should you want to study this to the highest level. As this is an Ebacc subject, the course is highly recognised by colleges and universities.

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