

COMPUTER SCIENCE

Type of Qualification: GCSE

How it is assessed: Two written exams – 1.5 hours each – 80% of the qualification
One unit of controlled assessment – 20% of the qualification

Course Overview:

Computer Science equips students with a solid foundation of the functionality of the internal and external components of computers, software programming and computer networks.

Computer Science is a different subject from Creative iMedia. Computer Science teaches students to understand the functions and inner workings of hardware components and software, while Creative iMedia teaches software skills for developing media products. It is recommended that students on the Computer Science course have a strong foundation in mathematics and a passion to learn programming, while students studying Creative iMedia should have a strong interest in creating graphics and documenting the process of creating graphical objects.

- **Unit 01: Computer systems:** This unit introduces students to the Central Processing Unit (CPU), computer memory and storage, computer networks, system security and system software. Students will become familiar with the impact of Computer Science in a global context through the study of the ethical, legal, cultural and environmental concerns associated with Computer Science.
- **Unit 02: Computational thinking, algorithms and programming:** students will be introduced to algorithms, computational thinking and programming. They will learn about programming techniques, how to produce robust programs, computational logic, translators and facilities of computing languages and data representation.
- **Unit 03: Programming project:** This unit is the controlled assessment. Students will complete a project which provides the opportunity to demonstrate their practical ability in computational thinking. Students will design, create and evaluation suitable algorithms and codes which will provide a solution to specific software problems outlined by the exam board.

Post 16 and Career opportunities:

This qualification will provide excellent preparation for higher level study and careers in Computer systems engineering, Software programming, Systems analysis, Artificial intelligence or allied fields such as Mathematics or Physics.

It supports progress to further study AS, A Level or a Degree in Computer Science.

