

**Computer Science**  
**Examination Board: AQA**

**What is the course like?**

Computer Science is a prestigious and modern GCSE focusing on how computers work. The modern world is driven by the advances in technology and studying this course will introduce you to many computing concepts, allowing both your programming skills and computing knowledge to grow. This course could act as your first stepping stone to a career in Computer Science. Pupils who have particularly enjoyed programming at KS3 (e.g. Python, Scratch) and want to learn more about the fundamentals of computers will enjoy this course. The course focuses on a range of theory topics all of which are up to date and relate to the current world of technology. Pupils will also learn how to break problems down into smaller chunks and write programs to solve larger problems, showcasing a wide range of problem solving, resilience and technical skills. Computer Science is not just learning how to code, it's teaching you how to think. Subjects such as Maths and Physics also compliment this course.

**What is studied during the course?**

- Look at the use of algorithms in computer programs and how to trace/write them.
- Apply creative and technical skills, knowledge and understanding in a range of programming projects.
- Learn how a computer works at a low level, considering concepts such as Binary, Hexadecimal and how sound/images are stored in a computer system.
- Look at the hardware/software requirements of computer systems and the various components needed to allow them to operate effectively.
- Learn about computer networks and how information/data can be shared between different types of networks (such as the Internet)
- Evaluate the effectiveness of computer programs and the impact of computer technology in society
- (such as ethics and cyber security)

**How is the course assessed?**

**Paper 1: Computational thinking and problem solving – written assessment (50% of the course grade)** Focuses on computational thinking, problem solving, and applied computing as well as theoretical knowledge of computer science all set in practical scenarios.

**Paper 2: Written assessment (50% of the course grade)**

Theoretical knowledge of data representation, computer networks, cyber security and ethics.

**Additional information**

- This qualification is rigorous and will require a large amount of self-motivation and independence when faced with a difficult problem.
- Programming is a key aspect of the course and you will be required to know how to write and trace code both on a Computer and on paper in the exam
- Computer science is part of the English Baccalaureate and is included as one of the qualifications that make up this combination of subjects.
- The course maps well with the AQA Computer Science A-level qualification taught at sixth form.
- Pupils who want to go on to higher study and employment in the field of computer science will find it provides a superb steppingstone.
- Furthermore, it is a great time to learn as programmers are in huge demand.

**For further information, please contact Mr Phillips.**