Computer Science
A Level

Exam Board: **OCR**

What is A-Level Computer Science?

OCR A Level Computer Science qualification helps students understand the core academic principles of computer science. Classroom learning is transferred into creating real-world systems through the creation of an independent programming project. OCR A Level Computer Science will develop the student's technical understanding and their ability to analyse and solve problems using computational thinking.

What will I study?

Component 01: Computer systems
Students are introduced to the internal workings of the (CPU), data exchange, software development, data types and legal and ethical issues. The resulting knowledge and understanding will underpin their work in component 03.

Component 02: Algorithms and programming
This builds on component 01 to include computational thinking and problem-solving.

Component 03: Programming project
Students are expected to apply the principles of computational thinking to a practical coding programming project. They will analyse, design, develop, test, evaluate and document a program written in a suitable programming language. The project is designed to be independently chosen by the student and provides them with the flexibility to investigate projects within the diverse field of computer science. We support a wide and diverse range of languages.

What entry requirements will I need?

A minimum of grade 6 or above in GCSE computer science. This course is not suitable for pupils without a computer science background.

How will I be taught?

Students will be taught through a variety of teaching techniques with a combination of practical and theoretical lessons.

How will I be assessed?

The course has been divided in 3 components. Component 1 and 2 are external exams, with a 40% weighting each. Component 3 is a non-exam assessment, with a weighting of 20% which will be completed in the classroom and marked, moderated and assessed by an external moderator.

What career opportunities does this open up?

According to the BCS (British Computing Society) an A-level in computer science can open up many career opportunities including and not limited to software development, data analytics, network engineering, cybersecurity, IT consulting.