

Computer Science: A-level (Awarding Body AQA)

ENTRY REQUIREMENTS

We expect students to have a grade 6 or better in GCSE Computer Science. We require students to have at least a grade 6 in Maths.

Note – This subject can be studied alongside the IT Level 3 Cambridge Technical Introductory Diploma

CONTENT

Paper 1: 40% of A-level

- Programming fundamentals
- Theory of computation
- Algorithms and measuring algorithmic complexity
- Programming data structures
- Object-orientated programming

Paper 2: 40% of A-level

- Representation of data
- Computer hardware and software
- Computer architecture
- Regular languages
- Networking and the Internet
- Databases and SQL
- Functional programming

Non-Exam Assessment: 20% of A-level

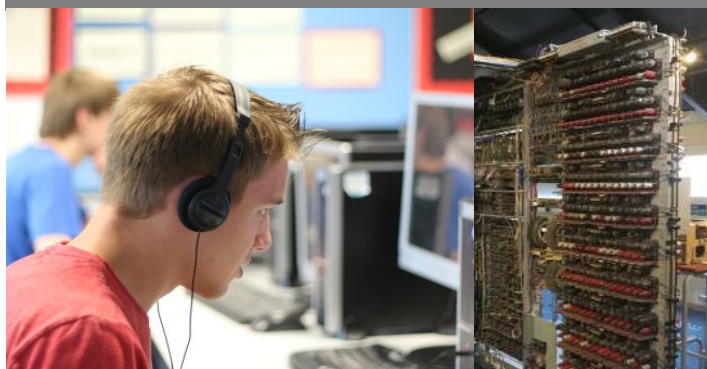
- Programming project or investigation

PROGRESSION

Studying Computer Science lays a solid foundation for higher education in subjects relating to computing or data analytics. It will also serve as a good basis for apprenticeships and employment in software development.

GENERAL COMMENTS

The most important part of Computer Science is problem-solving, an essential life skill which can be applied in all subjects. It is a rapidly changing and expanding field which drives innovation in Science, Engineering, Entertainment and Education, and can empower people to make a real positive difference in the world. The course is challenging and demanding but offers a lot to students with an interest in computing and an inquisitive mind.



"A computer would deserve to be called intelligent if it could deceive a human into believing that it was human"

Alan Turing



With technology advancing exponentially every day and becoming vital in daily life, it made choosing Computer Science a no-brainer for me.

The course not only looks at how the CPU, a small square of mostly silicone, can process billions of actions a second, but also how the internet connects the world and is possible even with the millions of devices worldwide. In addition, the course gave me invaluable skills, like problem-solving and the ability to logically break down a problem into its separate parts, which are essential for any career path.

Computer Science is used everywhere, opening many doors from coding to medicine, accounting to physics, making it an absolute must for any A-level combination.



BECKY POTTS