

GCSE

Computer Science

The Brunts Academy

What is Computer Science?

Computer Science is the study of computers and computational systems. It allows us to develop a range of skills which are key to being successful in the 21st century world. Computer science provides the foundation skills for many other subjects, and is going to be a big part of our future. It allows the development of well-rounded individuals who are prepared for going out into the world of work.

Computer Scientists study:

- Problem solving skills
- Programming and Software Design
- The structure and operation of the CPU
- Operating Systems - How these work, the differences between them, why different ones are necessary (i.e. Windows, iOS, Android)
- The physical components of the computer – taking them apart, analysing and designing systems for specific purposes
- Logic systems – how do modern electronics work, how can they be made more efficient and how can we use logic skills to improve the rest of our lives/subjects
- Networking - how computers talk to each other, how we share/stream files
- Network Threats/Defence – what are the dangers to our networks/data and how can we defend ourselves?

Key Features of the Course:

The content of the course is extremely varied and aims to develop the students' theoretical knowledge as well as their practical programming skills. Studying these areas will allow students to develop their analytical thinking and problem-solving skills – both of which are essential in the modern workplace.

A wide variety of topics are studied, generally grouped into the following themes:

- 1: Computer Systems
- 2: Computational Thinking & Problem Solving
3. Programming & Logic

What type of student is this suitable for?

Computer Science is suitable for students who:

- Have an enquiring and critical mind
- Like solving problems and being creative
- Are predicted at least a 5 at GCSE Maths
- Like learning about the how the tech world works
- Want to learn skills relevant to the 21st Century workplace

What could this course lead on to?

This course will place you in the ideal position to move onto a Level 3 course in Computer Science (or similar), or a Level 3 Apprenticeship. Additionally, would help with moving into games development, any technical subject area or any area which is likely to involve the use of problem solving or technology of any kind.

Course Details: OCR

Website: <https://www.ocr.org.uk/qualifications/gcse/computer-science-j277-from-2020/>

Course Contact: Mr M Hopkinson



AMBITION



INTEGRITY



INCLUSIVITY



ENDEAVOUR



RESILIENCE