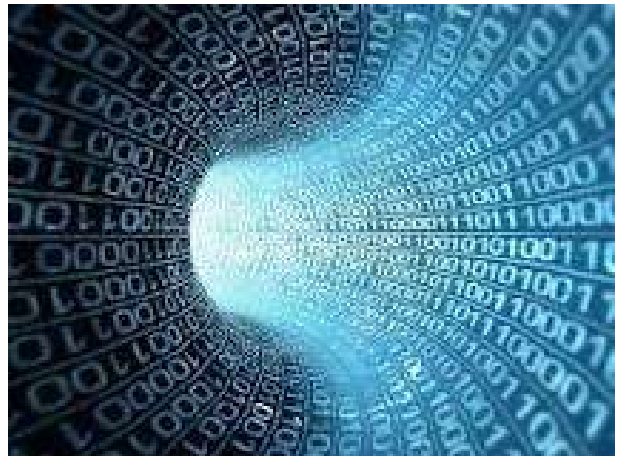


## What is the course about?

The computer science GCSE will teach you about Computer Systems covering all the physical parts involved in a computer, and Computational Thinking, Algorithms and Programming which is what you need to be able to write Computer programs and solve problems using computers. You will also learn to program and we offer exposure to VB.net and Python throughout the three years of study. If you already use a programming language and would like to continue using this then we can discuss.



## What topics will I study? The course is split into three main sections:

### Computer Systems

This is where you will learn about the physical part of a computer and their networks. The topics include: Computer Systems architecture • Memory • Storage • Wired and wireless networks • Network topologies, protocols and layers • Network security • System software • Moral, social, legal, cultural and environmental concerns

### Computational Thinking, Algorithms and Programming

This is where you start to think like a programmer. You will cover: Programming techniques • Translators and facilities of languages • Algorithms • High- and low-level programming • Computational logic • Data representation

### The Practical Part

You will write lots of different programs each required to solve a given task. You will learn to solve problems which are quite advanced in nature. You will be required to write sub programs also which, when brought together will solve a bigger task. The department will always look to support any students who has a particular interest in programming especially if they have already been learning in a particular language.

## What percentage of the final grade is from coursework?

The course is graded 100% on the final examinations. In saying this much of the classwork, especially in year 9 will be based around programming.

## What about after Key Stage 4? (Careers and College)

Obviously if you want to become a programmer, work in the IT or Games industry then Computer Science will start you off on this path however it is important to realise that Computer Science underpins Maths, Science, Animation, Web Design, Media and many other career paths which you may be considering. It is a rigorous GCSE which will be viewed favourably by colleges, 6<sup>th</sup> form centres and employers.

## Exam board and useful website?

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