

<b>Computer Science – Years 9, 10 &amp; 11</b>	Head of Department: Mr G Matharu
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### Overview

This GCSE course is designed for students to gain an understanding of the fundamentals of computer science. Students are already familiar with the use of computers and other related technology; however, the course will give them an insight into what goes on 'behind the scenes', including computer programming, which many students find absorbing.

### Aims and Benefits of the Course

The course provides excellent preparation for higher study and employment in the field of computer science. The increasing importance of information technologies means there will be a growing demand for professionals who are qualified in this area. Students who have taken a GCSE in Computer Science and who then progress to study the subject at A Level or University will have an advantage over their colleagues who are picking up the subject at these levels.

The course will develop critical thinking analysis and problem-solving skills. For many students it will be a fun and interesting way to develop these skills, which can be transferred to other subjects and even applied in day-to-day life. In this respect, the course makes an excellent preparation for students who want to study or work in areas that rely on these skills, especially where they are applied to technical problems. These areas include engineering, financial and resource management, science and medicine.

### Programming

Since one of the aims of the course is for students to understand computing through practical programming, the majority of the course will involve hands-on programming tasks. The main programming language taught will be Python, which is available as a free download, allowing students to develop their programming skills at home as well as in school.

### How you are assessed:

The assessment for your GCSE Computer Science course will consist of two components.

#### Paper 1

The first written paper (Principles of Computer Science) will include questions that target computer-related mathematics. It will last 1 hour and 40 minutes and count for 50% of your final grade.

#### Paper 2

The second paper, a practical paper (Application of Computational Thinking), will contain questions based on a scenario. It will last 2 hours in total and will count for another 50% of your final GCSE grade.

