Computer Science

To choose this subject, select Computer S from the online list.

Head of Subject: Mr M Highmore

Aims

• Develop understanding of current and emerging technologies and how they work.

• Look at the use of algorithms in computer programs.

• Apply mathematical skills to Computer Science.

• Acquire and apply creative and technical skills, knowledge and understanding of computing in a range of contexts.

• Develop computer programs to solve problems.

• Evaluate the effectiveness of computer programs/ solutions and the impact of computer technology in society.

Requirements

A strong aptitude for mathematics is essential, as is a logical and enquiring mind. You should enjoy problem solving in creative and innovative ways.

Exam Board: OCR

What will I study?

Computer systems: This section includes the following topics: Systems Architecture, Memory, Storage, Wired and wireless networks, Network topologies, protocols and layers, System security, System software, Ethical, legal, cultural and environmental concerns.

Computational thinking, algorithms and programming: This unit will teach techniques of programming and design of algorithms. A range of languages including Python

and Assembly will be taught.

Programming project: Students create solutions to computing tasks chosen from a set of options supplied by OCR, where skills in Development and Testing are taught.

How will you be assessed?

Computer systems and programming: 1hr 30mins, weighting 50%, written paper.

Computational thinking, algorithms and programming: 1hr 30mins, weighting 50%, written paper.