COMPUTER SCIENCE

Cambridge IGCSE Computer Science pupils study the principles and practices of computing and gain confidence in computational thinking and programming. They learn to program by writing computer code and they develop their understanding of the main principles of problem-solving using computers. Studying Cambridge IGCSE Computer Science will help pupils appreciate current and emerging computing technologies, the benefits of their use and recognise their potential risks.

Pupils apply their understanding to develop computer-based solutions to problems using algorithms and a high-level programming language. They also develop a range of technical skills, as well as the ability to test effectively and to evaluate computing solutions. Through using the principles of 'Computational Thinking', these skills can also be used in everyday life and future employment through the ability to analyse complex problems and to break these down into manageable tasks. Cambridge IGCSE Computer Science is therefore an ideal foundation for the underpinning of the knowledge required for many other subjects in science and engineering.

The Course aims are to develop:

- Computational thinking; that is thinking about what can be computed and how, and includes consideration of the data required
- Understanding of the main principles of solving problems by using computers
- Understanding that every computer system is made up of sub-systems, which in turn consist of further sub-systems
- Understanding of the component parts of computer systems and how they interrelate, including software, data, hardware, communications and people
- Skills necessary to apply understanding to solve computer-based problems using a high-level programming language

Assessment – Paper 1

- Computer Science Theory
- 60% 75 marks
- Short answer and structured questions
- Questions will be based on Section 1 of the Subject content.

Assessment – Paper 2

- Problem-Solving and Programming
- 40% 50 marks
- Short answer and structured questions
- 30 marks will be based on Section 2 of the Subject content
- 20 marks are from questions set on pre-release material.

Please note: This GCSE course is only open to those who can show good working knowledge of an appropriate high-level programming language or by completing and passing the OCR Computer Science Entry Level course in Year 9, which is supported by an enrichment session run at lunchtimes.

Mr P B Waugh
Head of IT