Head of Faculty: Mrs T Foster

Examination Board: OCR

The Computer Science GCSE will help you to gain an understanding of key computing

concepts and the fundamentals of programming, such as computer structures,

networking, Python programming skills and application testing. You will develop

creativity, logical thinking, independent learning and self-evaluation.

What will I learn on this course?

GCSE in Computer Science is engaging and practical, encouraging creativity and

problem solving. Students develop their understanding and application of the core

concepts in Computer Science. Students also analyse problems in computational terms

and devise creative solutions by designing, writing, testing and evaluating programs.

Computer Science will encourage students to:

Understand and apply the fundament principles and concept of Computer

Science, including abstraction, decomposition, logic, algorithms and data

representation

Analyse problems in computational terms through practical experience of solving

such problems, including designing, writing and debugging programs

Think creatively, innovatively, analytically, logically and critically

Understand the components that make up digital systems, and how they

communicate with one another and with other systems

Understand the impacts of digital technology to the individual and to wider society

Apply mathematics skills relevant to Computer Science

What are the mandatory modules or units - what will I have to study?

Component 1: Computer systems

Introduces students to the central processing unit (CPU), computer memory and storage,

data representation, wired and wireless networks, network topologies, system security

and system software. It also looks at ethical, legal, cultural and environmental concerns

associated with computer science. 1 hour 30 minutes, 50% of GCSE.

Component 2: Computational thinking, algorithms and programming

Students apply knowledge and understanding gained in component 1. They develop

skills and understanding in computational thinking: algorithms, programming techniques,

producing robust programs, computational logic and translators. 1 hour 30 minutes, 50%

of GCSE.