Aims and learning outcomes:

The Computer Science(8520) specification is set by AQA is academically challenging, offering the opportunity for students to experience real-world programming and provides a good understanding of the fundamental principles of computing.

Courses based on this specification should enable students to:

Understand and apply the fundamental principles and concepts of computer science, including logic, algorithms and data representation.

Analyse problems in computational terms through practical experience of solving problems, including designing, writing and debugging programs.

Think creatively, innovatively, 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 mathematical skills relevant to Computer Science.

Enable students to progress into further learning and/or employment.

Teaching and Learning Methods:

The nature of computer science means that lessons are varied between theoretical and practical. In a typical lesson, the teacher will explain concepts and perform demonstrations, while students observe and interact by asking questions. Where relevant and applicable there will be group based activities. A significant number of lessons will involve a hands on approach where pupils will be working on, writing and developing programs which they will subsequently test.

Why choose GCSE in Computer Science?

Students studying this specification will gain an understanding of the fundamental concepts around creating software application and develop an understanding of the structure of computer systems. The specification provides progression from Key Stage 3 and will provide excellent progression to ‘A’ level computer science.