

Section B—Options Choice Subjects

Computer Science

The course:

This GCSE gives you an excellent opportunity to investigate how computers work, how they're used, and to develop computer programming skills. The course will help you learn about critical thinking, analysis and problem solving. For example, some of the current investigations look at writing algorithms, understanding encryption and understanding pseudocode language.

You don't need to have studied this subject before and assessment is based on two written exams and a programming task.

Component 1 - Principles of Computer Science (written exam) The unit teaches the theory of a wide range of issues such as hardware and software, the representation of data in computer systems, databases, computer communications and networking, programming and more.

Component 2 - Application of Computational Thinking (written exam) The unit focusses mainly on problem solving and programming, what algorithms are, what they are used for and how they work.

Component 3 - Project (controlled assessment) This is the programming aspect of the course where pupils design, implement and test a program written in Python to solve a problem. A written report on the program forms part of the assessment that is conducted in controlled conditions. (20 hours).

Assessment

Exam paper 1 - 2 Hours - 40%

Exam paper 2 - 1 Hour and 40 mins - 40%

Programming project - 20 Hours - 20% (controlled assessment)

In order to succeed students will need:

- Commitment to work steadily throughout Key Stage 4 producing regular coursework and meeting all deadlines
- Interest in the use of IT in all aspects of life
- Sound basic knowledge of IT skills and techniques

