The GCSE course encourages students to develop their understanding and application of the core concepts in computer science. Students will analyse problems in computational terms and devise creative solutions by designing, writing, testing and evaluating programs. The course focuses on three main areas: Computer Systems; Computational thinking, algorithms and programming; and a programming project.

Units

– Systems Architecture

– Memory

– Storage

– Wired and wireless networks

– Network topologies, protocols and layers

– System security

– System software

– Ethical, legal, cultural and environmental concerns

– Algorithms

– Programming techniques

– Producing robust programs

– Computational logic

– Translators and facilities of languages

– Data representation

– Programming project: programming techniques, analysis, design, development, testing and evaluation and conclusions

Assessment Breakdown

Computer systems (01)

80 marks, 1 hour and 30 minutes, Written paper (no calculators allowed) 50% of total GCSE

Computational thinking, algorithms and programming (02)

80 marks, 1 hour and 30 minutes, Written paper (no calculators allowed) 50% of total GCSE

Programming project (03)

Totalling 20 hours Non-Exam Assessment (NEA)