

GCSE Computer Science

Curriculum Manager: Mr S Howe (Head of ICT)

Teaching Staff: Mr S Howe and Mr D Burgess

Curriculum Overview:

Key aspects of the qualification include; how computers work, making connections, data matters, computational thinking, practice and programming.

Unit 1: Principles of Computer Science (1hr 30 min Written Exam, 50%)

This component will introduce learners to the Central Processing Unit (CPU), computer memory and storage, wired and wireless networks, network topologies, system security and system software. It is expected that learners will become familiar with the impact of Computer Science in a global context through the study of the ethical, legal, cultural and environmental concerns associated with Computer Science.

Unit 2: Application of Computational Thinking (2Hr written Exam, 50%)

This unit encourages learners to apply knowledge and understanding using computational thinking. Learners will be introduced to algorithms and programming, learning about programming techniques, how to produce robust programs, computational logic, translators and facilities of computing languages and data representation. Learners will become familiar with computing related mathematics.

Unit 3: Programming project (20hr Non-Exam Assessment)

This is a practical unit where you will create a program that provides a solution to a specified problem. You will be expected to design,

Assessments:

- There will be half termly tests on each topic area.
- Practise and real NEA
- An end of year mock exam

Homework:

Students complete their homework using Google Classroom or on 'Show My Homework'. All homework will be set using these systems and pupils can access it at home with their appropriate log in details.

Other Useful Information:

The ICT department run a programme of extra-curricular catch up sessions for all KS4 pupils on a Tuesday, Wednesday and Thursday after school in rooms 1,2 and 3. In addition pupils will find all lesson material and extra support on Google classroom