OLDHAM HULME GRAMMAR SCHOOL

Nurturing Potential since 1611

COMPUTER SCIENCE

Computer Science demands both logical discipline and imaginative creativity in the selection and design of algorithms and the writing, testing and debugging of programs. It integrates well with subjects across the curriculum.

The WJEC Eduqas A level in Computer Science encourages learners to develop:

- An understanding of, and the ability to apply, the fundamental principles and concepts of computer science, including abstraction, decomposition, logic, algorithms and data representation.
- The ability to analyse problems in computational terms through practical experience of solving such problems, including writing programs to do so. The capacity for thinking creatively, innovatively, analytically, logically and critically.
- The capacity to see relationships between different aspects of computer science. Mathematical skills.
- The ability to articulate the individual (moral), social (ethical), legal and cultural opportunities and risks of digital technology.

The WJEC Eduqas A level in Computer Science has been designed to give an in-depth understanding of the fundamental concepts of computer science and a broad scope of study opportunities.

The two year program is made up of 4 components.

Year 12 – Components 1 and 2.

Component 1: Programming and System Development written Examination: 2 hours 45 minutes 40% of qualification.

Component 2: Computer Architecture, Data, Communication and Applications written examination: 2 hours 45 minutes 40% of qualification.

Year 13 – Components 3.

Component 3: Programmed Solution to a Problem. Non-exam assessment 20% of qualification.

This component requires the learners to investigate, design, prototype, refine the design, implement, test and evaluate a computer solution to a substantial problem of their own choice.

The work undertaken in this component will be the discussion, investigation, design, prototyping, refinement of design, implementation, testing and evaluation of a solution to a problem chosen by the candidate. It should demonstrate the discussion, investigation, design, prototyping, refinement of design, implementation, testing and evaluation skills involved in problem solving using a computer and include the development of a piece of work over an extended period of time. The candidate should produce a word-processed report of the work carried out.