

# Computer Science

A- Level - OCR

## General Course Information

Computer Science is a practical subject where learners can apply the academic principles learned in the classroom to real world systems. It is an intensely creative subject that combines invention and excitement, that can look at the natural world through a digital prism. The course highly values computational thinking, helping learners to develop the skills to solve problems, design systems and understand the power and limits of human and machine intelligence.

## How is the course assessed?

The course is run over two years and contains two modules and a computer programming project in the final year.

Component One contains the majority of the content of the course and will be assessed at the end of the two years. The Computing Principles exam paper is worth 40% and the exam lasts 2 hour 30 minutes. 140 marks for the exam paper.

Component Two relates principally to problem solving skills that are needed by learners to apply knowledge and understanding encountered in the module. The Algorithms and Problem Solving exam paper is worth 40% and the exam lasts 2 hour 30 minutes. 140 marks for the exam paper.

The programming project component is a practical portfolio based assessment with a task that is chosen by the teacher or learner and is produced in an appropriate programming language of the learner's or teacher's choice. The project contains the following areas to complete:

- Analysis
- Design
- Implementation
- Evaluation

The The project is worth 20% of the course and has 70 marks available.

## Who's it for?

The college entry requirements are 5 GCSE's grades 9-4. The requirement for this course is 5 grade 6's at GCSE. Three of which should be Computer Science or Creative iMedia (D2\*, D2, M2), Mathematics and English Language. Previous knowledge of the subject is very desirable.

A positive attitude and commitment to the subject is expected. Computing is a challenging and exciting subject and students will need to be well motivated and use programming software to complete work.

## Progression

Computing is classified as one of the sciences by most institutions, giving students maximum flexibility when considering further/higher education choices. Degree courses can be followed in:

- Information Systems.
- Computer Science.
- Software Engineering.
- Forensic Computing.
- Business and Management.

