

Computer Science

Course Leader: Mr Hulme n.hulme@huttongrammar.org

Pass rate: 100%
A*-B rate: 100%

Exam board AQA

Average class size 6

What topics are covered in this subject?

This course is aimed at students who are keen on practical computer work and especially keen on problem-solving. You will gain a comprehensive knowledge of computer systems and programming skills. The course covers a wide range of computing applications including data processing, control systems, artificial intelligence, the theory of relational databases and networking, along with hardware configurations. Programming is taught using Python. As with any A level subject, it involves hard work and some perseverance but it also brings its own rewards.

How is this subject taught?

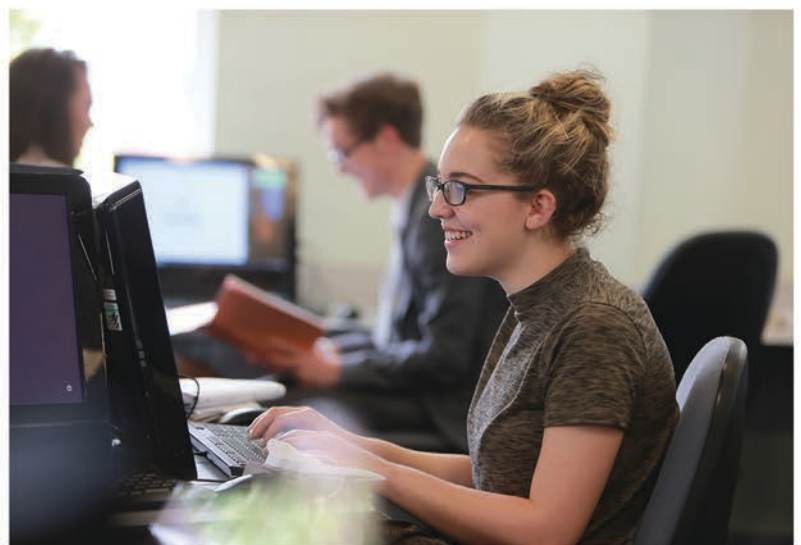
The lessons will have an extensive amount of both theory, and practical application of the theory using a variety of different methods, from creating simulations using Arduino to programming using Python. About half of class time is spent at the computers.

All of the practical application leads to the completion of a Programming Project in Year 13, a project which is chosen by the student. As well as the Programming Project (20%), there are 2 exams (both 40%). Paper 1 assesses the student's ability to program with a small amount of theory; the students are given a skeleton program which they use and modify to answer questions on the exam. Paper 2 assesses the rest of the theory.

What are the enrichment opportunities in this subject?

Over the years we have built a good relationship with SoccerManager, who are based on Preston Docks. Often we are asked to go and test the latest version of their game and give them some feedback.

We currently compete in the Tomorrow's Engineers Robotics Challenge, and whilst Sixth Form students are too old to compete, we always look for A level Computer Science students to mentor the students who will take part.



Where does this subject lead at 18+?

Games Design

Artificial Intelligence

Computer Science

Games Programming

Systems Analysis

Software Engineering

Informatics