Computer Science (OCR) - A Level

Computer Science is about looking beneath the surface of the computer industry. We will look at building software programs from initial concepts, through design, coding, implementation and testing.

Course Content & Assessment

Computer Science is a practical subject where students can apply the academic principles learned in the classroom to real-world systems. It's an intensely creative subject that combines invention and excitement, and can look at the natural world through a digital prism.

In the study of this qualification learners will develop: an understanding and 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 to see relationships between different aspects of computer science and Mathematical skills.

Why Take this course? Who is it for?

This is a perfect course for students who have excelled in computational thinking and who wish to further their education into the more technical areas.

A-Level Computer Science will encourage learners to analyse problems in computational terms and devise creative solutions by designing, writing, testing and evaluating programs.

In addition, you will explore the advanced computing concepts that underpin how technology works and how mathematics has formed a significant part of the development of Computer Science.

Much of the course is theory based and follows on from that taught at GCSE level, although a GCSE in Computer Science is not essential it should be noted that some of the concepts covered at GCSE are expanded on and therefore a willingness to learn outside of class is essential. A good level of mathematics is essential.

How is the course examined

- Learners will sit 2 formal examinations and use computational methods to solve a real world problem.

Examinations:

- Two Written Exams which total 80% of the course
- Unit 1 Computer Systems
- Unit 2 Algorithms and Programming
- One Coursework project to solve a real world problem (20% of course)

Future opportunities

This course would leave students with the ideal foundation to study Computer Science at a degree level or go into the computer industry. The skills acquired through Computer Science complement most careers, however some of the possible career paths include: Software Developer, Web Application Developer, Computer Systems Analyst, Mobile App Developers or Information Security Analyst.

Entry Requirements:	
GCSE	Minimum requirement: Grade 6 in Mathematics or 6 in Computer Science
Contact Name	Mr G. Smith smithg02@brigshawtrust.com