



# A level Computer Science



## Overview

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

The aims of this qualification are to enable learners to 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 think creatively, innovatively, analytically, logically and critically
- The capacity to see relationships between different aspects of Computer Science
- Mathematical and logical skills.

## Assessment

The content of this A Level in Computer Science is divided into three components:

- A unit on Computer Systems
- A unit on Algorithms and Programming
- A Programming Project

A Level in Computer Science	
Computer Systems	A written 2hr 30 mins exam set and marked by exam board.
Algorithms and Programming	A written 2hr 30 mins exam set and marked by exam board.
Programming project	Non-exam assessment (strict controlled assessment)

Exam Board (TBC)



Specification

Computer science H446

<http://www.ocr.org.uk/qualifications/as-a-level-gce-computer-science-h046-h446-from-2015/>

## Subject Specific Entry Requirements

Most important for those who want to study A level Computer Science is a proven track record at GCSE Computer Science and/or very strong mathematical ability and evidence of programming ability. An enthusiasm for the subject and a willingness to learn will also be essential. Those students who are unsure of their suitability for the course should speak to a Computing Teacher.

**“Computer Science lets me build upon my passion for programming, and it has encouraged me to explore different languages such as Python, C# and HTML.”**

**Alex**

## Progression and Career Opportunities

A Level Computer Science prepares you very well for a range of degrees or high level apprenticeships including: Computer Science, Software Engineering, Computer Games Development, Information Systems, Forensic Computing, Computer Technologies, Network Management and Web Design and Services.

The rigour of the subject at A level is well recognised and will show logical and analytical ability in an academic subject that is also creative and practical. Students with the ability to use computational techniques to break problems down and work through technical solutions are highly-valued in the UK economy.