

**Why choose Computer Science:** 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 and practical subject that utilises the natural curiosity students have for how things work. Computer Science combines invention and excitement to allow students to examine the world through a digital prism.

**Future Prospects:** A Computer Science A-Level is a well-respected qualification to hold; giving opportunities to access relevant university courses as well as technical careers. The content covered in the Computer Science A-Level coincides with content taught during the first year of most university Computer Science courses, meaning that students are more attractive enrolment prospects at better universities.

**Enrichment Opportunities:** Students have access to a range of devices which will enrich their learning experience, including the Raspberry Pi and Oculus Rift. With ICT facilities available before and after school, students are able to study whenever possible to make sure they are able to tackle the challenges presented by the course.

**Entry Requirements:** A minimum of grade A in Maths or B in Computer Science GCSE. Grade B or above in English is compulsory.



*"Computer Science is an amazing course both academically and mentally. It teaches you to think outside of the average and restrictive processes and is essential to the modern age as technology is advancing rapidly, opening up a wide range of opportunities."*

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**What I will learn on this course:** The two main elements of Computer Science are Computing principles and Programming.

Computing Principles delves into the realm of what is happening within the computer; looking at its hardware and how data is processed.

Programming involves using algorithms to plan a program as well as learning a programming language (Visual Basic) and creating programs.

**Assessment and Examination:** Highbury Grove School students will complete the AS-level qualification in the first year (consisting of two AS-Level exams) and the full A-Level in the second.

The full A-level course includes two 2 hour and a half hour exams worth 40% each, as well as a practical programming project worth 20% - all at the end of the second year.

**Why choose Computer Science at Highbury Grove:** With specialist Computer Science teachers delivering the course, students have the opportunity to access a wealth of knowledge and guidance beyond what is typically available.

### Course Outline:

Computer Science gives students the opportunity to learn how a computer functions, from the internal hardware and software to the processing of data within. Students will have a good understanding of all the components needed for a computer to function and what their independent and collective jobs are.

Students will be challenged to adopt a new way of thinking when learning programming concepts that could eventually be a basis for learning how to program mobile apps. The programming element of the course allows students to create useful applications that require creativity and thinking outside of the box.



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