A-LEVEL

Computing

Computing is a rich and deep discipline in its own right, like Physics and Mathematics. It explores foundational principles and ideas, rather than training students in skills related to particular software. Computing's aspects of design, theory and experimentation are drawn from Engineering, Maths and Science respectively. Computing involves concepts and questions that have the potential to change how we view the world.

How will I be assessed?

Paper 1

What's assessed: this paper tests a student's ability to program, as well as their theoretical knowledge of Computer Science.

Assessed
- On-screen exam: 2½ hours
- 40% of A-Level

Questions
Students answer a series of short questions and write/adapt/extend programs in an Electronic Answer Document provided by us.

AQA will issue Preliminary Material, a Skeleton Program (available in each of the Programming Languages) and, where appropriate, test data, for use in the exam.

Paper 2

What's assessed: this paper tests a student's ability to answer questions about subjects such as data representation, computer systems, network and databases.

Assessed
- Written exam: 2½ hours
- 40% of A-Level

Questions
Compulsory short-answer and extended-answer questions.

Non-exam assessment

What's assessed: the non-exam assessment assesses student's ability to use the knowledge and skills gained through the course to solve or investigate a practical problem. Students will be expected to follow a systematic approach to problem solving.

Assessed
- 75 marks
- 20% of A-Level

2 year only

How will I be taught?

The emphasis is on *computational thinking*, a problem-solving method based on abstract thinking; algorithmic and mathematical reasoning; and scientific and engineering-based thinking. It is a fundamental life skill[1] that is applicable to nearly any subject. Students who learn computational thinking begin to see a relationship between different subjects, as well as between school and life outside of the classroom[2].

During the first year, you will also learn to program in Java, which you will use to solve computational problems and to explore key concepts.

[1] Jeannette Wing, http://bit.ly/khscomp1
[2] Google, http://bit.ly/khscomp3

Why study it?

Board: AQA

Computing has an immense impact on modern life. The job prospects are excellent and the field is rigorous, intellectually vibrant and multi-faceted. As well as traditional career routes such as Software and App Development, Computing nowadays plays an essential role in every possible discipline, from Entertainment to Communications; Medicine to Weather Forecasting; Design and Engineering; and from Criminology to Manufacturing.

For more information

contact Mrs Abbott