carmel
college

Inspiring minds.
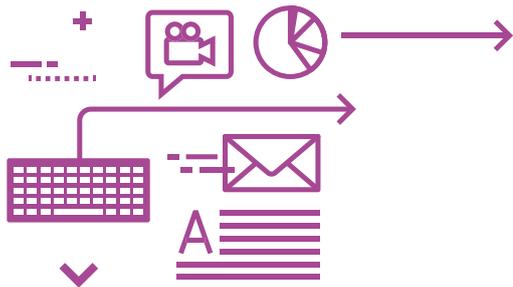Shaping futures.

COMPUTER SCIENCE

COURSE GUIDE 2019

Everybody in this country should learn how to program a computer, because it teaches you how to think.

STEVE JOBS, CO-FOUNDER OF APPLE

COMPUTER SCIENCE
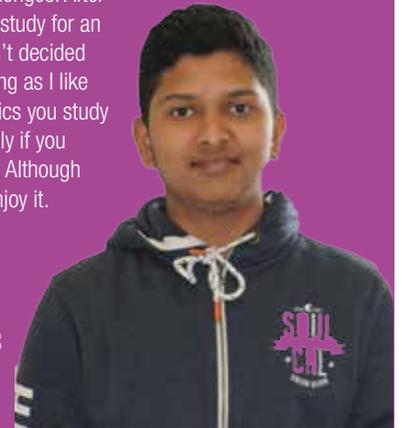
Linear A Level
Exam Board: OCR

Why choose Computer Science at Carmel?

A Level Computer Science is a traditional course for those interested in following a career in Computer Programming, Systems Analysis, Network Engineering or any other Computer Science related career path. During the course you will gain an in-depth understanding of how the computer works and what it can do. It is suited to those who want to extend perhaps their personal interest in computers, or to develop skills such as programming. Computer Science is an intensely creative subject that combines invention and excitement, and can look at the natural world through a digital prism.

The Computer Science Department promises to provide you with a high standard of teaching and extra support to ensure you are successful. We want you to enjoy your studies and be part of our excellent achievements.

What will I study?

The A Level specification introduces students to the internal workings of the Central Processing Unit (CPU), how data is exchanged, how to develop software and the legal and ethical issues associated with the use of computer systems. Students will be encouraged to use computational thinking and utilise algorithms to solve problems. The specification will provide insight into, and experience of how computer science works, stimulating your curiosity.

How will I be assessed?

You will be assessed through two exams and a piece of coursework. The exams will be sat at the end of the two year course.

- Unit 1 Computer Systems (exam) – 40% of total A Level

- Unit 2 Algorithms and Programming (exam) – 40% of total A Level

- Unit 3 Programming Project (coursework) – 20% of total A Level

What are the entry requirements for this course?

For A Level Computer Science: **GCSE grade 6 in Mathematics, grade 4 in English Language** and a **grade 5 in Computer Science** (if studied).

Can I study Computer Science if I have not taken it at GCSE?

Yes, we will deliver all the skills and knowledge required for these courses.

How successful are Carmel's students?

Summer 2018 Examination Results:
A Level Computer Science Pass Rate, 78% A*-C

Student Voice

"The parts of the course that I like the most are learning how to write sections of code and the mathematical type aspects of the course such as the use of binary arithmetic."

"The environment in the class is fantastic. I feel free to voice my opinion and get help from the teachers or my peers around me. Computer programming in my opinion is a team effort and I appreciate the environment I am in which enables me to do that."

"The content of the course is extremely interesting, regular mini-tests and mock papers help improve exam technique and encourage revision for topics."

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