COMPUTER SCIENCE

The Computer Science GCSE (previously Computing) is the next step for those pupils who have excelled in and developed a real passion for the subject at Key Stage 3. Whilst learners will no doubt already have strong foundational knowledge of the subject through their work at Key Stage 3 or earlier, this course is designed to give an in-depth and comprehensive understanding as to how computing devices actually work and influence our daily lives. The effects of Computer Science have been profound and life changing on the way we complete and process every aspect of our daily lives; the future is only going to see this dependency increase. Technology never stands still and having the ability to process and interact with developments and innovations within the field will enable someone to process and engage with the changing digital landscape around them.

CASE STUDY

Josephine Year 11
I chose this subject because I enjoy problem solving and was always interested in how computers work.

My favourite part of the course so far has been programming and algorithms because you can implement the coding skills that you have learnt.

I have also enjoyed learning about systems architecture and storage/ compression methods.

I now know the basics of how to code and how computers function.

I plan on completing a STEM degree so the python coding skills gained throughout this course will be very useful.

To get yourself ready for Year 10 try and practice some python coding.

As part of their study, students develop their critical thinking in the following areas:

- Problem solving
- Systems Architecture
- Networks and network topologies
- System security
- System software
- Algorithms
- Programming techniques
- Computational logic
- Translators and facilities of languages
- Data representation
- Ethical, legal, cultural and environmental concerns

The course is highly demanding but an equally rewarding one that can open many doors for those who complete it. The nature of the course is perfect for those who enjoy being consistently challenged and tested in order to improve their knowledge and ability.

Assessment Breakdown
Computer Systems:
Exam, 50%

Computational thinking, algorithms and programming:
Exam, 50%

*programming is now assessed through content on the second exam paper.

Where can I go with Computer Science?
A Computer Science GCSE qualification is highly sought after by post-16 educators and complements further study in the following subjects: science and medicine; automotive, aerospace and architectural engineering; finance and banking; software engineering/development and many other fields.

For further information contact: Mr Ravenscroft