

Department Title:

Computing

Department Vision:

The primary aim of the Computing department is to provide students with the opportunity to embrace technology and to inspire them within the subject. Our students enjoy learning about how computers function as well as the challenge of problem solving, and this subject provides the perfect platform for them to discover their full potential within the area of Computer Science.

Year 8:

During Year 8, students receive 3 fifty minute lessons a fortnight where they are able to learn a wide range of ICT and Computer Science skills necessary for a solid foundation and preparation for Key stage 4. The following topics are the basis of what is covered in Year 8:

- An introduction to Computer Programming using Scratch
- Students create a Quiz using a range of functions in Excel
- Students learn about Control Systems using Flowol to prepare for programming concepts and algorithms
- E-Safety - online safety and cyberbullying
- Basic fundamentals of Databases – storage, retrieval, search and presentation of information.
- Introduction to advanced programming using Python or Visual Basic

Year 9-10:

Students in Year 9 have the opportunity to study the OCR GCSE Computing a year early. Though the course is challenging, it builds on the knowledge gained at Key Stage 3 with a focus on computer architecture, analysis and problem solving as well as computer programming.

This new specification is split into three components:

Component 01 – Computer Systems (40% of total GCSE)

This component mainly focuses on the physical aspects of the computer, computer architecture and networking.

Component 02 – Computational Thinking, Algorithms and Programming (40% of total GCSE)

This components focuses on the theory of programming; including programming techniques and developing robust programs.

Component 03 – Programming Project (non-exam assessment) (20% of total GCSE)

A non-examined component where student programming knowledge and skills are put into practise in order to develop engaging solutions.

Year 10–11:

Students in Year 10 have the opportunity to study the OCR GCSE Computing. It is a challenging course but it builds on the knowledge gained at Key Stage 3 with a focus on computer architecture, analysis and problem solving as well as computer programming.

This new GCSE specification is split into three components:

Component 01 – Computer Systems (40% of total GCSE)

This component mainly focuses with the physical aspects of the computer, computer architecture and networking.

Component 02 – Computational Thinking, Algorithms and Programming (40% of total GCSE)

This components focuses on the theory of programming; including programming techniques and developing robust programs.

Component 03 – Programming Project (non-exam assessment) (20% of total GCSE)

A non-examined component where student programming knowledge and skills are put into practise in order to develop engaging solutions.

Sixth Form:

The aims and objectives of the Advanced GCE in Computing are to give learners an in-depth understanding of how computer technology works. The A Level provides excellent preparation for those students that plan to go onto higher study and employment in the field of Computer Science. The A Level Computing course builds on the skills acquired during the GCSE course and helps to further develop a logical approach to problem-solving skills, a greater understanding of how computer systems work as well as critical thinking through the study of computer programming.

Related Careers:

- Games Developer
- IT Consultant
- Programmer
- Network Engineer
- Systems Analyst
- Web Developer