

Why is this Important?

Computers are ubiquitous and it is increasingly important to know not just what we can do with them but how they work, so that we can use them more effectively. There is now so much information flowing around us that knowing how to avoid overload, and how to manage the information we need, is an essential skill for the century.



The Department

- Ms S England – Curriculum Leader
- Mr A Brown – Teacher
- Mr P Hearty – Teacher
- Mrs J Cheal – Curriculum Support Teaching Assistant

All the teachers teach Key Stage 3 Computing, and Ms England and Mr Hearty teach Key Stage 4 and 5 Computer Science and Digital Information Technology. Every computer suite has sufficient workstations for students to work without being required to share (though shared work is sometimes the way we study) and interactive boards and projectors, with speakers. There is also additional software and hardware installed in those labs that supports the study of computer science specifically.

Key Stage 3

The Computing Curriculum covers important introductory skills such as sequencing, instruction design and a basic user-friendly introduction to programming. Digital Literacy such as e-safety and appropriate conduct online is included in every year, and additional projects across the terms remind students of the currency of the skills we communicate. In addition, Year 9 students study physical computing, using breadboards, to provide a wider base of skill and knowledge about the use of computer kit to help them with their future studies regardless of whether they study IT or Computing.

Year 7 study includes - social media influences and effects; computer games design; encryption; search engines.

Year 8 study includes - embedded computer systems; animation; programming; artificial intelligence.

Year 9 study includes - a digital literacy project; programming; artefacts; circuit design.

Key Stage 4

Students can choose from study of a vocational skills course which carries full GCSE equivalence (BTEC Tech Award Digital Information Technologies) as well as studying traditional GCSE Computer Science. The current vocational qualification is comprised of two Controlled Assessment windows (one in Year 10, one in Year 11) and a final, synoptic written examination in the summer of Year 11. The first controlled assessment is based around Component 1, called Exploring User Interface Design Principles and Project Planning Techniques. The second assessment is based around Component 2, called Collecting, Presenting and Interpreting Data. The final paper is based around Component 3, called Effective Digital Working Practices.

The traditional Computer Science GCSE is assessed through examination (two written papers). The first paper is based around the content identified for Component 1, and the second for the content in Component 2.

Key Stage 5

Students can choose study of A Level Computer Science. This qualification builds on the experiences of students in Key Stage 4 and having studied those courses is an advantage. The traditional Computer Science A Level is assessed through two written exams, one for Component 1, and one for Component 2, and a Non-Examined Assessment project comprising 20% coded coursework in a portfolio that incorporates standard nomenclature and structure.