

Computing Curriculum Intent

The Computing Curriculum at Colmers is designed to enable students to **be more** successful and confident users of technology in the 21st Century. Through a high quality Computing education students will be able to **do more** using computational thinking and creativity to understand and change the world. The subject will also allow students to **know more** about the three vital strands: Computer Science, Digital Media and Information Technology.

During Key Stage 3, pupils will be exposed to all elements of Computing.

We start Year 7 with Information Technology; developing what pupils already **know** about computers, providing opportunities for pupils to **do** more using a range of Microsoft Office packages, so pupils can **be** digitally literate for learning both in school and beyond.

In Years 7, 8 and 9 we introduce Computer Science; teaching pupils to **know** the fundamental programming constructs, so they can **do** more with their programming knowledge using visual and textual languages, in order to allow pupils to **be** confident and experienced programmers.

Finally, in Years 8 and 9 we introduce Digital Media; teaching pupils to **know** the categories of audience and purpose, so they can create appropriate digital products which allow them to **do** more using image editing and web development tools, in order to allow pupils to **be** creators of innovative digital content.

During Key Stage 4, students will have the opportunity to achieve qualifications in both Computer Science and Creative iMedia which will **open minds** to an ever evolving field and **open doors** to a vast wealth of careers.

The aim of Computer Science in Years 10 and 11 is for pupils to **know** the fundamental principles and concepts of computational thinking including abstraction, decomposition, logic, algorithms and data representation. Pupils will be able to **do** more by analysing problems in computational terms through practical experience of solving such problems including designing, writing and debugging programs. Pupils will therefore **be** resilient problem solvers and programmers and have an awareness of the impact digital technology has on individuals and the wider society, considering ethical, legal, cultural and environmental factors.

The aim of Creative iMedia in Years 10 and 11 is for pupils to **know** the fundamental principles and concepts of digital media including factors that influence product design, use of media codes and conventions, pre-production planning techniques, legal issues and creation/publishing/distribution considerations. Pupils will be able to **do** more by applying learning and practical skills to real-life contexts and work situations relevant to the media industry and more widely. Pupils will therefore **be** creative developers of multimedia products and have an awareness of real world industry practices for product design.