Hazelwick
Sixth Form

effort achieves

Computer Science

Why study Computer Science?
You will have engaging and challenging insight into the world of Computer Science. You will further your coding skills across different languages and create a fully functioning program from a selection of briefs, be that an application, utility or, educational video game.

What skills will I gain from studying Computer Science?
You will be taught to code in several high level languages and develop your own understanding and logical thought processes in computer science. You will build up an understanding of algorithms and their use within the computing industry together with computer systems, how they work and operate as well as how they are built and structured. This extended project is completed across Year 12 and Year 13 and is worth 20% of your final grade. Within this project you will follow industry standard design methodologies to design, create and test a product for a specified user. This project offers you the chance to create a mobile app or a game.

Having studied Computer Science what opportunities will be open to me?
We have students who progress to university at the highest levels to study Computer Science, Game Development and Web Development. We also have close links with leading industry experts and companies providing real-life application opportunities to our students. A large number of companies offer Apprenticeship Degrees requiring the skills gained from A Level Computer Science.

Entry requirements
Grade 6 in Maths. (GCSE Computer Science is not essential but, if taken, then a grade 6 is required, if Cambridge Nationals in IT was taken then a merit is required) Please note that you cannot opt for both Computer Science and AAQ Applications Development.

Exam Board – OCR **Specification code/no**. - H446

Topics covered in Year 12
Varying Languages: Assembly and Procedural, Arithmetic, Little Man Computer, Systems Architecture, The role of the CPU, CISC Vs. RISC, Databases and SQL, Operating Systems, Virtualisation, Algorithmic thinking and pseudocode

Topics covered in Year 13
Sign/Magnitude, Number conversions, Floating Point Binary, Negative Numbers, Linked List, Binary Trees, Advanced Architectures, Protocols, Lexical Analysis, Syntax Analysis and Links and Loaders