ICT and Computing Curriculum

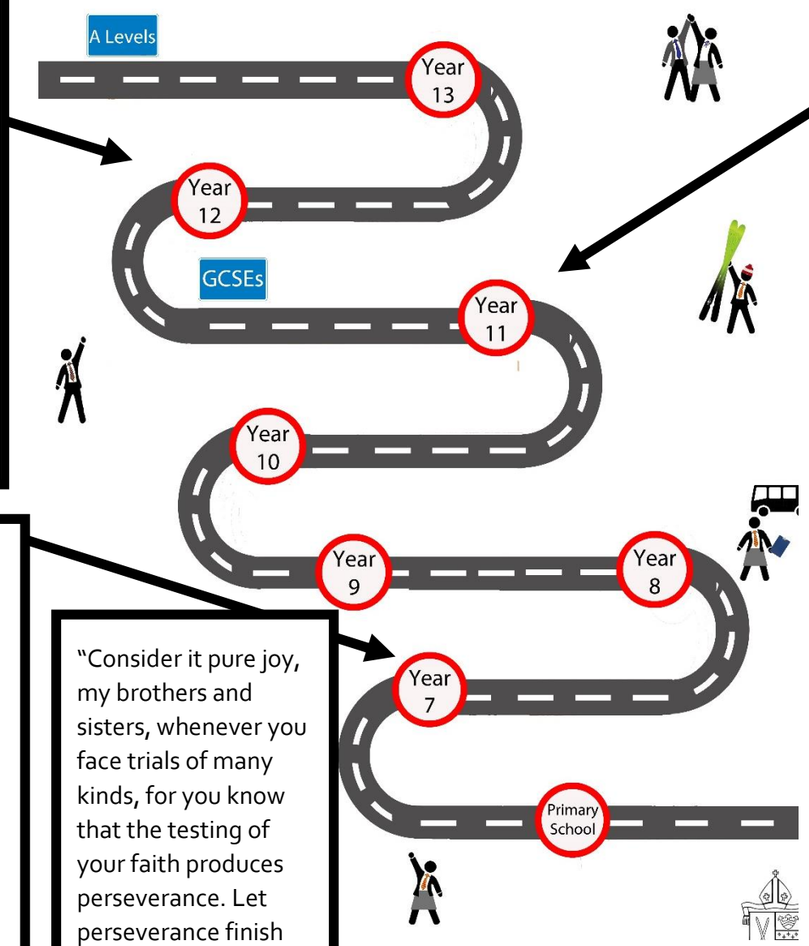
The ICT and Computing curriculum is a 7-year journey in which follows the school's aims of Learning, Loving, Living. For example, we prepare students to be resilient in their learning and to work collaboratively and safely whilst living in an ever-changing world of technology. The curriculum is designed to ensure students experience a balance of the technical theory of how computers work, and the practical skills involved with using them. Our schemes of learning use examples of real-world problems which require students to design, produce and evaluate different solutions. The ICT and Computing curriculum is specifically designed to suit different styles of learners, encompassing both logical and creative thinkers, and providing a platform for students of a range of abilities to succeed. Our students are encouraged to develop independence and take risks in order to help overcome any future challenges they may face.

Key Stage 5

Our KS5 Computer Science curriculum is designed around student specific interests for future pathways. Depending on the specialist area our students are interested in, be it software engineering, cyber security etc., our SOL targets this and allows for exploration of a range of technical and mathematical topics through the use of computational thinking and problem solving. Our curriculum aids students in building a strong understanding of recent changes in technology and helps them prepare for a career in this ever-changing sector. KS5 students are frequently set independent projects to improve their practical programming skills and will complete a substantial programming project in year 13 which includes the opportunity to collaborate with industry.

Key Stage 3

Our KS3 curriculum is designed to help students explore a range of topics and skills, laying the foundation for further development as a scholar of ICT or Computer Science. The SOL also gives students key skills to help them excel in other subjects as well as their future careers. The KS3 curriculum is based on 5 main principles which are found throughout our SOL: Resilience, Digital Literacy, E-Safety, Problem Solving and Creativity. A range of technical and creative schemes are used to build on these 5 principles and give students the opportunity to demonstrate their skills and knowledge in a practical environment. Our year 7 and 8 curricula cover a wide range of topics designed to create a well-rounded student proficient in programming and digital literacy. Our year 9 curriculum links these topics together and allows students to begin to specialise in either ICT or Computer Science.



"Consider it pure joy, my brothers and sisters, whenever you face trials of many kinds, for you know that the testing of your faith produces perseverance. Let perseverance finish its work so that you may be mature and complete, not lacking anything."
James 1:2-4

Key Stage 4

At KS4, our curriculum offers students the opportunity to specialise in either Computer Science or ICT. Computer Science gives students the chance to study robotics and develops computational thinking through a range of theory topics. Computer Science students are regularly exposed to algorithmic thinking tasks and are expected to complete an independent programming project in year 10. This allows our students to build independence and take risks, which leads to the development of creative solutions.

ICT at KS4 gives students the opportunity to use different software to address real-world scenarios and produce a range of media products which meet a technical requirement. During KS4, students study pre-production skills, digital images, multimedia products and computer game design. They learn to analyse, design, develop and review their work and are encouraged to be creative in their approach throughout the curriculum.

Skill Development

The ICT and Computing curriculum gives students the opportunity to learn multiple programming languages to solve problems using computational methods. It regularly informs and encourages safe practices when using technology throughout the students' journey. It develops students logical thinking and numeracy and produces students who are skilled in the use of a wide range of Microsoft Applications, as well as other software. The curriculum helps prepare students for future employment by developing key skills such as digital literacy, collaborative working, problem-solving, risk-taking and communication. It allows students to master specific skills that are relevant to their chosen specialism.