Curriculum Detail: Information and Communications Technology

Information and Communications Technology (ICT) has developed in recent years to combine practical elements with the theoretical aspects of computing. Year 7 students begin with an introductory topic that helps explore their existing skills sets and this progresses into an investigation into future technologies which also serves to show how the Internet can be used as an effective research tool. Students are given the opportunity to create websites, databases, Internet safety videos and spreadsheets; are introduced to video editing; and develop their skills using a range of advanced software packages, exploring topics such as email and encryption along the way.

In year 8, activities covering topics such as spreadsheet modelling; Flash; and the safe and responsible use of computers and websites allow students to develop their understanding from both practical and emotional viewpoints. Software packages such as Scratch and Flowol introduce students to programming languages and the importance of sequencing.

In year 9, students' understanding of computer crime and health and safety issues arising from working with computers for prolonged periods of time is consolidated. Students are introduced to languages such as Python, HTML and Small Basics and build on their basic programming skills to write lines of code resulting in a range of outputs. Students are given the opportunity to design and create their own mobile app.

Year 10 students undertake a series of activities designed to build on and consolidate existing skills such as the use of investigation techniques; the recording of sources; working with databases and images; creating spreadsheet models using different formulas and functions; and creating digital media (e.g. posters and web banners).

In year 11, students look at a range of relevant theory topics such as online shopping and mobile technology and complete the controlled assessment work they began in year 10 before preparing for exams.