Information Technologies

Curriculum intent:

The Computer Science Department intends to equip all pupils to use computational thinking and creativity when understanding the modern world. We understand that Computer Science has deep links to Mathematics, Science and Design and Technology. We aim to build on this and teach the principles of Information and Computation.

We equip pupils to use Information Technology to create programs, systems and a range of content. Computing ensures that pupils become digitally literate at a level suitable for the future workplace and as active participants in a digital world.

Year 10

	Content	Concepts and Skills
TERM 1	**Project planning** Pupils will develop an understanding of the ICT concepts & tools used for project planning. **Data importation & manipulation** Pupils will learn the mechanics of data importation, selection, manipulation & analysis.	• Client brief analysis. SMART objectives. Work plans, GANTT & PERT charts • Risks, mitigating risks & data dictionaries. • Wireframes creation, analysis & testing. • Key spreadsheet & database skills - Absolute cell referencing & functions. Cross worksheet integration. Charts & graphs. Spreadsheet security, validation, forms, queries & reports
TERM 2	**Systems Creation Project** This unit of work challenges each student to work independently for a period of 20 hours developing a solution to an examination board set assignment.	• Scenario based analysis. • Planning – setting SMART objectives, GANTT chart and asset log creation, risk analysis. • Systems development. • Testing in development – phase reviews. • Final testing & evaluation
TERM 3	**Information selection & presentation.** Pupils will be taught to select, integrate & use appropriate software tools & techniques. **Iterative Reviews** Pupils will understand how detailed reviews can be carried out, developed & communicated.	• Target audience analysis & embedding data. • Document reviews, slide masters & mail merging. • Basic HTML, HTML navigation & CSS3. • Phase reviews. • Client reviews. • Final evaluation