Computing

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 9

	Content	Concepts and Skills
TERM 1	**Computer Crime & Cyber Security** This unit gives an overview of cyber threats, safeguarding against attacks & legislation. **Python Next Steps** This unit enables pupils to enhance their use of this text based programming language.	• Develop an awareness of email scams. • Understand different types of hacking & how to protect personal data. • Become aware of the laws relating to Computer Misuse, Data Protection & Copyright. • Programming of loops & implementing lists. • Embedded use of procedures & functions.
TERM 2	**Computing for Business** This unit focuses on planning, creating, linking and evaluating software solutions. This is a project based piece of work that allows pupils to develop their own solutions to a set problem.	• Planning using the project life-cycle. • Setting objectives, SMART targets & risk mitigation. • Creation of spreadsheet, database, presentation & web based products. • Testing – stages involved, identification of errors & corrections. • Evaluation techniques & phase reviews.
TERM 3	**HTML & Website Development** This unit explores the fundamentals of HTML based web design. **Website Creation** This unit allows pupils to develop their own websites using web authoring software.	• Understanding HTML as a programming language. • Use of cascading style sheets in design. • Creating web forms. • Page creation & use of master page templates. • Navigation structures & menu design. • Use of interactive components & testing.