Subject	Aims and Purpose/Intent	Content Summary
Computer Science Year 12	In year 12, Computer Science will encourage pupils to: • Further develop their ability to think computationally • Develop enhanced coding techniques, in C#, in order to solve problems • Develop their understanding of Object-Oriented Programming • Experience a new IDE • Consider their own project, and how they will need to further develop their skills independently in order to solve a problem devised by themselves • Understand computational procedures at a processor level • Further develop their understand of how databases can be used to store and manipulate large volumes of data • Develop understanding of computer networks and associated protocols and procedures	High-end Programming Language • Basics of C# • Use of OOP Computational Thinking • Elements of computational thinking Problem Solving • Problem solving • Programming techniques Computer Systems • Assembly language • Memory addressing • Software and types of application • Software development • Database development • Networks Project • Analysis • Design

Subject	Aims and Purpose/Intent	Content Summary
Computer Science Year 13	In year 13, Computer Science will encourage pupils to: • Appreciate the variety of ways data can be stored and retrieved, and the benefits and limitations of each • Further develop their understanding of a variety of search and sort algorithms • Understand key 'shortest path' algorithms • Enhance their understanding of the features of computer networks • Further develop understanding of logic gates • Develop techniques for performing computer arithmetic and Boolean algebra • Develop understanding of computer legislation • Further appreciate understanding of moral and ethical issues surrounding computers and their use	Project • Development • Testing • Evaluation Problem Solving • Algorithms Computer Systems • Networks • Data types • Computer arithmetic • Data structures • Logic gates and Boolean algebra • Data transmission • The internet Legal, Ethical, Moral and Social Issues • Computer law • Ethical, moral and social issues