

**Subject: Computing      Year 7      Ability Mixed**

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Topic	Getting Started	Introducing Spreadsheets	Computers – Past, Present and Future	Binary and Computer Logic	Programming in Scratch	End of Year Project
Topic overview Pupils will learn...	Understand how to use networks (the school network and the internet) safely and responsibly, develop skills needed to work efficiently across a range of software and identify good practice when using digital tools	Understand the key uses of spreadsheets and develop the skills needed to collect, analyse (model) and present data for the needs of specific users	Explore the development of computers over history through discrimination of information and understand how to present successfully to an audience through combining the use of a range of software	Understand how digital devices process data through the user of binary, Boolean logic and encoding and develop the skills needed to perform processes in order to represent numbers, text and images	Explore the key programming constructs: sequence, selection and iteration and develop an understanding of using block-based programming to plan, design and evaluate solution to computational problems	Combine a range of IT knowledge to design a digital product that meets a specific brief, focused on the ways in which technology will impact on the future of society and individuals

**Subject: Computing      Year 8      Ability Mixed**

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Topic	Internet Safety, Cyber Security and Encryption	Advanced Spreadsheets	Computer Components	Algorithms	Python Programming - Sequence	End of Year Project
Topic overview Pupils will learn...	Understand the impact of operating online upon our daily lives, including new and developing security risks and the best methods of tackling them	Explore a range of complex spreadsheets tools and develop the knowledge needed to collect accurate data and automate processes to meet the needs of specific users	Understand the roles played by inputs, outputs, storage, memory, processors within a computer system and recognise the most appropriate components and systems for specific needs	Understand the fundamentals of computational thinking (abstraction, decomposition, pattern recognition and algorithms) to solve a range of problems through flow diagrams and text-based programming	Understanding, through the use of text-based programming language, how to develop a range of simple programs, troubleshoot common issues and be able to identify appropriate data types and techniques to use within a given scenario	Combine the understanding of algorithms and knowledge of programming to design a solution to a problem, focused on supporting students

**Subject: Computing      Year 9      Ability Mixed**

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6
Topic	The Ethics of Computing	Algorithms	Python Programming - Sequence	Advanced Spreadsheets	Designing Websites	End of Year Project
Topic overview Pupils will learn...	Explore the legal, environmental and moral issues that now exist in our world as a result of the growing importance of technology in our daily lives and society	Understand the fundamentals of computational thinking (abstraction, decomposition, pattern recognition and algorithms) to solve a range of problems through flow diagrams and text-based programming	Understanding, through the use of text-based programming language, how to develop a range of simple programs, troubleshoot common issues and be able to identify appropriate data types and techniques to use within a given scenario	Explore a range of complex spreadsheets tools and develop the knowledge needed to collect accurate data and automate processes to meet the needs of specific users	Explore the relationships between the component parts of webpages and design a functioning website	Combine a range of IT knowledge to design a digital product that meets a specific brief, focused on predicting and modelling data