



Computing

Key Stage 3 (Years 7 to 9)

Unit	Topic	What students learn	Term
Year 7			
7.1	Introduction to computer science and computational thinking	Computational thinking and logical problem solving, the foundation for all later computing and useful in school and life.	Autumn 1
7.2	Scratch for programming concepts	Applying computational thinking to block-based programming in Scratch, preparing for later study of computer science.	Autumn 2
7.3	Spreadsheet methods	Core spreadsheet skills, an industry-standard tool used throughout further study and working life.	Spring 1
7.4	Introduction to Python programming	Moving from block coding in Scratch to text-based programming in Python, bridging to the Year 8 curriculum.	Spring 2
7.5	Representing data	How computers represent images, text and sound as binary data.	Summer 1
7.6	Assessment tasks	Revisiting each topic from the year to check and secure long-term knowledge.	Summer 2
Year 8			
8.1	Hardware and software	How devices are physically built, how they work, and how to use them more effectively.	Autumn 1
8.2	Python: choose your own adventure	Writing an interactive story in Python, linking narrative writing with programming skills.	Autumn 2
8.3	micro:bit	Becoming 'digital makers': using coding and problem solving to build physical computing projects with the micro:bit.	Spring 1
8.4	Sonic Pi	Creating and manipulating digital sound with code, building on Year 7 programming and leading into Year 9 and Key Stage 4.	Spring 2
8.5	Basic algorithms	Using algorithms to solve problems and share solutions, and how well-known computing problems have been solved.	Summer 1
8.6	Assessment tasks	Revisiting each topic from the year to check and secure long-term knowledge.	Summer 2
Year 9			
9.1	Encryption	Applying problem-solving and programming knowledge from Years 7 and 8 to how information is encrypted.	Autumn 1
9.2	micro:bit 2	Combining physical and digital components and programming a range of sensors, building on Year 8.	Autumn 2
9.3	AI and the impact of technology	What AI is, how it learns from training data and how generative AI works; using AI critically and safely; building a simple chatbot; the ethical and environmental impacts of technology.	Spring 1

Unit	Topic	What students learn	Term
9.4	Spreadsheets	Advanced spreadsheet tools for workplace efficiency, building on Year 7 and preparing for Key Stage 4.	Spring 2
9.5	Animation	How animation, including in film, depends on technology; exploring creative uses of computing.	Summer 1
9.6	Assessment tasks	Revisiting each topic from the year to check and secure long-term knowledge.	Summer 2