



# Long Term Computing Plan

		Year 1	Year 2	Year 3
Autumn	Title	<a href="#">Online Safety</a>	<a href="#">Online Safety</a>	<a href="#">Online Safety</a>
	Unit Overview	Learning how to stay safe online and how to manage feelings and emotions when someone or something has upset us. All 4 lessons.	Learning: how to keep information safe and private online; who we should ask before sharing things online and how to give, or deny permission online. All 4 lessons.	Learning: the difference between fact, opinion and belief; and how to deal with upsetting online content. Knowing how to protect personal information online. All 4 lessons.
	Title	<a href="#">Algorithms</a>	<a href="#">Algorithms</a>	<a href="#">Video Trailers</a>
	Unit Overview	Algorithms, decomposition and debugging are made relatable to familiar contexts, following directions, learning why instructions need to be specific. Lessons 1, 2, 4 and 5 only.	Developing an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops. Lessons 1, 2, 4 and 5 only.	Developing digital video skills to create trailers, with special effects and transitions. Lessons 1-4 only.
Spring	Title	<a href="#">Digital Imagery</a>	<a href="#">What is a computer?</a>	<a href="#">Networks</a>
	Unit Overview	Taking and editing photos, searching for and adding images to a project. Lessons 1-3 only.	Exploring what a computer is by identifying how inputs and outputs work and how computers are used in the wider world to design their own computerised invention. Lessons 1, 2 and 5 only.	Learning what a network and how devices communicate and share information. Lessons 1, 3 and 5 only.
	Title	<a href="#">Improving Mouse Skills</a>	<a href="#">International Space Station</a>	<a href="#">Journey Inside a Computer</a>
	Unit Overview	Learning how to login and navigate around a computer; developing mouse skills; learning how to drag, drop, click and control a cursor to create works of art. Lessons 1-3 only.	Learning how data is collected, used and displayed and the scientific learning of the conditions needed for plants and humans, to survive. Lessons 1, 3 and 5 only.	Assuming the role of computer parts and creating paper versions of computers to consolidate understanding of how a computer works. Lessons 1, 2 and 5 only.
Summer	Title	<a href="#">Bee-Bots</a>	<a href="#">Introduction to Block Coding</a>	<a href="#">Programming Scratch</a>
	Unit Overview	Introducing programming through the use of a Bee-Bot and exploring its functions. Lessons 1, 3, 4 and 5 only.	Exploring what 'blocks' do' by carrying out an informative cycle of predict > test > review. Programming a familiar story and make a musical instrument. Lessons 1, 2 4 and 5 only.	Exploring the programme Scratch, following the predict > test > review cycle. Learning about 'loops' and programming an animation, story and game. Lessons 1, 2, 3 and 5 only.



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		Year 4	Year 5	Year 6
Autumn	Title	<a href="#">Online Safety</a>	<a href="#">Search Engines</a>	<a href="#">Online Safety</a>
	Unit Overview	Searching for information and making a judgement about the probable accuracy; recognising adverts and pop-ups; understanding that technology can be distracting. Lessons 1, 2, 3 and 5 only.	Learning about how page rank works and how to identify inaccurate information. Lessons 1-4 only.	Learning to deal with issues online; about the impact and consequences of sharing information online; how to develop a positive online reputation; combating and dealing with online bullying and protective passwords. Lessons 1, 2, 4 and 6.
	Title	<a href="#">Microsoft Office</a>	<a href="#">Stop Motion Studio</a>	<a href="#">Big Data</a>
	Unit overview	Learning how web pages and sites are created and how to embed media and links. Lessons 1, 3, 4 and 5 only.	Creating animations, storyboard ideas and decomposing a story into small parts before putting together to create the illusion of a moving image. Lessons 1-4 only.	Identifying how barcodes and QR codes work. Learning how infrared waves are used for the transmission of data while recognising the uses of RFID. Lessons 1, 3, 4 and 5.
Spring	Title	<a href="#">Further Coding with Scratch</a>	<a href="#">Online Safety</a>	<a href="#">Bletchley Park and the History of Computers</a>
	Unit Overview	Revisiting the key features and beginning to use 'variables' in code scripts. Lessons 2-4 only.	Learning about app permissions; the positive and negative aspects of online communication; that online information is not always factual; how to deal with online bullying and managing our health and wellbeing. Lessons 1, 4 and 5.	Discovering the history of Bletchley Park, historical figures and the importance of code breaking and passwords. Designing a computer of the future and creating an audio advert for their designs. Lessons 1-3 only.
	Title	<a href="#">Investigating Weather</a>	<a href="#">Mars Rover</a>	<a href="#">Exploring AI</a>
Unit Overview	Researching and storing data on spreadsheets and designing a weather station. Lessons 1, 3 and 4 only.	Exploring how the Mars Rover: moves, follows instructions, collects and sends data; understanding how computers work, what data is and how it. Lessons 1, 2 and 4 only.	Exploring what AI is and how it generates text, images and code. Learning about creating and refining prompts to improve AI responses while also considering the ethical implications of AI and its potential to replace human roles. Lessons 1, 2 and 5 only.	
Summer	Title	<a href="#">Computational Thinking</a>	<a href="#">Programming Music</a>	<a href="#">Intro to Python</a>
	Unit Overview	Solving problems effectively using the four areas of abstraction, algorithm design, decomposition and pattern recognition. Lessons 1-4 only.	Building on programming and music skills to create different sounds, beats, and melodies by using nested loops to create rhythms and making a soundtrack. Lessons 2-5 only.	Using the programming language 'Python' to create designs and art. Learning how to create loops and nested loops to make their code more efficient. Lessons 1-4 only.