

	Computing systems and networks	Programming 1	Skills showcase	Programming 2	Creating media	Data handling	Online safety
EYFS	Computing through continous provision	Using a computer		All about instructions	Exploring hardware	Programming Bee-Bots	Introduction to data
Year 1	<b>Improving mouse skills</b>	<b>Algorithms unplugged</b>	<b>Rocket to the moon</b>	<b>Programming Bee-Bots</b>	<b>Digital literacy</b>	<b>Introduction to data</b>	<b>Online safety</b>
Tim Berners-Lee	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	Algorithms, decomposition and debugging are made relatable to familiar contexts, following directions, learning why instructions need to be specific.	Developing keyboard and mouse skills through designing, building and testing. Creating a digital list of materials, using drawing software and recording data	Introducing programming through the use of a Bee-Bot and exploring its functions.	Taking and editing photos, searching for and adding images to a project.	Learning what data is and the different ways it can be represented. Learning why data is useful and the ways it can be gathered and recorded.	Learning how to stay safe online and how to manage feelings and emotions when someone or something has upset us.
Year 2	<b>What is a computer?</b>	<b>Algorithms and debugging</b>	<b>Word processing</b>	<b>Scratch Jr</b>	<b>Stop motion</b>	<b>International space station</b>	<b>Online safety</b>
Space	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	Developing an understanding of; what algorithms are, how to program them and how they can be developed to be more efficient, introduction of loops	Developing touch typing skills, learning keyboard shortcuts and simple editing tools	Exploring what 'blocks' do' by carrying out an informative cycle of predict > test > review. Programming a familiar story and make a musical instrument.	Learning how to create simple animations from storyboarding creative ideas.	Learning how data is collected, used and displayed and the scientific learning of the conditions needed for plants and humans, to survive.	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.
Year 3	<b>Networks and the internet</b>	<b>Scratch</b>	<b>Emailing</b>	<b>Journey inside a computer</b>	<b>Video trailers</b>	<b>Comparison cards – databases</b>	<b>Online safety</b>
	Learning what a network and how devices communicate and share information.	Exploring the programme Scratch, following the predict > test > review cycle. Learning about 'loops' and programming an	Sending emails with attachments and understanding what cyberbullying is.	Assuming the role of computer parts and creating paper versions of computers to consolidate understanding of	Developing digital video skills to create trailers, with special effects and transitions.	Learning about records, fields and data and sorting and filtering data.	Learning: the difference between fact, opinion and belief; and how to deal with upsetting online content. Knowing how to

		animation, story and game.		how a computer works.			protect personal information online.
Year 4	<b>Collaborative learning</b>	<b>Further coding with Scratch</b>	<b>Website design</b>	<b>HTML</b>	<b>Computational thinking</b>	<b>Investigating weather</b>	<b>Online safety</b>
	Learning how to work collaboratively and exploring a range of collaborative tools. (Microsoft office tools – Word/ Excel)	Revisiting the key features and beginning to use 'variables' in code scripts.	Learning how web pages and sites are created and how to embed media and links.	Learning about the markup language behind a webpage; becoming familiar with HTML tags, changing HTML and CSS code to alter images and 'remix' a live website	Solving problems effectively using the four areas of abstraction, algorithm design, decomposition and pattern recognition.	Researching and storing data on spreadsheets and designing a weather station. (might be better in Spring so you can record rain and temperature)	Searching for information and making a judgement about the probable accuracy; recognising adverts and pop-ups; understanding that technology can be distracting.
Year 5	<b>Search engines</b>	<b>Programming music</b>	<b>Mars Rover 1</b>	<b>Micro:bit</b>	<b>Stop motion animation</b>	<b>Mars Rover 2</b>	<b>Online safety</b>
Space	Learning about how page rank works and how to identify inaccurate information.	Building-on programming and music skills to create different sounds, beats and melodies which are put to the test with a Battle of the Bands performance!  (Sonic Pi NOT Scratch)	Learning about the Mars Rover, exploring how and why it transfers data including instructions, and how messages can be sent using binary code.	Creating algorithms and programs that are used in the real world. Using the 'predict, test and evaluate' cycle to create and debug programs with specific aims.	Creating animations, storyboard ideas and decomposing a story into small parts before putting together to create the illusion of a moving image.	Exploring how the Mars rover: moves, follows instructions, collects and sends data; understanding how computers work, what data is and how it is transferred.	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.
Year 6	<b>Bletchley Park</b>	<b>Intro to Python</b>	<b>Big data 1</b>	<b>History of computers</b>	<b>Big data 2</b>	<b>Inventing a product</b>	<b>Online safety</b>
	Discovering the history of Bletchley and learning about code breaking and password hacking. Demonstrating digital literacy skills	Using the programming language 'Python' to create designs and art. Learning how to create loops and nested loops to	Identifying how barcodes and QR codes work. Learning how infrared waves are used for the transmission of data while	Writing, recording and editing radio plays set during WWII, learning about how computers have evolved.	Further developing understanding of how networks and the Internet are able to share information. Learning how big data can be used to	Designing a product, pupils: evaluate, adapt and debug code to make it suitable for their needs and designing products in CAD and creating a website and video.	Learning to deal with issues online; about the impact and consequences of sharing information online; how to develop a positive online

	<b>by creating presentations.</b>	<b>make their code more efficient.</b>	<b>recognising the uses of RFID.</b>		<b>design smart buildings.</b>		<b>reputation; combating and dealing with online bullying and protective passwords.</b>
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