



<p>EYFS</p>	<p>Computing in the EYFS is centred around play-based, unplugged (no computer) activities that focus on building children’s listening skills, curiosity and creativity and problem solving. Technology in the Early Years means for example:</p> <ul style="list-style-type: none"> •taking a photograph with a camera or tablet •searching for information on the internet •playing games on the interactive whiteboard •exploring an old typewriter or other mechanical toys •using a Beebot •watching a video clip •listening to music •controlling toys with a remote control •using technology though role play eg mobile phone, camera, microwave, ovens, broken devices •using technology equipment to measure units of time eg stop watches. 					
	<p>Autumn A</p>	<p>Autumn B</p>	<p>Spring A</p>	<p>Spring B</p>	<p>Summer A</p>	<p>Summer B</p>
<p>Year 1</p>	<p>Computing systems and networks: Improving mouse skills Introducing children to logging in and using technology for a purpose, including creating art.</p>	<p>Programming 1: Algorithms unplugged Learning how computers handle information by exploring ‘unplugged’ algorithms- completing tasks away.</p>	<p>Skills showcase: Rocket to the moon Appreciating the value of computers, understanding that they helped us get to the moon.</p>	<p>Programming 2: Bee-Bots Using Bee-Bots to navigate an area and constructing simple algorithms, through the story of The Three Little Pigs.</p>	<p>Creating media: Digital imagery Taking and manipulating digital photographs, including adding images found via a search engine.</p>	<p>Data handling: Introduction to data Learning about what data is and how it can be represented and using these skills to show the findings of a mini beast hunt.</p>
<p>Year 2</p>	<p>Computing systems and networks 1: What is a computer? Children explore what a computer is, learning about inputs and outputs, how computers are used in the wider world and designing an invention.</p>	<p>Programming 1: Algorithms and debugging Identifying problems with code using both ‘unplugged’ and ‘plugged’ systems to debug (identify and correct) errors in an algorithm.</p>	<p>Computing systems and networks 2: Word processing Using their developing word processing skills, pupils write simple messages to friends and learn why we must be careful about who we talk to online.</p>	<p>Programming 2: ScratchJr Using ‘ScratchJr’, pupils programme a familiar story and an animation, make their own musical instruments and follow an algorithm.</p>	<p>Creating media: Stop motion Pupils create simple animations, plan a storyboard, then decompose it into small chunks of action to be captured.</p>	<p>Data handling: International Space Station Learn how data is collected and used to keep astronauts safe on the I.S.S.</p>

*Online Safety module to run throughout the year.



	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Year 3	<p>Computing systems and networks 1: Networks and the internet To understand how computers communicate, children learn about networks and the internet, and how they are used to share information.</p>	<p>Programming: Scratch Using Scratch, with its block-based approach to coding, pupils learn to tell stories and create simple games.</p>	<p>Computing systems and networks 2: Emailing Pupils learn how to send emails, including attachments and how to be responsible digital citizens.</p>	<p>Computing systems and networks 3: Journey inside a computer Children learn about the different parts of a computer through role-play and develop their understanding of how they follow instructions.</p>	<p>Creating media: Video trailers Developing their video skills, pupils create a book trailer, storyboarding their trailers before then filming and editing their videos, adding effects such as transitions, music, voice and text.</p>	<p>Data handling: Comparison cards databases Developing their understanding of data and databases, children play with and create their own comparison cards, learning how to interpret information by ordering and filtering</p>
Year 4	<p>Skills showcase: HTML Pupils explore the language behind well-known websites, while developing their understanding of how to change the core characteristics of a website using HTML and CSS</p>	<p>Computing systems and networks: Collaborative learning Learning to work collaboratively in a responsible way using tools, including Microsoft Form and spreadsheets.</p>	<p>Programming 1: Further coding with Scratch The coding program Scratch is explored further by revisiting key features and introducing the children to the concept and execution of using 'variables' in code.</p>	<p>Creating media: Website design Pupils design and create their own websites, considering content and style, as well as understanding the importance of working collaboratively</p>	<p>Programming 2: Computational thinking Through developing their understanding of the four pillars of computational thinking, children learn to identify them in different contexts</p>	<p>Data handling: Investigating weather Children investigate the role of computers in forecasting and recording weather as well as how technology is used to present forecasts.</p>
Year 5	<p>Computing systems and networks: Search engines Enable children to quickly and accurately find information and become independent learners, develop their searching skills and learn how to identify trustworthy sources.</p>	<p>Programming: Music Composing music using code through Sonic Pi or Scratch pupils can compose simple tunes culminating in a 'battle of the bands' using loops of music</p>	<p>Data handling: Mars Rover 1 Pupils explore inputs and outputs as well as binary numbers to understand how the Mars Rover transmits</p>	<p>Programming: Micro:bit Programming a small device called a micro:bit to display animations or messages on its simple LED display using block coding.</p>	<p>Creating media: Stop motion animation Collaboratively creating a stop-motion animation by sharing and then decomposing their ideas. Pupils will develop their ability to edit and improve their creations</p>	<p>Skills showcase: Mars Rover 2 Children learn how the Mars Rover is able to send images all the way back to Earth and experiment with online CAD software to design new tyres for it</p>

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	Autumn A	Autumn B	Spring A	Spring B	Summer A	Summer B
Year 6	<p>Computing systems and networks: Bletchley Park Investigate secret codes and how they are created, exploring ‘brute force’ hacking and learn how to make passwords more secure.</p>	<p>Programming: Intro to Python Introduction to the text-based programming language Python, which is the language behind many apps and programs, such as Dropbox</p>	<p>Data handling 1: Big Data 1 Children learn how data is collected and stored by exploring barcodes, QR codes and RFID chips, and investigate how collecting big data can be used to help people in a variety of different scenarios.</p>	<p>Data handling 2: Big Data 2 Children learn the difference between mobile data and WiFi and how data is transferred and use their understanding of big data to design their own smart school.</p>	<p>Creating media: History of computers Learn about Bletchley Park, including: key historical figures, how the first modern computers were created, how computers have evolved over time.</p>	<p>Skills showcase: Inventing a product Reflecting on and showcasing their computing skills, pupils create an entire project around a specific theme.</p>

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Every Child a
Confident Learner