

Computing Curriculum Overview

Year Group	Autumn		Spring		Summer	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
ONLINE SAFETY TOPICS - All Year Groups	<i>Self-Image and Identity</i>	<i>Online Relationships Online Reputation</i>	<i>Online Bullying and Managing Information Online</i>	<i>Health, Well-being and Lifestyle</i>	<i>Privacy and Security</i>	<i>Copyright and Ownership</i>
R <i>Children will access a range of targeted Computing skills linked to Early Learning Goals</i>	<u>Technology in our world</u> <i>Children aware of technology/devices in their world and beginning to explore using them.</i>	<u>Trackpad and Keyboard skills</u> <i>Children develop ability to use trackpad and keyboard using PurpleMash activities.</i>	<u>Drawing Skills</u> <i>Children to create a picture using 2Paint</i>	<u>Robots</u> <i>To program a Be-Bot to move.</i>	<u>Music Making</u> <i>To explore making music using computers using 2Beat.</i>	<u>Early Coding</u> <i>To program an object to move using 2Go.</i>
	Computing devices are accessed within the continuous provision all year. Children will primarily use MiniMash to access a variety of cross-curricular activities which will include Computing skills such as completing a simple program, interacting with age appropriate computer software, developing trackpad and keyboard skills and using technology for different purposes.					
1	<u>Introduction to Purple Mash</u> <i>Learning to log in safely, access their learning and explore Purple Mash tools.</i> <u>Creative Computing</u> <i>Making digital art in the form of jigsaws.</i>	<u>Data Explorers</u> <i>Sorting and grouping quizzes, understanding what data is.</i>	<u>Creating and following instructions</u> <i>Understanding simple algorithms</i> <u>Technology around us</u> <i>Defining and understanding what technology is.</i>	<u>Animated Stories</u> <i>Creating and combining digital art and text to produce digital books.</i>	<u>Coding</u> <i>Using blocks to code, understanding objects, actions and events, planning and designing a program.</i>	<u>Making Beats</u> <i>Creating sounds, combining instruments and composing digital music.</i>
2	<u>Route Explorers</u> <i>Coding using 2Go, creating commands</i>	<u>Creating Pictures</u> <i>Using a digital art tool to create art in</i>	<u>Spreadsheets</u> <i>Introducing spreadsheets and organising data.</i>	<u>Questioning</u> <i>Investigating data, how it is collected and how it can be presented.</i>	<u>Coding</u> <i>Developing coding skills; understanding algorithms, introducing</i>	<u>Presenting Ideas</u> <i>To organise and present ideas.</i>

	<p><i>and building an algorithm.</i></p> <p><u>The Internet</u> <i>Understanding what the internet is.</i></p>	<p><i>different traditional art styles.</i></p>			<p><i>sequencing, coding interactions, using timers and debugging.</i></p>	<p><u>Making Music</u> <i>Composing digital melodies.</i></p>
3	<p><u>Route Planners</u> <i>Writing commands using rotation, creating algorithms and writing code, planning routes and using repetition.</i></p>	<p><u>Branching Databases</u> <i>Creating binary tree databases.</i></p>	<p><u>Spreadsheets</u> <i>Working with data using spreadsheets.</i></p>	<p><u>Coding</u> <i>Developing coding skills further; using flowcharts, using timers, introducing repetition and testing and debugging.</i></p>	<p><u>Presentations</u> <i>Adding media, customising animations and timings and designing an effective presentation.</i></p>	<p><u>Touching Typing</u> <i>Developing touch typing skills</i></p> <p><u>Additional Unit</u> <u>micro:bit</u> <i>Coding using a micro:bit as an external device.</i></p>
4	<p><u>Unpacking Hardware and Software</u> <i>Understanding computer systems.</i></p> <p><u>Logo</u> <i>Using, writing and refining Logo commands.</i></p>	<p><u>Animation</u> <i>Creating digital animations.</i></p>	<p><u>Sound Stories</u> <i>Adding narrative and sound effects to create audio books.</i></p>	<p><u>Coding</u> <i>Developing coding skills; introducing selection, exploring design properties, introducing loops and coding number variables.</i></p>	<p><u>Composing Beats</u> <i>Composing music digitally using pulse, rhythm and texture, understanding pitch and texture.</i></p>	<p><u>Introduction to AI</u> <i>Understanding what AI is and how it can help, understanding ethics around its use.</i></p> <p><u>Additional Unit</u> <u>micro:bit</u> <i>Coding using a micro:bit as an external device.</i></p>
5	<p><u>Quizzing</u> <i>Making effective quizzes, exploring types of questioning and effective presentation of a quiz.</i></p>	<p><u>Game Creator</u> <i>Designing and making a 3D maze adventure game.</i></p>	<p><u>Spreadsheets</u> <i>Using formulae, exploring measurement conversions, carrying out numerical investigations and creating computational models.</i></p>	<p><u>Coding</u> <i>Coding efficiently by refining coding, simulating a physical system, exploring decomposition and abstraction and using functions and variables.</i></p>	<p><u>Word Processing</u> <i>Using industry standard software to create documents, using images, tables and templates.</i></p>	<p><u>Concept Maps</u> <i>Using and creating concept maps.</i></p> <p><u>Databases</u> <i>Using table based databases for collecting, presenting, researching and analysing data.</i></p>

6	<p><u>Networks</u> <i>Learning what networks do and how they connect devices.</i></p> <p><u>Graphing</u> <i>Understand the benefits of creating common graph types digitally.</i></p>	<p><u>Blogging</u> <i>Understanding how blogs and their features can effectively engage an audience.</i></p> <p><u>Data Detectives</u> <i>To work with large datasets to analyse complex data and answer questions.</i></p>	<p><u>Coding</u> <i>Develop coding skills further; using functions, understanding flowcharts and control simulations, coding for user input.</i></p>	<p><u>Introduction to Python</u> <i>Introducing text-based python coding</i></p> <p><i>Additional Unit</i> <u>micro:bit</u> <i>Coding using a micro:bit as an external device.</i></p>	<p><u>Spreadsheets</u> <i>Using industry standard software to work with spreadsheets; performing calculations, entering and using formulae, presenting data and solving real life problems.</i></p>	<p><u>3D Modelling</u> <i>Exploring computer aided design in 3D.</i></p> <p><i>Additional Unit</i> <u>Binary</u> <i>Understanding binary as a number system and its purpose and application in computing.</i></p>
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