

KS1 Overview COMPUTING 2023-24



YEAR 1						
TERM	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics YEAR 1	Street Detectives	Toys through Time	Amazing Animals	Explorers of the World	Growing and Plants	Travel and Transport
Online safety - Project Evolve	*Online reputation *Copyright & Ownership	*Online Bullying	*Privacy and Security	*Managing online information	*Health & Wellbeing *Self-image & Identity	*Online relationships
YEAR 1 CURRICULUM OBJECTIVES	*Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. *Use technology purposefully to create, organise, store, manipulate and retrieve digital content	*Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	*Use logical reasoning to predict the behaviour of simple programs. *Create and debug simple programs *Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. *Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	*Use technology purposefully to create, organise, store, manipulate and retrieve digital content	*Use technology purposefully to create, organise, store, manipulate and retrieve digital content	*Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. *Recognise common uses of information technology beyond school
STRANDS	Digital Literacy Information Technology	Computer Science	Computer Science Digital Literacy	Information Technology	Information Technology	Digital Literacy

Significant Event / Festival	Internet safety - whole school		Internet Safety Week - Whole School			Internet safety - whole school
Task - Purple Mash units/internet safety whole school/physical resources	<p><u>Unit 1.1</u> Online Safety (4 lessons) + Whole school online safety</p> <p><u>Unit 1.2</u> Grouping and Sorting (2 lessons)</p>	<p><u>Unit 1.4</u> Lego Builders (3 lessons)</p> <p>Beebots / programmable mice (2 lessons)</p>	<p><u>Unit 1.7</u> Coding (6 lessons)</p> <p>Whole school online safety activities.</p>	<p><u>Unit 1.3</u> Pictograms (3 lessons)</p> <p><u>Unit 1.8</u> Spreadsheets (3 lessons)</p>	<p><u>Unit 1.6</u> Animated Story Books (5 lessons)</p>	<p><u>Unit 1.9</u> Technology outside of school (2 lessons)</p> <p>Whole school online safety activities.</p> <p><u>Recap on previously taught computing units</u></p> <p>*Pictogram - linking to 'pets' (Science) *Coding - recap misconceptions</p>
Key learning outcomes	<p>To log in safely.</p> <p>To learn how to find saved work in the Online Work area and find teacher comments.</p> <p>To learn how to search Purple Mash to find resources.</p> <p>To become familiar with the icons and types of resources available in the Topics section.</p> <p>To start to add pictures and text to work.</p> <p>To explore the Tools and Games section of Purple Mash.</p> <p>To learn how to open, save and print.</p> <p>To understand the importance of logging out.</p>	<p>To compare the effects of adhering strictly to instructions to completing tasks without complete instructions.</p> <p>To follow and create simple instructions on the computer.</p> <p>To consider how the order of instructions affects the result.</p>	<p>To understand what instructions are and predict what might happen when they are followed.</p> <p>To use code to make a computer program.</p> <p>To understand what object and actions are.</p> <p>To understand what an event is.</p> <p>To use an event to control an object.</p> <p>To begin to understand how code executes when a program is run.</p> <p>To understand what backgrounds and objects are.</p> <p>To plan and make a computer program.</p>	<p>To understand that data can be represented in picture format.</p> <p>To contribute to a class pictogram.</p> <p>To use a pictogram to record the results of an experiment.</p>	<p>To introduce e-books and the 2Create a Story tool.</p> <p>To add animation to a story.</p> <p>To add sound to a story, including voice recording and music the children have composed.</p> <p>To work on a more complex story, including adding backgrounds and copying and pasting pages.</p> <p>To share e-books on a class display board.</p>	<p>To walk around the local community and find examples of where technology is used.</p> <p>To record examples of technology outside school.</p>

	<p>To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash.</p>			<p>To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash. To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count.</p>		<p>To use an event to control an object. To begin to understand how code executes when a program is run.</p>
<p>Key Vocabulary</p>	<p>Log in/out Username Password My Work Avatar Notification Tools Save Sort Criteria</p>	<p>Instruction Algorithm Computer Program Debug</p>	<p>Action Background Button Character Code block Code design Coder Coding Collision deletion Command Input Design Mode Object Program Scale Properties Stop command When clicked Sound When key</p>	<p>Pictogram Data Collate Arrow keys Backspace key Delete key Cursor Columns / Rows Cells Count tool Clip art Lock tool Speak tool Move cell tool Spreadsheet Image toolbox</p>	<p>Animation E-Book Font File Sound effect Display Board</p>	<p>Technology Instruction Algorithm Program Debug</p>

YEAR 2						
TERM	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics YEAR 2	Wriggle and crawl	Coastline	Explorers	Land Ahoy	Our Planet	Towers, Turrets and Tunnels
Online safety - Project Evolve	*Online reputation *Copyright & Ownership	*Online Bullying	*Privacy and Security	*Managing online information	*Health & Wellbeing *Self-image & Identity	*Online relationships
YEAR 2 CURRICULUM OBJECTIVES	*Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. *Use technology purposefully to create, organise, store, manipulate and retrieve digital content * Recognise common uses of information technology beyond school	*Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. *Create and debug simple programs *Use logical reasoning to predict the behaviour of simple programs.	* Use technology purposefully to create, organise, store, manipulate and retrieve digital content *Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.		* Use technology purposefully to create, organise, store, manipulate and retrieve digital content	* Use technology purposefully to create, organise, store, manipulate and retrieve digital content *Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
Significant Event / Festival	Internet safety - whole school		Internet Safety Week - Whole school			Internet safety - whole school
STRAND	Digital Literacy Information Technology	Computer Science	Information Technology Digital Literacy		Information Technology	Information Technology Digital Literacy
Task - Purple Mash units/internet safety whole school / physical resources	<u>Unit 2.2</u> Online Safety (3 weeks) + Whole school online safety <u>Unit 2.5</u> Effective Searching (3 weeks)	<u>Unit 2.1</u> Coding (5 Weeks) Beebots (2 weeks)	<u>Unit 2.6</u> Creating Pictures (opposite swimming) (5 Weeks) Whole school online safety week		<u>Unit 2.4</u> Questioning (5 weeks)	<u>Unit 2.7</u> Making Music (3 weeks) + RAMBOTS (DCC)? Whole school online safety week

<p>Key learning outcomes</p>	<p>To know how to refine searches using the Search tool. To use digital technology to share work on Purple Mash to communicate and connect with others locally. To have some knowledge and understanding about sharing more globally on the Internet. To introduce Email as a communication tool using 2Respond simulations. To understand how we should talk to others in an online situation. To open and send simple online communications in the form of email. To understand that information put online leaves a digital footprint or trail. To identify the steps that can be taken to keep personal data and hardware secure.</p>	<p>To understand what an algorithm is. To create a computer program using an algorithm. To create a program using a given design. To understand the collision detection event. To understand that algorithms follow a sequence. To design an algorithm that follows a timed sequence. To understand that different objects have different properties. To understand what different events do in code. To understand the function of buttons in a program. To understand and debug simple programs</p>	<p>To learn the functions of the 2Paint a Picture tool. To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). To recreate Pointillist art and look at the work of pointillist artists such as Seurat. To learn about the work of Piet Mondrian and recreate the style using the lines template. To learn about the work of William Morris and recreate the style using the patterns template. To explore surrealism and eCollage</p>	<p>To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use 2Question (a binary tree database) to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information.</p>	<p>To make music digitally using 2Sequence. To explore, edit and combine sounds using 2Sequence. To edit and refine composed music. To think about how music can be used to express feelings and create tunes which depict feelings. To upload a sound from a bank of sounds into the Sounds section. To record and upload environmental sounds into Purple Mash. To use these sounds to create tunes in 2Sequence.</p>
	<p>To understand the terminology associated with searching. To gain a better understanding of searching on the Internet.</p>				
<p>Key Vocabulary</p>	<p>Search Display Board Internet Sharing</p>	<p>Action Algorithm Bug/ Debug/debugging Character</p>	<p>Palette Share Template</p>	<p>Pictogram Question Data Collate</p>	<p>Digitally Sound effects Volume Soundtrack</p>

	Email Attachment Digital Footprint Internet Search Search engine	Code Block Code design Command Design mode Input Object Properties Repeat Scale Timer When clicked When key		Binary tree Avatar Database	BPM (Beats per minute) Instrument Music Composition
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