

Computing Curriculum Overview

	Year R	Year 1	Year 2	Year 3
Coding – Understand what algorithms are; how they are implemented as programs on digital devices.	N/A	<p>Pupils will begin to know how to create and debug a simple algorithm. (T3)</p> <p>Pupils will be able to use the additional direction keys in 2Go as part of their algorithm. They will begin to understand how to change and extend the algorithm list. (T3)</p>	Know what an algorithm is and what the term debugging means. (T6)	
Coding – Understanding that programs are executed by following precise and unambiguous instructions.	<p>Programme simple toys (beebot toy) – forwards backwards, clear, go (T4)</p> <p>Make a programmable toy turn (T4)</p>	How to use the direction keys in 2Go to move forwards, backwards, left and right. (T3)	Know that an algorithm is a series of steps for solving problems and a code is a series of steps that machines can execute by following precise and unambiguous instructions (creating a programme). (T6)	Design, write and debug programs that control or simulate virtual events
Coding – Create and debug simple programs	Move the programmable toy to plan and create a short journey (T4)	<p>How to undo their last move and move their character back to the starting point. (T3)</p> <p>Pupils will begin to know how to create and debug a simple algorithm. (T3)</p>	How to use directional language to create a basic algorithm and debug if needed, to complete task on the 'Lightbot' app. (T6)	
Coding – Use logical reasoning to predict the behaviour of simple programs.	Move the programmable toy to plan and create a short journey (T4)	Pupils can use diagonal direction keys in 2Go to move the characters in the right direction. (T3)	<p>Using logical reasoning to predict the behaviour of simple programs. (T6)</p> <p>Know how to use code to control the nature of events: repeat, loops, single events and add and delete features. (T6)</p>	Use logical reasoning to explain how some simple algorithms work

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<p>Online Safety – Use technology safely and respectfully, keeping personal information private.</p>	<p>Operate an age appropriate program (purple mash) – know how to open this and open a game/application on this. (T1, 2)</p> <p>Know the importance of logging on with a class password and username. (T6)</p>	<p>They will be able to explain why their password is private to them and is to not be shared with anyone else. (T1)</p> <p>How to use technology safely and respectfully in the context of searching for appropriate images online using safe search engines. (T1)</p> <p>Understand how to keep personal information safe online, and can recognise what personal information can affect their safety.(T1)</p> <p>Pupils will be able to send a new email remembering how to be safe online. (T2)</p> <p>Open an email and respond to it safely using ‘2email’ program on Purple Mash, remembering how to be safe online. (T2)</p>	<p>What a digital footprint is, the irreversible nature of sharing information online and how their personal information could be used. (T1)</p> <p>How to identify age appropriate website. (T1)</p> <p>How to identify kind or unkind behaviour online. (T1)</p> <p>How to log on to the laptop. (T1)</p> <p>Understand the terminology associated with the Internet and searching and how to use technology safely and respectfully, keeping personal information private. (T3)</p> <p>Demonstrate how to safely open and close applications and log on and off (from websites) (T3)</p>	<p>Use technology safely and respectfully, keeping personal information private</p> <p>Use simple search technologies</p> <p>Use simple search technologies and recognise that some sources are more reliable than others</p>
<p>Online safely – Identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</p>	<p>Not giving out personal information, what to do if you see something that you do not like/feel comfortable. (T1,2)</p>	<p>Know who to tell if someone asks for their personal information. (T1)</p>	<p>What to do if a website makes them feel uncomfortable in any way. (T1)</p> <p>What to do if a website makes them feel uncomfortable in any way. (T1)</p> <p>Understand how and why blog posts are approved by the teacher. (T4)</p>	<p>Use technology safely and recognise acceptable and unacceptable behaviour</p>

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<p>Using Technology – Multimedia text, sound and images.</p> <p>Handling data</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>Understand how to safely use basic computing equipment - laptops and ipads, how to handle, push buttons, be gentle etc (T1, 2)</p> <p>Pupils will know how to operate simple equipment – begin to operate a laptop using the mouse/touch screen. (T1, 2)</p> <p>Pupils will know that information can be retrieved from computers and can help with learning. (T1, 2)</p> <p>Children will operate an age appropriate program (purple mash) – know how to open this and open a game/application on this. (T, 2)</p> <p>Navigate a simple age appropriate programme on a computer. (T3)</p> <p>Pupils will select and use technology for a purpose – children to be given a task and think about programs they could use. (T6)</p> <p>Exploration and honing mouse skills using Purple Mash (T6)</p>	<p>Log onto the laptops and to their Purple Mash accounts. (T1)</p> <p>Save work into their ‘My Work’ folder in Purple Mash and understand that this is a private saving space just for their work. (T1)</p> <p>Find and open saved work in an online work area on Purple Mash. (T1, 2)</p> <p>Explore the 2animate program on Purple Mash using mouse skills and developing paint skills. (T2)</p> <p>Send a new email using ‘2email’ program on Purple Mash using their planned design from previous lessons, remembering how to be safe online. (T2)</p> <p>Open an email and respond to it safely using ‘2email’ program on Purple Mash, remembering how to be safe online. (T2)</p> <p>Introduced to the basic typing terminology and understand the correct way to sit at the keyboard. (T4)</p> <p>Introduced to the basic keyboard functions; Space bar, Enter key, delete/backspace, directional keys, and shift key. (T4)</p> <p>Know what a spreadsheet is and recognise what a spreadsheet looks like. (T5)</p>	<p>. How to log on to the laptops and the basic functions of the keyboard. (T1)</p> <p>Know the location of the letter keys on a key board, (T1)</p> <p>Basic understanding of software in order to create and save a storybook. (T2)</p> <p>How to retrieve content and add features. including recording own sounds. (T2)</p> <p>Understand what a pictogram is and will be able to input data into a pictogram using the program 2count. (T5)</p> <p>Plan a binary tree in order to sort animals using closed questions based on their characteristics. (T5)</p> <p>Construct a binary tree using the program 2question. Adding branches of the tree, inputting questions and using mouse control to illustrate. (T5)</p>	<p>Recognise familiar forms of input and output devices and how they are used.</p> <p>Make efficient use of familiar forms of input and output devices</p> <p>Understand that computer networks enable the sharing of data and information.</p> <p>Understand that the internet is a large network of computers and that information can be shared between computers</p> <p>With support select and use a variety of software to accomplish goals</p>
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Be able to navigate around a spreadsheet and begin to enter data using '2calculate' on Purple Mash. (T5)

Add clipart images to a spreadsheet. (T5)

Be able to use the 'move cell' and 'lock' tools, using '2calculate' on Purple Mash. (T5)

Use the 'speak' and 'count' tools in 2Calculate to count items. (T5)

How to make choices when taking a photograph. (T6)

How to delete an unwanted photo from a device. (T6)

Know what makes a good photograph. (T6)

Decide how photographs can be improved. (T6)

Hhow to take a good photo by planning and editing their work. (T6)

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<p>Technology in our lives – Recognise common uses of information technology beyond school.</p>	<p>Pupils will know that information can be retrieved from computers and can help with learning. (T1)</p> <p>Know that technology can be used for different purposes. (T3)</p> <p>Technology can be used to help our knowledge of different subjects (T3)</p> <p>Understand how technology is used in different places/purposes – within school and at home. (T5)</p> <p>Know that a range of technology is used in different places. (T5)</p> <p>Understand technology is found everywhere and can be used for a variety of things. (T5)</p>	<p>understand what an animation is and that it is a form of entertainment created using technology. (T2)</p> <p>Understand what an email is and how it can be used as a form of communication. (T2)</p> <p>Understand what is meant by ‘technology’. (T4)</p> <p>Considered and observed types of technology used around the academy and start to consider how technology is used beyond the academy and in their wider world. (T4)</p> <p>Consider how technology is used in our day to day lives and understand how technology has changed. (T4)</p> <p>Know that a digital device can take a photograph. (T6)</p> <p>Know what makes a good photograph. (T6)</p> <p>Decide how photographs can be improved. (T6)</p> <p>How to take a good photo by planning and editing their work. (T6)</p>	<p>Identify the purpose of writing a blog and identify the features of successful blog writing. (T3)</p> <p>Understand how to write a blog and consider the effect upon the audience by including different types of media, e.g. Pictures, drawings, video clips. (T3)</p> <p>Understanding of the importance of regularly updating the content of a blog. (T3)</p>	
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Key vocabulary		<p>Online safety: Log in, log out, username, logout Avatar, tools save, open Information, safety, personal, key, question, safe, share, stranger, danger.</p> <p>Coding - 2Go: up, down, left, right, diagonal, Rewind, Forward/ Backwards, Debug, Instruction, Algorithm, Direction, Challenge, Arrow, Undo</p> <p>spreadsheets: spreadsheet, cell, column, row, delete, move, speak, clipart, list, calculation, lock, count</p> <p>Photography Device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, lighting, dark, bright, detail, delete, edit</p>		
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