

Progression of Skills		Subject: Computing					
	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Coding and computational thinking	<p>I can explain what the different buttons do on the Bee Bot.</p> <p>I can give a Bee Bot commands to make it move.</p> <p>I can follow a simple sequence of instructions (algorithm)</p> <p>With the help of an adult, I can debug instructions when they go wrong.</p>	<p>I can explain what an algorithm is.</p> <p>I can explain why an algorithm needs to be accurate (right).</p> <p>I can work out what is wrong in a simple algorithm (steps out of order)</p> <p>I can write a simple algorithm for a recipe.</p> <p>I can use buttons to move my character.</p> <p>I can plan my moves several steps at a time towards the goal rather than one step at a time.</p> <p>I can make logical attempts to fix the code.</p> <p>I can design a program that controls the look and actions of objects.</p> <p>I can read the code one line at a time.</p>	<p>I can explain that an algorithm is a set of instructions to complete a task</p> <p>I know I need to carefully plan my algorithm so it will work when I make it into code.</p> <p>I can design a simple program using 2Code that achieves a purpose.</p> <p>I can find and correct some errors in my program.</p> <p>I can say what will happen in a program.</p> <p>I can spot something in a program that has an action or effect (does something).</p>	<p>I can design and code a program that follows a simple sequence.</p> <p>I can experiment with the use of timers to achieve delay effects in my program.</p> <p>I understand the difference between timer-after and timer-every commands</p> <p>I can explain the choice of commands I have included in my program and what they achieve</p> <p>I can use the repeat command to program a turtle to draw a square.</p> <p>I am beginning to understand how code is structured and can apply this knowledge when debugging.</p> <p>I can integrate multimedia components such as sounds, animation and images into my coding.</p>	<p>I can turn a real-life situation to solve into an algorithm, using a design that shows how I can accomplish this in code.</p> <p>I can use repetition in my code. For example, using a loop that continues until a condition is met such as the correct answer being entered.</p> <p>I can use timers within my program designs more accurately to create repetition effects. For example, I can create a counting machine.</p> <p>I can use selection (decision) in my programming. For example, using an 'if statement' for a question being asked and the program takes one of two paths.</p> <p>I can use variables within my program and know how to change the value of variables.</p> <p>I can use the user inputs and output features within my program, such as 'Print to screen'</p> <p>I can identify errors in my code by using different methods, such as stepping through lines of code and fixing them.</p> <p>I can read programs that contain several steps and predict the outcomes with increasing accuracy.</p>	<p>I can make more complex real-life problems into algorithms for a program.</p> <p>I can test and debug my programs as I work</p> <p>I can convert (translate) algorithms that contain sequence, selection and repetition into code that works.</p> <p>I can use sequence, selection, repetition, and some other coding structures in my code</p> <p>I can organise my code carefully for example, naming variables and using tabs. I know this will help me debug more efficiently</p> <p>I can use logical methods to identify the cause of any bug with support to identify the specific line of code.</p>	<p>I can turn a complex programming task into an algorithm.</p> <p>I can identify the important aspects of a programming task (abstraction).</p> <p>I can decompose important aspects of a programming task in a logical way, identifying appropriate coding structures that would work</p> <p>I can test and debug my program as I work on it and use logical methods to identify a cause of a bug.</p> <p>I can identify a specific line of code that is causing a problem in my program and attempt a fix</p> <p>I can translate algorithms that include sequence, selection and repetition into code and nest these structures within each other.</p> <p>I can use inputs and outputs within my coded programs such as sound, movement and buttons and represent the state of an object</p> <p>I can interpret (understand) a program in parts and can make logical attempts to put the separate parts together in an algorithm to explain the program.</p> <p>I can turn a simple story with 2 or 3 levels of decision making into a logical design using 2Connect.</p> <p>I can apply my knowledge of coding and the fundamental order of instructions through creating my own story-based adventure game.</p>

Communication and networks					<p>I understand that network and communication components can be found in many different devices which allow them to join the internet.</p> <p>I recognise the main component parts of hardware which allow computers to join and form a network.</p>	<p>I know the importance of computer networks and how they help solve problems and enhance communication.</p> <p>I recognise the main dangers that can be perpetuated via computer networks.</p>	<p>I can explain the difference between the internet and the World Wide Web.</p> <p>I can explain what a WAN and LAN is and describe the process of how access to the internet in school is possible.</p>
Spreadsheets		<p>I can use 2Calculate to create a simple spreadsheet.</p> <p>I can enter data into cells.</p> <p>I can use the image tool box to add clipart.</p>	<p>I can open, edit and save sheets.</p> <p>I can create a spreadsheet which includes a graph based on simple data collected.</p> <p>I can produce a spreadsheet which can help me to solve simple mathematical puzzles</p> <p>I can record collected data into a table and use this data to create a block graph manually.</p>	<p>I can create a table of data on a spreadsheet and can use this to automatically create charts/graphs from data</p> <p>I can select the most suitable type of chart to use for my data, edit headers and apply axis labels.</p> <p>I can collect and enter data within 2Calcualte.</p> <p>I can use the graphing tool to create suitable graphical representations of the data I have within a table.</p>	<p>I can use 2Calculate to design a graph to solve a mathematical problem.</p> <p>I can use spreadsheets to solve and check mathematical problems and concepts.</p> <p>I can add a formula to a cell to automatically make a calculation in that cell using the 'formula Wizard'.</p> <p>I can use spreadsheets to collate data and extract information from it to answer questions</p>	<p>I can create a formula using 2Calculate that converts metres into centimetres</p> <p>I can convert data into a graphical format</p> <p>I can use 2Calculate to produce functional spreadsheets with a clear purpose.</p>	<p>I can create a spreadsheet and collect data using 2Calculate that answers a mathematical problem relating to probability.</p> <p>I can use a spreadsheet to model a real-life situation</p> <p>I can create spreadsheets which contain visual elements such as suitable graphs which represent their data.</p> <p>I can use advanced features such as the 'formula wizard' for efficiency and know the best layouts to use to support easier interrogations of data.</p> <p>I can understand and use the new vocabulary relating to spreadsheets</p> <p>With direction, I can use flash fill, convert text to tables, split cells, and sort for organising and presenting my data in a spreadsheet.</p>

Internet and Email	<p>I can talk about what I use the internet for.</p> <p>I always ask a grown up before I go on the internet.</p> <p>I can check with a trusted adult before I try a new website.</p> <p>I can talk about and explain the SMART rules with my teacher</p> <p>I know my username and password for my Purple Mash Account.</p> <p>I can use my Magic Square to log in to a Chromebook in school.</p>	<p>I understand what is meant by technology and can identify examples in and out of school.</p> <p>I understand the importance of online safety by keeping my Purple Mash username and password private.</p> <p>I can explain what the meaning of private information and show this in computing lessons.</p> <p>I can save my work, using a name that I will remember, to my personal work folder.</p> <p>I can communicate and behave appropriately when I am online.</p>	<p>I understand how to use the Purple Mash search bar and know the implications of inappropriate searches.</p> <p>I can see where technology is used at school such as in the office or canteen.</p> <p>I can explain what a digital footprint is.</p> <p>I can give reasons for keeping my password safe.</p> <p>I can express the good and bad sides of digital technology.</p> <p>I can share work and communicate electronically – for example using 2Email or the display boards.</p> <p>I can find information I need using a search engine.</p> <p>I can successfully find the solutions for answers to a problem or quiz using a search engine</p> <p>I can report unkind behaviour and things that upset me online, to a trusted adult.</p> <p>I understand the terminology, layout and features of a search engine</p>	<p>I understand the importance of a secure password and not sharing this with anyone else.</p> <p>I understand the negative implications of failure to keep passwords safe and secure and can suggest examples of good and poor passwords.</p> <p>I can assess the accuracy of the information on a website and make decisions on whether it is a trustworthy source of information.</p> <p>I have gained an understanding that it is not acceptable to use the work of others or post images of others without consent.</p> <p>I can express the need to tell a trusted adult if I am upset by anything online.</p> <p>I can list a range of ways the internet can be used to provide different methods of communication.</p> <p>I can exchange email communications using 2Email.</p> <p>I can open and respond to an email, altering the size of the font, as well as the formatting of the text</p> <p>I can select a person from my address book and compose a suitable email to send them.</p> <p>I can add attachments to an email I have written and use the CC functionality correctly.</p>	<p>I can help others to understand the importance of online safety and apply my knowledge through the creation of online safety resources.</p> <p>I can give some examples of things to look out for in an email to ensure that it from a valid source and is not a phishing scam email.</p> <p>I can explain what can be learnt by looking at the padlock details for a website.</p> <p>I can reflect upon positive and negative aspects of a digital footprint and can give examples of the care I would take when sharing online in relation to my own and others' digital footprint.</p> <p>I can explain what malware is and what it does.</p> <p>I can give reasons for limiting screen time.</p> <p>I can explain what plagiarism is</p> <p>I can explain what I need to do to report cyberbullying or inappropriate content on screen.</p>	<p>I can explain what personal information is and know strategies for keeping this safe.</p> <p>I can search precisely when using a search engine. For example, I know I can add additional words or removes words to help find better results.</p> <p>I can explain in detail how accurate, safe and reliable the content is on a webpage.</p> <p>I have a secure knowledge of online safety rules taught at school.</p> <p>I can demonstrate the safe and respectful use of different online technologies and online services</p> <p>I always relate appropriate online behaviour to my right to have personal privacy.</p> <p>I know how to not let my mental wellbeing or others be affected by use of online technologies and services.</p>	<p>I can demonstrate safe and respectful use of a range of different technologies and online services.</p> <p>I can identify more discrete inappropriate behaviours online. For example, someone who may be trying to groom me or someone else.</p> <p>I can use critical thinking to help me stay safe online.</p> <p>I know the value of protecting my privacy and others online</p>
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Art and Design	<p>I can use a variety of paint projects to learn about different cultural celebrations and clothing.</p> <p>I can use paint projects for numbers 1-10 to practise number formation</p> <p>I can use 2Paint on an iPad to help me with my fine motor skills and movements.</p>		<p>I am able to use a range of effects and functions, such as e-collage, in 2Paint a Picture</p> <p>I can use 2Paint a Picture to create an image replicating an established style.</p>		<p>I can create an animation using 2animate.</p> <p>I can use the onion skin animation tool within 2Animate to show movement across the screen.</p> <p>I can select backgrounds and sounds to make their animation more immersive.</p>	<p>I can plan a computer game (2DIY3D) using a template.</p> <p>I can combine text, sound, and graphic components within a 2DIY3D game</p> <p>I can design a 3D model to fit certain criteria using a template from 2Publish.</p> <p>I can use the ready-made templates within 2Design and Make to design the recognisable form of a building.</p>	
Music	<p>I can experiment with beats and rhythms on 2Beat.</p> <p>I can experiment with different instrument sounds and create my own simple tune on 2Explore.</p>		<p>I can use the sounds within 2Sequence to create a composition</p> <p>I can explore different sounds to use within my tune and functions such as tempo.</p> <p>I can edit digital data such as data in music composition software like 2Sequence.</p>		<p>I can create a simple rhythm, experimenting with BPM in 'Busy Beats'</p> <p>I can use the tools within Busy Beats to create a melodic phrase experimenting with pitch</p>		

Databases and graphing		<p>I can sort items into three groups using given criteria.</p> <p>I can create a pictogram on 2Chart.</p> <p>I can create, store, retrieve and share my pictogram.</p>	<p>I can create pictograms to represent data</p> <p>I can use a binary tree to sort information and can manipulate their data, answering questions relating to this</p> <p>I can design a binary tree using 2Question to sort pictures</p>	<p>I can create a branching database that accomplishes a given goal.</p> <p>I can create a branching database and can debug it to improve the quality of their digital content creation.</p> <p>I can create a branching database which includes suitable text, titles and gathering of appropriate images from online and import them.</p> <p>I use 2Graph to enter data on a given number of fields and then present it as a graph</p> <p>I can select the most suitable graph format to present my data</p> <p>I can present my graph by sharing it on a class blog</p> <p>I can present information in a range of graphical formats which includes attention to detail regarding appropriate labelling and block sizing.</p>		<p>I can contribute to the design of a collaborative and individual database.</p> <p>I can design and enter information accurately into my own database and create questions about it for my classmates to answer.</p>	
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Writing and Presenting	<p>I can listen to a story that my teacher has created on 2Create a Story.</p> <p>I can use digital microscope to look at minibeasts and plants.</p> <p>I can practice fine motor skills and movements through playing games which include dragging and dropping.</p> <p>I can play games on the IWB.</p> <p>I can take a photo with a camera or .tablet/Ipad.</p>	<p>I can use 'My Story' to create an interactive story.</p> <p>I can change the pictures, add animations and sound to my story.</p> <p>I can save my work.</p> <p>I can find my work in my folder and open it.</p>	<p>I can include photos, text and sound in my creations.</p> <p>I understand how digital content can be represented in different ways.</p>	<p>I understand how to touch type using the home, bottom and top row keys using both hands.</p> <p>I can apply my touch-typing skills in other lessons.</p> <p>I can add text, pictures and shapes to a slide and format them with tools such as shadows and borders</p> <p>I can insert slides into a presentation.</p> <p>I can use transition effects between slides and animations of the objects in slides.</p> <p>I can explore the use of timings to a presentation.</p> <p>Using 2Simulate, I can analyse and evaluate information relating to the situations in the activities</p> <p>I understand the importance of simulations to replicate events that could occur in real and hypothetical situations</p>	<p>I can create content linked to a 2Simulate scenario for a select audience</p> <p>Using a variety of software, I can make informed choices about the best way to present information</p> <p>I can alter font types, styles and sizes to suit an intended audience for digital content using 2Publish and incorporate, with ease, images from clipart banks and internet sources.</p> <p>I can share digital content using a variety of applications such as: 2Blog, 2Email and Display Boards.</p>	<p>I can use the most appropriate form of online communication according to the digital content. For example, use 2Email, 2Blog and Display Boards.</p> <p>I can use 2Connect to design and create concept maps that collect and present a range of linked ideas</p> <p>I can work successfully with others to create an online collaborative concept map using 2connect</p> <p>During presentations, I can give constructive feedback sensitively and respond well to others' feedback.</p> <p>I can create a word processing document.</p> <p>I can alter the look of the text and navigate around the document.</p> <p>I can consider the overall structure of the document using paragraph formatting, page breaks, headers and footers to increase the usefulness and visual appeal of a document</p> <p>I can add images, text boxes and shapes to a word document. I can resize and reposition objects using wrapping options.</p> <p>I understand that I should not simply copy images from the internet and routinely consider copyright and attributions when I use images created by others.</p>	<p>I can identify the key features of a blog and share these using 2Write.</p> <p>I can create a blog for a specific purpose and can post comments on an existing class blog</p> <p>I understand the features of a blog and the differences between a blog page and a blog post</p> <p>I can work collaboratively and individually to plan, design, and create a blog.</p> <p>I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements.</p> <p>I can consider the intended audience carefully when I design and make digital content.</p> <p>I can plan, design and create various quizzes using a variety of software- 2DIY, 2Quiz and 2Investigate.</p> <p>With ease, I can combine text with images and audio to enhance my quizzes.</p>
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