



## Progression grid for Computing

Computing – Learning Progression							
Key Area	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
		<p>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.</p>		<p>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks, including the internet; how they can provide multiple services, such as the World, Wide Web, and the opportunities they offer for communication and collaboration.</p>			
Computer Science	<p>To begin to know how to programme simple toys (e.g Bluebots) in order to make them work</p>	<p><b>Coding - Espresso</b> Know that programs execute by following clear instructions. Understand that programs respond to inputs to do different things. Know how to combine start and input events to create more advanced apps and programs using precise instructions.</p> <p><b>Lego Builders (1.4)</b> To compare effects of adhering to instructions to completing tasks without complete instructions. To follow and create simple instructions on the computer. To consider how the order of instructions affects the results.</p>	<p><b>Coding - Espresso</b> To know that programs respond to different sorts of inputs, and that the keyboard can be used to control objects on screen, not just by clicking them directly. To know that one object can be used to control another object, e.g. writing code so clicking a button gives an instruction to make a lorry move.</p>	<p><b>Coding - Espresso</b> To know how to make things happen in a sequence, creating simple animations and simulations. To know how to code with 'if statements', which select different pieces of code to execute depending on what happens to other objects.</p> <p><b>Email (3.5)</b> To think about different methods of communication. To open and respond to an email using an address book. To know how to use email safely. To add an attachment to an email. To explore a simulated email scenario.</p>	<p><b>Coding - Espresso</b> To know how computers use variables to count things and keep track of what is going on, then create simple games which use a score variable. To know how computers use repetition and loops to do things over and over again (and again!).</p> <p><b>Hardware Investigation (4.8)</b> To understand the different parts that make up a computer. To recall the different parts that make up a computer.</p>	<p><b>Coding - Espresso</b> To know how computers use numbers to represent things such as how fast things are moving, and where they are. To know how computers can generate random numbers and how these can be used in simulations.</p> <p><b>Game Creator (5.5)</b> To plan a game. To design and create the game environment. To design and create the game quest. To finish and share the game. To self and peer evaluate.</p>	<p><b>Coding - Espresso</b> Know to use variables in more complex ways, and to manipulate inputs to create useful outputs Know more about how computers use property values and parameters to store information about objects.</p> <p><b>Networks (6.6)</b> To know about what the internet consists of. To find out what a LAN and WAN are. To find out how the internet is accessed in school. To research and find out about the age of the internet. To think about what the future might hold.</p>

	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
		Use technology purposefully to create, organise, store, manipulate and retrieve digital content.		Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.			
				Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.			
Information Technology	To begin to access and use online resources such as Purple Mash in order to perform a range of tasks (drawing, sorting objects, moving objects)	<p><b>Spreadsheets (1.8)</b> To know what a spreadsheet program looks like. To enter data into spreadsheet cells. To use image tools to add clipart. To use control tools: lock, move cell, speak and count.</p> <p><b>Animated Story Books (1.6)</b> To introduce e-books. To add animation to a story, including sounds and music the children have composed.</p>	<p><b>Spreadsheets (2.3)</b> To use image, lock, move, cell, speak and count tools to make a counting machine. To learn how to copy and paste. To use the totalling tools. To use a spreadsheet for money calculations. To use the equals tool to check calculations. To use 2Calculate to collect data and produce a graph.</p> <p><b>Creating Pictures (2.6)</b> To know the function of a picture tool. To learn about and recreate the Impressionist style of art by (Monet, Degas, Renoir). To recreate Pointillist artist such as Seurat. To learn about the work of Piet,</p>	<p><b>Spreadsheets (3.3)</b> To use the symbols more than, less than and equal to, to compare values. To use 2Calculate to collect data and produce a variety of graphs. To use the advanced mode of 2Calculate to learn about cell references.</p> <p><b>Touch Typing (3.4)</b> To introduce typing terminology. To understand the correct way to sit at a keyboard. To learn how to use the home, top and bottom row keys. To practise typing with left and right hand.</p> <p><b>Microsoft PowerPoint (3.9)</b> To understand the uses of PowerPoint. To create a page in a presentation.</p>	<p><b>Spreadsheets (4.3)</b> To format cells as currency, percentage, decimal to different decimal places or fractions. To use the formula wizard to calculate averages. To combine tools to make spreadsheet activities such as times tables tests. To use a spreadsheet to model a real life situation. To add formula to a cell to automatically make a calculation in that cell.</p> <p><b>Making Music (4.9)</b> To identify and discuss the main elements of music. To understand and experiment with rhythm and tempo. To create a melodic phrase.</p>	<p><b>Spreadsheets (6.9) L1 to 4</b> To know what a spreadsheet looks like. To navigate and enter data into cells. To introduce some basic data formulae in Excel for percentages, averages and max and min numbers. To demonstrate how the use of Excel can save time and effort when performing calculations. To use a spreadsheet to model a real-life situation. To demonstrate how Excel can make complex data clear by manipulating the way it is presented.</p> <p><b>Databases (5.4)</b> To know how to search for information in a database. To contribute to a class database.</p>	<p><b>Spreadsheets (6.9) L5 to 8</b> To introduce some basic data formulae in Excel for percentages, averages and max and min numbers. To demonstrate how the use of Excel can save time and effort when performing calculations. To use a spreadsheet to model a real life situation. To demonstrate how Excel can make complex data clear by manipulating the way it is presented. To create a variety of graphs in Excel. To apply spreadsheet skills to solving problems.</p> <p><b>Blogging (6.4) – SATs term</b> To identify the purpose of writing a blog and identify the features of a successful blog. To plan the theme and content for a blog. To understand how to write a blog. To consider the effect upon the audience of changing the visual properties of the blog. To understand how to contribute to an existing blog. To understand how and why blog posts are approved by the teacher. To understand the importance of commentary on blogs.</p>



		<p>To add backgrounds to a story. To share e-books on a class display board.</p> <p><b>Word Processing (Twinkl)</b> I can type on a keyboard. I can type symbols and save files. I can edit text.</p>	<p>Mondrian and recreate the style using lines template. To learn about the work of William  Morris and recreate the style using patterns. To explore surrealism and eCollege.</p> <p><b>Making Music (2.7)</b> To make music digitally. To explore, edit and combine sounds. 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. To use these sounds to create tunes.</p> <p><b>Word Processing (Twinkl)</b> I can use keyboard. I can select and format text. I can format the font.</p>	<p>To add media, animations and timings to a presentation. To use the skills learnt to design and create an engaging presentation.</p> <p><b>Word Processing (5.8)</b> To know what a word processing tool is for. To add and edit images in a word document.</p>	<p>To electronically compose a piece of music.</p> <p><b>Effective Searching (4.7)</b> To locate information on the search results page. To use the search effectively to find out information. To assess whether an information source is true and reliable.</p> <p><b>Animation (4.6)</b> To discuss what makes a good film or cartoon. To learn how animations are created by hand. To find out how animation can be created in a similar way using the computer. To learn about onion skinning in animation. To add backgrounds and sounds to animations. To be introduced to 'stop motion' animation. To share animation on class display board and by blogging.</p> <p><b>Word Processing (5.8)</b> To know how to use word wrap with images and text. To change the look of the text within the document.</p>	<p>To create a database around a chosen topic.</p> <p><b>Game Creator (5.5)</b> To plan a game. To design and create a game environment and quest. To finish and share a game. To self and peer evaluate.</p> <p><b>3D Modelling (5.6)</b> To be introduced to 2Design and Make and the skills of computer aided design. To explore the effects of moving points when designing. To design a 3D model to fit a certain criteria. To refine and print a model</p> <p><b>Word Processing (5.8)</b> To add features to a document to enhance its look and usability. To use tables within MS Word to present information.</p>	<p><b>Quizzing (6.7)</b> To create a picture-based quiz for young children. To learn how to use the question types within 2Quiz. To explore the grammar quizzes. To make a quiz that requires the player to search a database. To make a quiz to test your teachers or parents.</p> <p><b>Word Processing (5.8)</b> To introduce children to templates. To consider page layout including heading and columns.</p>
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	YFYS	Y1	Y2	Y3	Y4	Y5	Y6
<b>Digital Literacy</b>		<p>Recognise common uses of information technology beyond school.</p> <p>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.</p>		<p>Use technology safely and respectfully and responsibly; recognize acceptable/ unacceptable behavior; identify a range of ways to report concern about contact.</p>			
	Children understand what it meant by technology and can name some examples at home and at school.	<p><b>Technology Outside School (1.9)</b> To walk around the local community and find examples of where technology is used. To record examples of technology outside of school.</p>	<p><b>Effective Searching (2.5)</b> To understand the terminology associated with searching. To gain a better understanding of searching on the internet. To create a leaflet to help someone search for information on the internet.</p>				
	<p>See separate plan for online safety using Project Evolve resources and based on Educated for a Connected World document</p>						