

### 3. Progression + Coverage of Core Knowledge + Skills – COMPUTING

Year: 1 Subject Leader: K.Ryan

	Autumn 1 7 weeks	Autumn 2 7 weeks	Spring 1 5 weeks	Spring 2 6 weeks	Summer 1 6 weeks	Summer 2 7 weeks
Topic:	In the Garden		Time Travellers		Around the World in 80 days	
Coverage Overview	<b>Digital Literacy</b> PM Unit 1.1: Online Safety and Exploring Purple Mash (4)  <b>Information Technology</b> PM Unit 1.2: Grouping and Sorting (2) <b>Maths</b>	<b>Information Technology</b> PM Unit 1.3: Pictograms (3) <b>Maths</b>  <b>Computer Science (Programming)</b> <u>Revisit</u> – Beebots (1) PM Unit 1.4: Lego Builders (3)	<b>Computer Science (Programming)</b> PM Unit 1.5: Maze explorers (4)  <b>Digital Literacy - E-Safety</b> Whole school focus. Ongoing / revisited in other terms.	<b>Information Technology</b> PM Unit 1.6: Animated Story books (5) <b>English / Arts</b>	<b>Computer Science (Programming) / Information Technology</b> PM Unit 1.7 Coding (6)	<b>Information Technology</b> PM Unit 1.8 Spreadsheets (3) <b>Maths</b>  <b>Digital Literacy</b> PM Unit 1.9: Technology Outside school (2)
Core Knowledge	<p>I understand what is meant by 'technology' and can identify some examples. (DL)</p> <p>I know and understand why I have to log-in to access a computer. (DL)</p> <p>I know why it is important to keep my password private. (DL)</p> <p>I know that I can save work in a set place so that I can retrieve it at a later stage. (IT)</p> <p>I know what an 'avatar' is and why we use them. (DL)</p>	<p>I know that data can be represented in a picture format. (IT)</p> <p>I know that pictograms are charts / graphs that represent data in a simple way. (IT)</p> <p>I know that an algorithm is a set of clear and precise instructions to solve a problem or achieve an aim. (CS)</p> <p>I know that an algorithm written for a computer or programable toy is called a 'program'. (CS)</p> <p>I know that correcting an error in an algorithm is called 'debugging'. (CS)</p>	<p>I know how to use the direction keys to move forwards, backwards, left and right. (CS)</p> <p>I know how to create a simple algorithm. (CS)</p> <p>I know I need to debug my algorithm to make sure it works properly. (CS)</p> <p>I know that an algorithm must be followed in order, to solve a problem or achieve an aim. (CS)</p> <p><b>Digital Literacy - E-Safety:</b></p> <p>I know why it is important to be kind and polite, including when online, and can talk about ways to do this / what I should do if someone is unkind to me. (DL)</p> <p>I know that some devices can connect users with other people, e.g. phones, internet, Xbox etc. (DL)</p> <p>I know that not everyone is who they say they are on the internet. (DL).</p> <p>I know to tell an adult when I see something unexpected or worrying online (DL).</p>	<p>I know the difference between a traditional book and an e-book. (IT)</p> <p>I know what the space bar is and can use it to make spaces between words. (IT)</p> <p>I know how to add simple punctuation to my text, e.g. full stop. (IT)</p> <p>I know how to save my work. (IT)</p> <p>I know how to open previously saved work. (IT)</p> <p>I know that the style of font can be changed and will affect the overall appearance of my work. (IT)</p>	<p>I know how to create a simple algorithm. (CS)</p> <p>I know I need to debug my algorithm to make sure it works properly. (CS)</p> <p>I know that my code is executed when the program is run. (CS)</p>	<p>I know what rows and columns are on a grid. (IT)</p> <p>I know that a spreadsheet can help me to store and organise information. (IT)</p> <p>I know some of the ways that technology is used in our lives in and out of school. (DL).</p> <p>I understand and can talk about some of the ways technology makes our lives easier. (DL)</p>
Skills Development	<p>I can log in safely, using my password, with some support. (DL/IT)</p> <p>I can save my work in a designated place, with some support. (IT)</p> <p>I can use the tools to create an avatar to represent myself. (IT)</p> <p>I can use the keyboard to type my name independently. (IT)</p> <p>I can sort items, both online and offline, using a range of criteria. (IT)</p>	<p>I can use the keyboard to enter data into a simple pictogram and use it to find answers to simple questions / explain what the pictogram shows. (IT)</p> <p>I can follow a given sequence to program a floor robot to move in a planned way, inc forwards, backwards and turns. (CS)</p> <p>I can use symbols to represent an instruction in the correct order, e.g. <math>\uparrow \rightarrow</math> for forward and turn right. (CS)</p> <p>I can create and follow simple algorithms to program the computer to do a given task. (CS)</p>	<p>I can use the direction keys to create a new algorithm. (CS)</p> <p>I can work out what is wrong with a simple algorithm and debug it to correct it. (CS)</p> <p><b>Digital Literacy - E-Safety:</b></p> <p>I can identify what personal information is and understand that I should not share this online. (DL)</p> <p>I can talk about some of the ways to keep safe online. (DL)</p> <p>I can seek support from a trusted adult if I am worried about something I have seen online. (DL)</p>	<p>I can use a paint program to create pictures, changing the size and colour of the pen. (IT)</p> <p>I can access the tools in a paint program to draw shapes and fill them with colour. (IT)</p> <p>I can change the background on my page. (IT)</p> <p>I can begin to change some features of the text, e.g. font style and size. (IT)</p> <p>I can add an image or sound clip to my storybook. (IT)</p> <p>I can use the keyboard to type words and phrases. (IT)</p> <p>I can save my work, in a designated space and retrieve it at a later stage, with some support. (IT)</p>	<p>I can create a program using code blocks. (CS)</p> <p>I can draw symbols to represent instructions. (CS)</p> <p>I can arrange code blocks to create a set of instructions. (CS).</p> <p>I can edit a scene by adding, deleting or moving objects. (IT)</p> <p>I can change the size of objects. (IT)</p>	<p>I can enter data into a simple spreadsheet and begin to explain what the data tells us. (IT)</p> <p>I can use the 'lock' tool to prevent changes to cells.</p> <p>I can use the image toolbox to find and add an image. (IT)</p> <p><u>Extension:</u> I can use the spreadsheet to help work out a fair way to share items. (IT)</p> <p>I can explain what is meant by 'technology' and can identify a variety of examples in and out of school. (DL)</p>

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Topic:	In the Garden					Time Travellers				Around the World in 80 days				
Critical Vocab	Log in	Folder	Data	Program	Sequence	Internet	Program	Traditional book	Font	Program	Execute	Spreadsheet	Technology	
	Password	Avatar	Pictogram	Algorithm	Symbol	Online	Algorithm	e-book	Size	Algorithm	Run	Data	Devices	
	Private	Image	Tally/	Instructions	Arrows	Communication	Instructions	Space bar	Style	Instructions	Code	Cell		
	Save	Sort	chart	Clear	Directional vocabulary	Cyberbullying	Clear	Keys	Appearance	Clear Precise	Code blocks	Row		
	Safety	Criteria	Represent	Order		Personal Information	Precise	Type	Image	In order	Error	Column		
	Retrieve	Grouping	Keyboard		Error	Permission	In order	Save	Sound clip	Sequence	Debug	Grid		
			Type		Debug /Fix	Log-in / Password	Sequence	Open / retrieve				Formula		
						Right	Arrows	Folder						
						Privacy	Directions	Paint program						
						Devices	Keys	Tools						
						Error								
						Debug								
						Correct								
Enrichment Opportunities	Sorting plants / minibeasts		Challenge the children to move BeeBot around the garden.			E-Safety day / week (Feb)		Time travelling adventure stories						
			Purple Mash Festive Card Design competition											
Assessing Impact	Login independently and open Purple Mash and use search bar to find resources. Can apply sorting skill within Purple Mash using the range of sorting activities with more than one criterion.		Collate data from rolling a die and record the results within 2Count (demonstrating that they can group collated data into pictorial representations)			Create a set of written instructions for other children to follow using the 'coders and robot' game  Use the 'list' feature in 2Go to generate an algorithm to solve a given problem.		Use the 'My Story' aspect of 2Create a Story to create an interactive story.		Design a program that controls the look and the actions of objects using 2Code.		Using the 2Calculate spreadsheet, children can save and open sheets (Unit 1.8 Lesson enter data into cells, manipulate data using the 'move cell' tool and use the image toolbox to add clipart.		
						<b>Digital Literacy - E-Safety:</b> Discussions with pupils E-safety quiz						Can you give 3-4 examples of how where technology is used and how this helps our lives?		