



Computing Year 1

	Term 1		Term 2		Term 3
Unit of work	Introducing Algorithms	Staying Safe Online and iPads	Algorithms to Programs	Logging On	Digital Storybook
Link to Programme of study	Computer Science	Digital Literacy – inc. online safety	Computer Science	Digital Literacy – inc. online safety	Digital Literacy – inc. online safety
Composite knowledge	<p>Computers are machines that only follow instructions.</p> <p>The term computer refers to all digital devices</p> <p>The instructions we give to computers are called algorithms The order of the steps in an algorithm are important</p>	<p>Recognise they need to be careful when using computers connected to the internet</p> <p>Know who to approach for help and support</p> <p>That all devices can be used for content creation as well as just to 'play'</p>	<p>Algorithms are programmed into computers</p> <p>How to create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>How to use their username and password to access the school laptops</p> <p>How to access the Web and search for websites</p> <p>Use the laptops to create digital artefacts and save them</p>	<p>Use the laptops to create, save, retrieve and combine digital artefacts</p> <p>Create different digital artefacts utilising different software and various inputs</p>
Intentional knowledge they need to understand (Component knowledge)	<p>How to follow, test, debug and write an algorithm expressed in arrows and pictures.</p> <p>Directional language: forwards, backwards, left and right</p> <p>Recognise digital devices in the world around them</p>	<p>It is okay to ask for help if unsure on the computer</p> <p>What personal information is and why they shouldn't share it</p> <p>How to use the apps on the iPad to create animations / comics</p> <p>That their devices are connected to others all around the world</p>	<p>Directional Language</p> <p>Importance of the order of the steps in an algorithm</p> <p>How to write and debug algorithms</p> <p>How to program a Beebot</p>	<p>Where to find the keys on the keyboard and type their name and password</p> <p>How to use a trackpad to control the cursor</p> <p>Web browsers allow them to look at websites</p> <p>They can find websites by using search engines</p> <p>How to navigate the different options in programs e.g. select different colours and undo mistakes</p> <p>Begin to understand how to save their work</p>	<p>Use a microphone</p> <p>Use a camera</p> <p>Use the keyboard</p> <p>Use the trackpad</p> <p>Save work</p> <p>Insert saved objects into a different software package</p> <p>Select different options, experiment and undo changes</p>

National Curriculum KS1 (skills)	Key stage 1 Pupils should be taught to: <ul style="list-style-type: none"> 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
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	<ul style="list-style-type: none"> use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content recognise common uses of information technology beyond school 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. 				
Vocabulary	Algorithm, Order, Debugging, Left, Right, Forward, Backwards	Personal information, Name, Age, School, Address / where you live, Password, No	Algorithm, Order, Debugging, program, Beebot	Laptop, Keyboard, Username, Password, log in, sign out	
Links to prior knowledge (EYFS)	Links to sequencing stories in Literacy Using Beebots in Reception		Writing algorithms (Year 1 topic introducing algorithms) Directional language Turn in math	Algorithms	
Key knowledge for assessment	Recognises a range of devices as types of computers Have experience of writing, testing and debugging algorithms Can identify the errors in a simple algorithm	Know who to ask for help if they are unsure or worried about anything online Have experience of using apps to create digital content	Can write, test and debug an algorithm Can program algorithms into a Beebot Predict the outcome of simple programs	Can log in to the computer and navigate to a website independently Has created a picture in paint and saved it	
Cross Curricular Links	Turn in Maths Sequencing in Literacy and History	PSHE	Turns in Maths Sequencing in Literacy etc.	Art	Art Literacy
Oracy & Outdoor Learning Links	Giving verbal instructions to a partner	Role playing what to say if asked for personal information Sharing experiences online Rehearsing how to ask for help	Talk partners		