Computing Year 1

	Term 1	Term 2	Term 3	
Unit of work	Introducing Algorithms	Logging On	Personal Information and iPads (3 lessons)	Beebot Algorithms (3 lessons)
Link to Programme of study	**Computer Science**	**Digital Literacy – inc. online safety**	**Digital Literacy – inc. online safety**	**Computer Science**
Composite knowledge	Computers are machines that only follow instructions. The term computer refers to all digital devices The instructions we give to computers are called algorithms The order of the steps in an algorithm are important	How to use their username and password to access the school laptops How to access the Web and search for websites Use the laptops to create digital artefacts and save them	Recognise they need to be careful when using computers connected to the internet Know who to approach for help and support That all devices can be used for content creation as well as just to 'play'	Algorithms are programmed into computers How to create and debug simple programs Use logical reasoning to predict the behaviour of simple programs
Intentional knowledge they need to understand (Component knowledge)	How to follow, test, debug and write an algorithm expressed in arrows and pictures. Directional language: forwards, backwards, left and right Recognise digital device sin the world around them	Where to find the keys on the keyboard and type their name and password How to use a trackpad to control the cursor Web browsers allow them to look at websites They can find webistes by using search engines How to navigate the different options in programs e.g. select different colours and undo mistakes Begin to understand how to save their work	It is okay to ask for help if unsure on the computer What personal information is and why they shouldn't share it How to use the apps on the iPad to create animations / comics That their devices are connected to others all around the world	Directional Language Importance of the order of the steps in an algorithm How to write and debug algorithms How to program a Beebot
National Curriculum KS1 (skills)	**Key stage 1** **Pupils should be taught to:** • 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 - 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	Computer, Algorithm, Instructions, Order, Debugging, Left turn, Right turn, Forward, Backwards	Laptop, Keyboard, Username, Password, Web browser, Search engine, Paint, Save, Sign out	Personal information, Name, Age, School, Address / where you live, Password, No	Algorithm, Order, Debug, program, Forwards, Backwards, Left turn, Right turn, Beebot
Links to prior knowledge (EYFS)	Links to sequencing stories in Literacy Using Beebots in Reception	Algorithms		Writing algorithms Directional language Turns in maths
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	Can log in to the computer and navigate to a website independently Has created a picture in paint and saved it		Can write, test and debug an algorithm Can program algorithms into a Beebot Predict the outcome of simple programs
Cross Curricular Links	Turn in Maths Sequencing in Literacy and History	Art		Turns in Maths Sequencing in Literacy etc.
Oracy & Outdoor Learning Links	Giving verbal instructions to a partner		Role playing what to say if asked for personal information	Talk partners