COMPUTING – Curriculum Map 2022/23 & 2023/24

Key Stage 1

Cycle A

Staying safe online	Algorithms	Scratch Jr	Programming & debugging	Using data
				
Do the right thing - Cyber/Online Safety	Crazy Character Algorithms An introduction to sequences of instructions	Scratch Jr Tinkering	Bee-Bots 123	Data Dash
Children begin by considering the subject of ownership, permissions and the use of digital resources, which are the basics of the ethical use of computers, including data literacy and cyber security.	Children will create a set of instructions on how to draw a crazy character and so start to understand what algorithms are.	Children explore an existing ScratchJr program, which is an animation of creatures under the sea, before then tinkering with a blank project in ScratchJr.	Children create a sequence of instructions (an algorithm) to draw the shape of a numeral e.g. 3. An algorithm is a sequence of instructions, or a set of rules, for performing a specific task. Programming in this activity involves taking the algorithm and using it to program a Bee-Bot to navigate a route tracing out the shape of the numeral.	Children are introduced to the idea of attributes, the name given to pieces of data, and use these to solve problems. They spot patterns, i.e. what is the same or different about shapes, flags and sports kits. They spot and fix mistakes in kit designs that are not quite right.

Cycle B

Staying safe online	Algorithms	Scratch Jr	Programming & debugging	Using data	Using computing
					
Who does this belong to?	Patterns Unplugged Activity: Elephants, Cats and Cars	ScratchJr Knock-Knock Joke Activity	World Map logic, Pizza pickle Scratch debugging, Decomposition unplugged KS1	Data Dash Collecting data	Barefoot Careers – Technology match
Children begin by re-visiting the subject of ownership, permissions and the use of digital resources, which are the basics of the ethical use of computers, including data literacy and cyber security.	Children spot patterns in sets of pictures of objects and think of general statements to describe these things e.g. elephants, cats, cars. The emphasis of this activity is on children thinking what is the same, what is different and are there general statements they can make about things.	Children create a simple animation program of a knock-knock joke. They use a storyboard to create their design, write the code in ScratchJr, debug and evaluate. Key learning is that children control the timing and order of the two sprites saying the knock-knock joke lines and the *wait* command is used to sequence the events.	Children look at sequences of commands to predict what they do, they use logical reasoning to explain their predictions before programming and testing their commands to see if their predictions are correct. Children are given programs to fix them, using logical reasoning to predict what will happen and developing their debugging skills. decomposing. Children then link this idea to breaking problems down when creating computer programs.	Children answer questions about countries' performance in a multi-sports competition by selecting and using data attributes and values. They then plan how to answer a question by identifying the data they will need to collect. Children enter the data they collected into spreadsheets, then set up formula and evaluate their data to decide if it answers the question. Children use spreadsheets to create further calculated data and analyse this to provide an answer to their given question.	Children learn about people's jobs and some of the technology they use.