Eversley Primary School– Knowledge Organiser

Computing	Programming A – Robot Algorithms	Year 2	Spring Term

Key Knowledge

To describe a series of instructions as a sequence	• I can follow instructions given by someone else • I can choose a series of words that can be acted out as a sequence • I can give clear instructions
To explain what happens when we change the order of instructions	• I can use the same instructions to create different algorithms • I can use an algorithm to program a sequence on a floor robot • I can show the difference in outcomes between two sequences that consist of the same instructions
To use logical reasoning to predict the outcome of a program	• I can follow a sequence • I can predict the outcome of a sequence • I can compare my prediction to the program outcome
To explain that programming projects can have code and artwork	• I can explain the choices that I made for my mat design • I can identify different routes around my mat • I can test my mat to make sure that it is usable
To design an algorithm	• I can explain what my algorithm should achieve • I can create an algorithm to meet my goal • I can use my algorithm to create a program
To create and debug a program that I have written	• I can test and debug each part of the program • I can plan algorithms for different parts of a task • I can put together the different parts of my program

Possible experiences

- Create your own instructions to direct a BeeBot by downloading the APP "BeeBot education"
- Create a treasure map of your house giving instructions to create an algorithm for someone to follow or use a remote control toy to follow your own instructions.
- Take coding outdoors! Follow the link for some unplugged activities to embed the key principles within creating algorithms. 5 Easy Unplugged Coding Activities You Can Do Outside (teachyourkidscode.com)

Statutory requirements

- 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

Key vocabulary

Spelling	Definition
Algorithm	A precise set of ordered steps that can be followed by a human or a computer to achieve a task
Command	A single instruction that can be used in a **program** to control a **computer**
Sequence	A sequence is a series of events that must be performed in order to achieve a task
Program	A set of ordered **commands** that can be run by a **computer** to complete a task
Debugging	The process of finding and correcting errors in a **program**