Computing Strand 2 : Computer Science	Computing Knowledge organiser	**Learning lens:** Computer Science **Focus:** Bee-Bots **Class**: Year 1

Previous Knowledge

With support input a simple sequence of commands to control a digital device– a Bee Bot.

Learning Steps	Key Knowledge (answers)
Tinkering to find out about Bee-Bots	Children to explore with the Bee-Bots What does it do? How does it do that? What else does it do? What 3 surprising things can you make it do? What can it not do? What could make it better?
Bee-Bot Mazes	Children will use the 5 commands to direct a Bee-Bot successfully through a maze of cubes. The algorithm might be forward, forward, left, forward, forward, forward, forward, right.
To write an algorithm and program a Bee-Bot to make numerals 1-4	Verbally say a bossy Bee-Bot command. Know the 5 Bee-Bot commands forward, backwards, left, right and pause. Record and use an algorithm to programme the Bee-Bot to form the numerals 1-4
To write an algorithm and program a Bee-Bot to make numerals 5-9	Verbally say a bossy Bee-Bot command. Know the 5 Bee-Bot commands forward, backwards, left, right and pause. Record and use an algorithm to programme the Bee-Bot to form the numerals 5-9
Final outcome	Children use their numeral algorithms to give a secret code to another group.

The key skills we want pupils to use during this topic:

- I can create a simple program e.g. sequence of instructions for a Bee-Bot
- I can use sequence in programs
- I can identify the input of a 'wrong instruction' in my Beebot- a simple bug

Key vocabulary

Programming	The act of translating ideas for doing something (algorithms) into instructions (code) that can be followed by a computer; it is a crea-
Debugging	Pupils debug their algorithm or program if there is an error in it
Algorithms	A set of rules to be followed by the Bee bot or a computer
Tinkering	having a play to find out how it works, what it does, and how you

Curriculum Links

Create simple programs

Recognise common uses of information technology beyond school

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