

Year 1 Term 5

Where do I fit in?

COMPUTING



### Progression in Skill:

Understand algorithms as sequences of instructions in everyday contexts.  
Take real world problems and plan a sequence of steps to solve these.  
Give explanations for what they think a program will do.  
Program floor turtles using sequences of instructions to implement an algorithm.

### Long-term Memory Knowledge:

Follow a set of instructions and a map.  
Know how to use a bee-bot: be able to switch it on and program it to move in a given direction.  
Use the commands forwards, backwards, left and right to get from point A to point B

### Key Vocabulary

<b>algorithm</b>	instructions that are split into little steps so that a computer can solve a problem
<b>bee-bot</b>	a resource that can be programmed to move forwards and backwards and turn in different directions
<b>program</b>	a set of instructions that a computer can understand to make something happen
<b>debug</b>	fix errors in a program
<b>predict</b>	make a guess
<b>map</b>	a drawing of an area to help people travel and go to places

### Progression in Resources:

Bee-bots

### Relevance

<b>Now</b>	Develop an understanding that computers respond to the instructions we give them; children can program toys and equipment to get the response they want.
<b>Future</b>	Identify errors in computer inputs and be able to resolve common problems; be able to program electronic devices in everyday life so that they work as expected.
<b>Aspiration</b>	Pursue a career in computing, e.g. coder, software developer, IT technician, secondary school IT teacher.

### National Curriculum Links:

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.

### Essential Prior Learning:

Children need to understand basic directional language, such as forwards and backwards; it is useful if children can recognise left and right. They should be able to follow a series of instructions for movement, e.g. move forwards three places. Some toys can move or perform actions if they are switched on and the correct buttons pressed.