

# READ FIRST

## YEAR 3: MICROBIT FIRST STEPS

### CURRICULUM MILESTONES

*I can add extra code to enhance the function of a program*

*I can create a sequence of connected commands*

*I can use a forever loop (code that is always active while a program runs)*

*I can control or simulate programmable hardware (e.g. a Sphero robot or Microbit)*

### WHY THIS? WHY NOW?

#### CURRICULUM SEQUENCING AND ASSESSMENT

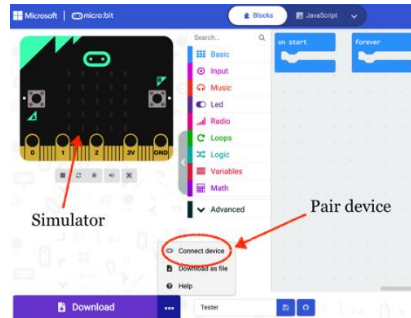
This unit is the first Programming unit for year 3, and features Microbit hardware. These micro-controllers give children a really hands-on experience with programming, seeing what they code appear before their eyes. The unit builds upon previous learning within Scratch Jr and Robot Algorithms (using Beebots) in year 2.

This unit will prepare children sufficiently to consider the second Programming unit, either in Scratch or using Sphero robots.

The unit provides building blocks for programming concepts in year 4 and beyond. For example: use of more advanced loop commands; re-ordering code for different outcomes; refactoring code to make it run better.

#### **Microbits general guidance:**

Microbits are one of the most fun and accessible pieces of programmable hardware that children can encounter at primary level. They may look intimidating at first, but these simple units allow children to learn / experiment with code in a fun and accessible manner.



Battery packs and batteries are often *optional* extras for each project – do keep them out of the way until needed.

Do refer [to this document for two main tips](#) on using Microbits successfully with a class, including pairing devices and using [Microbit Classroom](#).

With this unit at year 3, it may be better for children to be slightly older before encountering the hands-on nature of the devices and the on-screen coding environment. Spring term 2 could be a good point for this initial unit, before moving onto Programming 2 in one of the summer half terms.

### EASY ACCESS TIPS: LESSONS 1, 2 AND 3

These simple activities will get children familiar with the Makecode coding environment, and how to create simple sequences of code that can be adjusted and run on the physical Microbit.

You do not need to follow every slide in the materials if you feel that the pace of your lesson is suffering.

You will find that the coding videos, found within the Powerpoints, are a really good way to outline to children what you are looking for them to achieve with their coding. These videos can be a really good way for teachers with less experience to build confidence in the coding environment and with the Microbits themselves.

### EASY ACCESS TIPS: LESSON 4

This lesson is more involved, with children needing to test out their creations with the battery packs. This lesson might span out across more than one lesson, or take up an extended afternoon session.