

# READ FIRST

## YEAR 6: MICROBITS GET ACTIVE

### CURRICULUM MILESTONES

I can program the way that a variable changes

I can use the value of a variable as a trigger for another event

I can program and debug multiple functions on programmable hardware

### WHY THIS? WHY NOW?

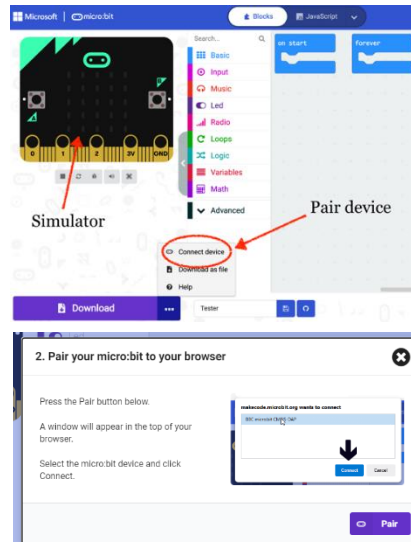
#### CURRICULUM SEQUENCING AND ASSESSMENT

This unit expands on initial learning with variables already completed in year 5's programming units, and the learning that has taken place with Programming A in year 6. The unit also includes further embedding of the concept of loops, covered in year 5. The Micro-bit context gives children a real-world, tangible and relevant experience of coding.

The unit will set children up well for further learning of code as they move to secondary education. Specifically: random number generation and further creation / use of variables within code.

#### 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.



Using a Chromebook or other laptop is normally the most reliable way to work with a Microbit, using the small USB lead to plug the device in and download code each time it is adjusted. The Microbit should be 'paired' to the chromebook or laptop so that each time the 'Download' button is clicked, it automatically updates the Microbit with the new code. This makes the process much easier for children as they adjust their code. [Summary document here!](#)

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

Ideally, this unit follows Programming A, and may be best tackled later in the year when weather allows for outdoor activity.

Do use [Microbit Classroom](#) to get code over to children in the later lessons. This will make the teaching process much simpler.

One Microbit between two children is definitely a good practical choice for running all of these lessons.

### EASY ACCESS TIPS: LESSON 1

If you have covered the basics of variables in Programming A, you may wish to skip through these tasks or cover some as a recap with the class.

### EASY ACCESS TIPS: LESSON 3

Remember to use [Microbit Classroom](#) as a way to get the example code blocks to the children easily. Children may have created a step-counter in previous units, but recapping in this activity is still useful.

### EASY ACCESS TIPS: LESSONS 4 & 5

Do not be afraid to pick and choose between slides & activities to suit your class and keep the pace of your sessions flowing.