

# READ FIRST

## YEAR 2: ROBOT ALGORITHMS

### RELEVANT KEY

### ASSESSMENT CRITERIA

**I can predict the behaviour of simple programs**

- All lessons

**I can create and run a program (an algorithm or multiple algorithms that can be understood by a computer)**

- Lessons 1-5

**I can debug (find and fix a problem) within a simple program**

- Lesson 6

### WHY THIS? WHY NOW?

### CURRICULUM SEQUENCING AND ASSESSMENT

This unit should be taught after the year 1 programming modules and the Scratch Jr: Click & Go unit within year 2. This will allow children to gain a broad range of experiences with algorithms before becoming more skilled with multiple algorithm programs and debugging.

This unit has [an accompanying 'digital floor book' here](#) which works for free through Book Creator. Pictures and videos can be added to this resource which includes key knowledge and vocabulary.

The Beebots are back! Do amalgamate sessions together in order to make best use of time – children love using Beebots but it can be time consuming.

Checking batteries / functioning beforehand is essential and you might want to consider using the iPad / Android app as a way to supplement the number of Beebots you have. The free app mimics the functioning of a Beebot and the early levels will allow children to access the same learning in a contained format. Guided Access / Apple Classroom may also be useful to lock the app so that children are focused on the activity.

Link to app: [Bee-Bot on the App Store \(apple.com\)](https://www.apple.com/uk/itunes/app-id1232447100)

Working in this way could allow staff members to work more intensely with groups of children as they access the main activity with the real-world beebots.

You will find that Lesson 1 works well by itself and then 2/3 & 4/5 fit together well. Do pick and choose from the suggested activities in each lesson for the ones that will work best with your class – don't be afraid to make the pace much faster (plus skip slides) than the lesson sequences suggest.

Lesson 6 sits by itself in some ways and could be returned to on another day. Lesson 6 is essential if you want children to explicitly do some debugging, though they will be debugging in the other lessons as well.

### EASY ACCESS TIPS: APPROACH

Do get the children to ask questions about the functioning of Beebots... the cancel button (the cross) is often misunderstood and can take some examples to show what it does (it removes previously input instructions from the "Beebot's memory").

If you have Beebot floor mats that are larger than the ones provided by the unit, they will allow for a more in-depth and interesting approach.

As children become more confident at writing down their algorithms, ask them to use plain paper to write and adjust them.