

READ FIRST

YEAR 6: VARIABLES IN GAMES

CURRICULUM MILESTONES

I can create my own variable in a program

I can program the way that a variable changes

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

WHY THIS? WHY NOW?

CURRICULUM SEQUENCING AND ASSESSMENT

This unit should be taught after the year 5 Computer Science units but before the Year 6 Microbit unit. This will allow children to master selection and loop principles before considering the power of variables in this unit.

This unit will prepare children sufficiently to consider variables further in the Year 6 Microbit unit.

The unit has an adapted online summative assessment that can be delivered freely through online platform Quizizz.

1st, [click here to make sure you are logged in.](#)



2nd, click [this link to access the quiz](#); choosing "Assign the quiz as homework" so that children can access on demand.

[Scratch](#) is the online coding environment that is most prevalent as children learn further coding routines and structures in key stage 2. While children will be keen to experiment and explore the different coding aspects within Scratch, they should be encouraged to proceed with caution, adopting a process whereby they add / change slowly and test/debug as they go – it is, otherwise, rather easy to make a jumbled mess that no-one can decipher without starting again!

Scratch does have a [teacher account mode](#) whereby student accounts can be set up and managed. However, there are limitations to this system currently and it doesn't bring all the benefits you might like.

With such limitations in mind, you may find that it's easier for students to simply click the Create button and begin projects without creating Scratch accounts. They can use *File / Save to Your Computer* to download a file (i.e. save it) and if returning at another time they can use *File / Load from your Computer* to continue on the same project.

EASY ACCESS TIPS: LESSONS 1 - 4

These lessons could be tackled over the course of 2 extended afternoon sessions. Lessons 1 and 2 together; lessons 3 and 4 together.

Teachers should work through the slides as a class group – with teacher leading the conversation and dialogue - without individual children having access to devices at first since this can be a distraction. It is always worth letting children volunteer suggestions and come up to the board / teacher laptop to change the code and see what the outcome will be.

This unit uses a number of paper-based resources in order to get children to reflect on their algorithm creation and the design process they are involved in (lessons 3 and 4).

You will notice hyperlinks for pre-made Scratch projects are shown within the PowerPoint slides – if you have a way to send links over to children (perhaps on a learning platform like Seesaw/Google Classroom, or with a tool like Apple Classroom) then it can be time-saving to send these over to children's devices in this way.