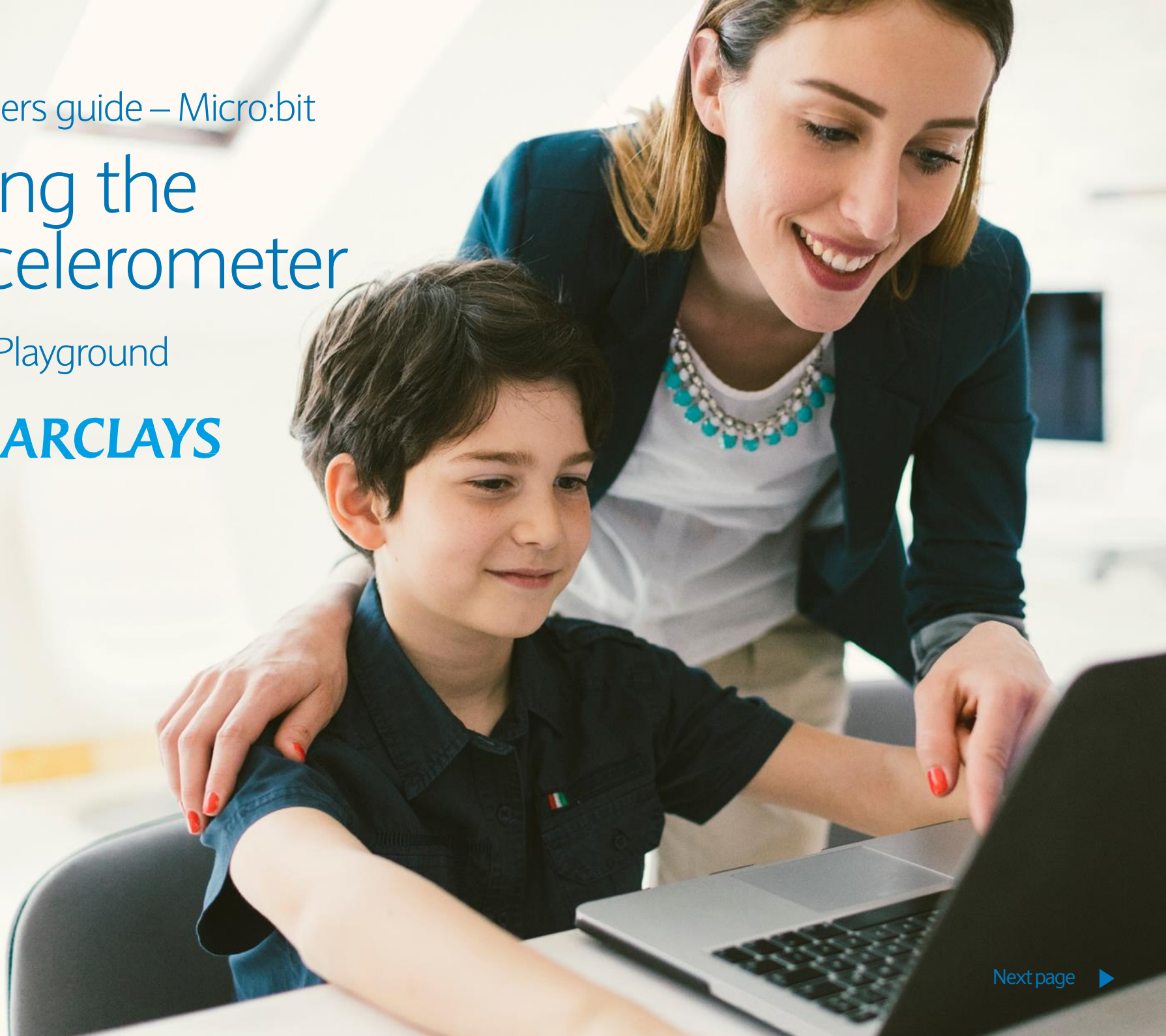


Teachers guide – Micro:bit

Using the Accelerometer

Code Playground



Using the Accelerometer

Micro:bit project

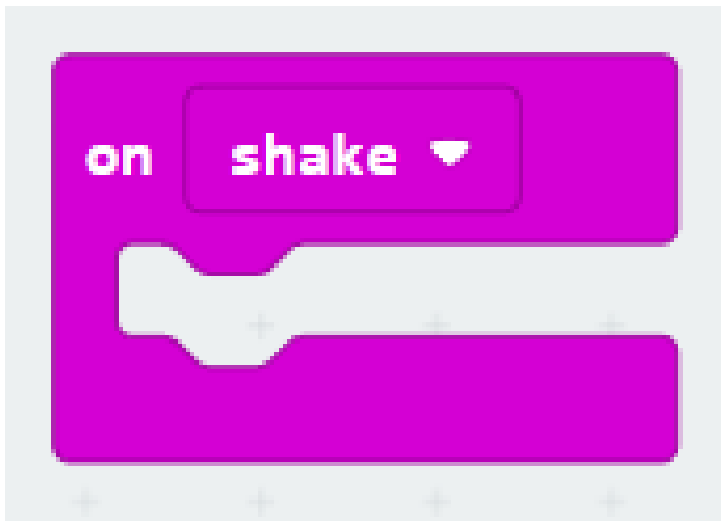
Acceleration is measured in g-force (the g stands for gravity). You'll notice that the values given by your micro:bit are in milli-g (mg) which is one thousandth of a g.

It's measured on three axes: x, y and z. Imagine your micro:bit is laid flat on a table in front of you. If you push it away from you, the micro:bit is accelerating along the y axis. If you slide it horizontally across the table, that's acceleration along the x axis. If you lift it directly upwards off the table, the micro:bit is accelerating on the z axis. Movement in any other direction is acceleration on any combination of 2, or all three axes

Using the Accelerometer

Micro:bit project

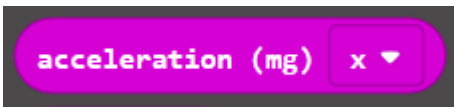
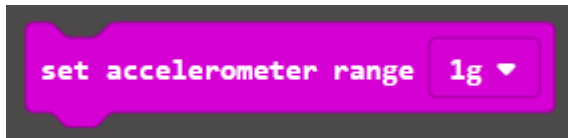
The 'on shake' block is a basic example of a block that uses acceleration. Use the drop down arrow to see all of the other input options. For this activity, we need the micro:bit to measure acceleration in ANY direction, so 'shake' would be the most appropriate option here



Using the Accelerometer

Micro:bit project

There are some other acceleration blocks which you won't need for this activity



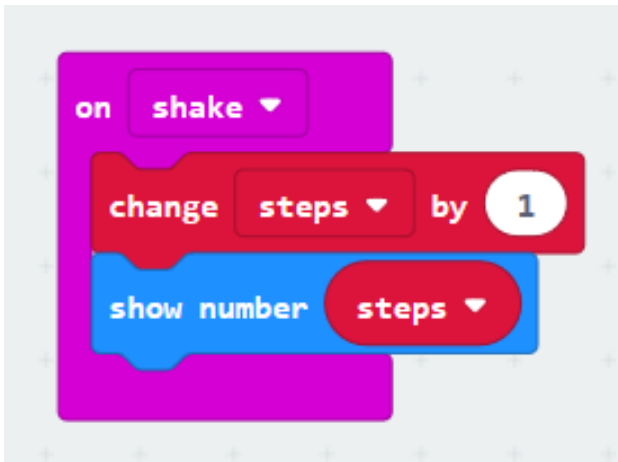
A variable is required for this activity, so that the micro:bit can count and store the number of shakes, or steps.



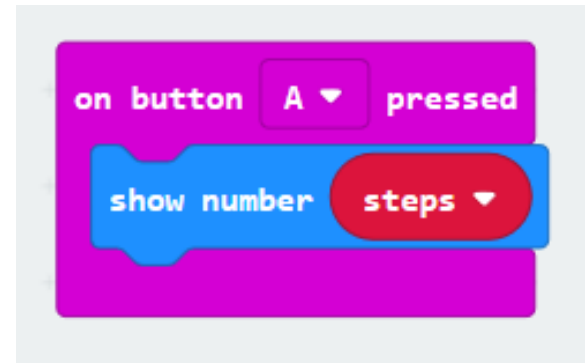
Using the Accelerometer

Micro:bit project

This is the very basic code required for this activity, but the micro:bit won't show the number of steps without more code.



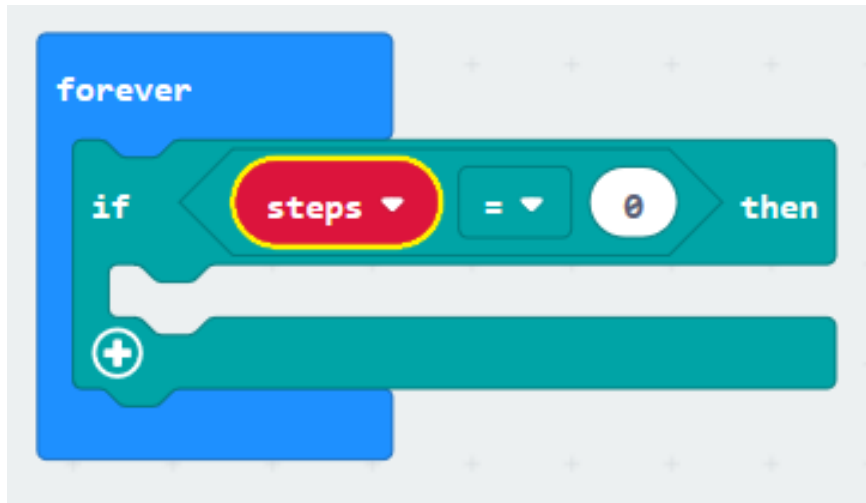
The number can either be shown constantly as it increases, or it could be shown on a button press.



Using the Accelerometer

Micro:bit project

The children could use conditional statements in order to trigger a message on the micro:bit when a step goal is reached. A forever loop should be used for this code so that the micro:bit is always checking for this in the background.



Notes

Code Playground