

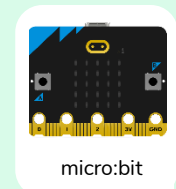
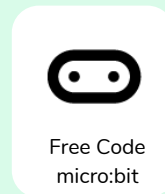


Year 3 micro:bits

Key Learning

- To use a micro:bit to create an electronic badge.
- To code a micro:bit to show animations on its LED display.
- To code a micro:bit to show different images on the LED display when specific buttons are pressed.
- To code a micro:bit to make sounds when movements are detected.

Key Resources



Key Vocabulary

Accelerometer

A sensor that detects movement.

Algorithm

A set of detailed, step by step instructions.

Animation

A method that turns still pictures into moving images. This technique can make drawings, computer graphics, or photographs appear to move.

Gestures

A type of input where the micro:bit is moved in different ways such as tilting, dropping, shaking.

Hardware

The physical parts of a computer that you can see and touch and the parts inside.

Image

A graphic representation of something on a computer screen.

Infinite Loop

A loop that runs forever.

LED

Light emitting diode - the micro:bit display is made of 25 LEDs.

Output

Information that comes out of a device e.g. sound or lights shown on the LED display.

Repeat

This can be used to make a block of commands run a set number of times.

Sequence

When a computer program runs commands in order.

Software

Programs that tell a computer what to do to complete a task.

Sound Output

Information that comes out of the computer as a sound.

Speaker

Part of the micro:bit that produces the sound output.



Year 3

micro:bits

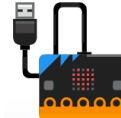
Key Images



Open, close or share
a file



Save



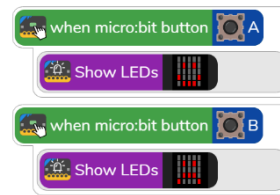
USB transfer



Test code using
simulator



Repeat block



Key Questions

What does a repeat forever loop do?

A repeat forever loop can keep code running forever.

This might be useful in situations such as making an image or text appear on the micro:bit. An example of this could be creating a basic animation where there are several images that need to continually alternate.

What outputs does a micro:bit have?

The micro:bit is able to output sounds and images/text on a display. Sounds are produced from a small speaker. Its display is made up of 25 LEDs. Text and simple images can be outputted to this display.

The micro:bit will only output if code is written for it to do so.

What inputs does a micro:bit have?

The micro:bit has many different inputs.

Some of the inputs that will be used in our learning are the buttons on the device and gestures. Buttons are simply pressed and will do something if code has been written for them. Gestures use the micro:bit's accelerometer to detect movement such as shaking and tilting.