

## Computing - Summer 1 - Year 5

This term's eSafety focus is understanding that copyright rules exist to protect original content creators

Children will be introduced to a micro:bit and learn how to programme basic codes.

### In this unit children will:

- understand that **copyright** laws exist to protect original content creators
- understand that content they choose to use or upload on the internet may be subject to copyright laws

### Learn that the **micro:bit**:

- can be programmed
- has **outputs** such as **LEDs** and sound
- has **input** sensors including **accelerometer**, thermometer, compass and light sensor.
- Write **algorithms** for specific outcomes
- Test, debug and improve algorithms

### Prior Learning

**Year 1** - Programming Toys

**Year 1 & 2** - Scratch Jnr

**Year 3 & 4** - Logo

**Year 3 onwards** - Spheros

**Year 4, 5 & 6** - Scratch

### Cross Curricular Links

**Literacy** - instructions

**Maths** -

### Key Vocabulary

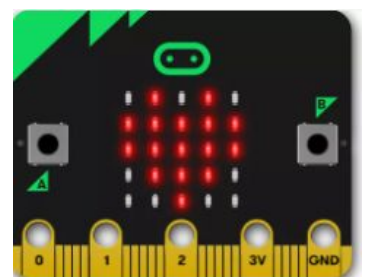
**Copyright** - Copyright protects rights of those who create content.

**micro:bit** - it is a pocket sized computer.

**inputs / outputs** - Inputs allow computers to sense things happening in the real world, so they can act on this and make something happen, usually on an output like a screen or headphones.

**Flashing** - Transferring the program to the micro:bit

**LED** -  
light-emitting  
Diode  
The micro:bit  
has 25 LEDs.



**Accelerometer** - is a motion sensor that measures movement - it detects when you tilt it left to right, backwards and forwards and up and down.

**simulator** - an area on the website to test the code.

## Key Knowledge

Programming is completed in an online editor

<https://makecode.microbit.org/>

I know that to make the micro:bit work I need to copy code from the computer to the device by connecting them with a USB cable.

I know that when the yellow **LED** on the back is blinking, the program is being transferred. Once it's copied across, the program starts running on the micro:bit.

I know that the micro:bit can be programmed with blocks of code, similar to Scratch.

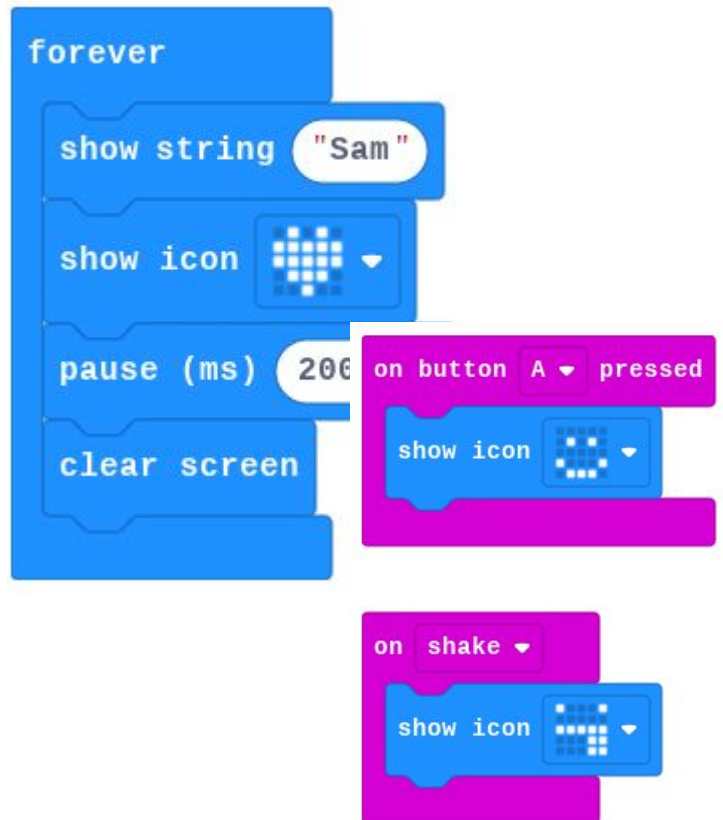
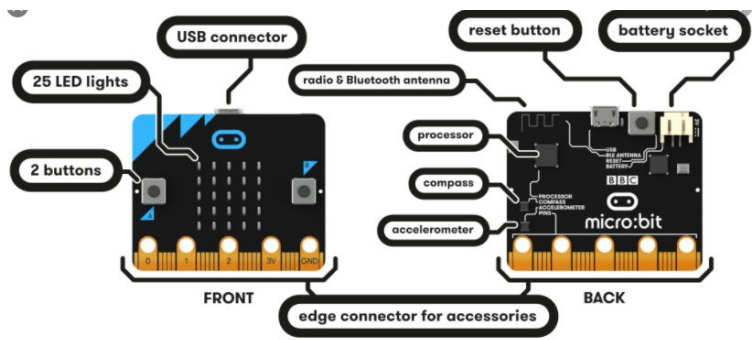
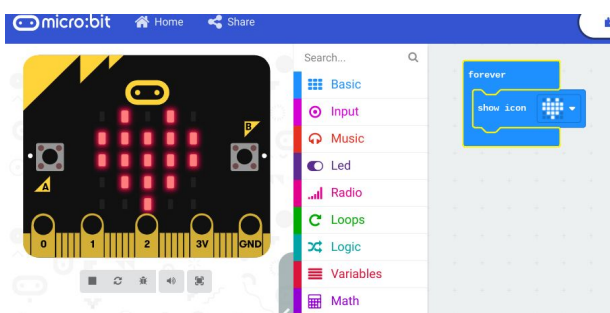


I know that 'forever' creates an infinite loop keeps the sequence going.

I know that by using the code block 'on shake' the micro:bit uses the **accelerometer**.



I know that I can test my code on the **simulator**.



## Key Questions

Is it fair to claim someone else's book as your own?

Can I change the flashing heart to a different icon?

How do I slow down the speed of the flashing?

What should I do if the code doesn't work as I expected?