Tutorial One: Getting Started with Microbit

Things are about to get real!

Open Mu

On your computer open an application called Mu. When you open it, select BBC Microbit for your mode and save the empty file in your drive with a name you can remember.

Checkpoint: Mu is an example of a code editor. Code editors provide us with a suitable space to write code (similar to if you were writing a word document, you would use Word)

Checkpoint: A Microbit is a microcontroller/piece of computer hardware with built in features (such as LED lights and buttons) that we can write code to in order to control it

Uploading Code

To upload code to our USB attached microbit, simply press the Flash button in the Mu Editor when you have written your code in the editor

The Most Important Line

For your first line in your file, write

```
1  from microbit import *
```

Checkpoint: Notice those coloured words! They are known as keywords. These words help define certain features of our program

Checkpoint: Everytime we use Microbit, we need some assistance to program it and save us from doing some very complicated things. Modules are condensed bits of code which we can reuse and import into code to help us do things without worrying how to do them. The first line is saying, “Let’s load all the knowledge from the microbit module in our code”

Displaying Stuff on the LEDS

The microbit has a 5x5 LED display on the front. Let's light it up

```
2  display.show(Image.HAPPY)
3  display.clear()
```

Checkpoint: Using our now imported knowledge from the microbit module, we tell the microbit display to show a happy image. Microbit knows about 25 different images to display so check out the Microbit help/todo in Google Classroom and find the display section to learn what other things it can display

Oh noes! It doesn't work!

Time to Sleep

If we want to show our happy face but also clear the screen, we need a time gap. To do this, we can use a function called sleep(). sleep() takes in some time in milliseconds in between the braces and then stops the program for that amount of time

```
1  from microbit import *
2
3  display.show(Image.HAPPY)
4  sleep(1000)
5  display.clear()
```

What's happening now ;-) Hint: 1000ms = One second

Now using this knowledge, can you make the display flash happy for one second and then flash Image.SAD for one second and then clear the display? I think you can!