Micro:bit

Curriculum links:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs .

Key Knowledge:

- Label parts of a Micro:bit.
- Understand that computers use physical inputs and outputs and give examples.
- Program physical inputs, outputs and variables.
- Create a program to run a controllable device.
- Use a variable in an if, then, else statement.
- Use a condition to change a variable.
- Modify a program to achieve an outcome.
- Develop an program to use inputs and outputs.
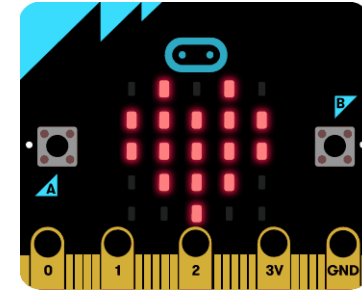- Design and create a program.

Possible programs/ websites:

- BBC Micro:bit website
- Scratch
- https://makecode.microbit.org/

(Code Editor)

We should already know:

- An algorithm is a set of simple instructions.
- Debugging is looking for errors in the code.

Key Vocabulary:

Accelerometer	A sensor that detects movement
Algorithm	A set of step-by-step instructions.
Bluetooth	A way that devices can be connected to each other—usually this will be wireless.
Flashing	The process of transferring a program to a micro:bit. It is called flashing because the program is copied to the micro:bit's flash memory.
LED	This stands for light-emitting diode. The micro:bit display is made of 25 LEDs.
Microphone	A piece of hardware that can be used to input audio.
Processor	The processor receives the inputs, runs the programs and gives outputs.
Program	A set of instructions written in code that performs a given task.
Touch sensor	A device capable of detecting when it is touched.
USB data cable	Allows the transfer of data between a computer and peripheral devices. USB is short for universal serial bus.