Year 5
Selection in Physical computing

Key vocabulary

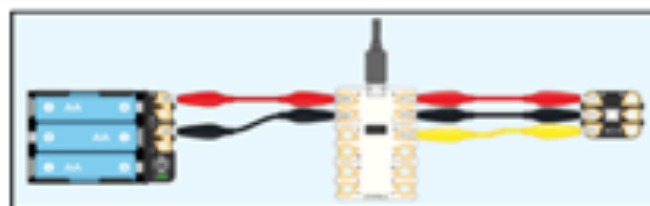|	
Hardware	Physical pieces of computing equipment
Input	The information put into a computer
output	The result of the computer running a process on the input data
Circuit	A complete physical loop that electricity can flow through
Count-controlled	An instruction that repeats a number of times
Repeat	To do the same action again
Loop	A section of code that repeats
Indefinite	Will go on for ever unless stopped
Condition	A state or rule that the computer checks to see if it is true (happening) or false (not happening)

Apps/ Software

Crumble	Scratch

Creating circuits

The USB port connects the microcontroller to a computer.

Crocodile clips pass electricity and data through to the LED/motor.

The + and - power parts on the crumble should be connected to the matching pads on the Sparkle and battery box.

The D pads on the Crumble and Sparkle should also be connected.

Physical devices

	Microcontroller - a small device (a circuit board) that can be programmed to control devices that are connected to it. The Crumble is a microcontroller.
	LEDs (Light Emitting Diodes) are output devices that produce light when electricity passes through them. The Sparkle holds LEDs.
	Motors are another output device. The motor spins an axle when electricity passes through it. The start, stop and speed of a motor can all be controlled by code.