Crumbles

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:

- Explore the crumble kits.

- Use the components to create a simple circuit.

- Understand what a microcontroller is and use it to create a simple program.

- Explain what an infinite link is.

- Connect and control more than one output to a microcontroller.

- Design sequences that use count-controlled loops.

- Explain what a condition is (true/ false, conditional loops)

- Use selections (if… then…) statements within programs.

- Design and make a program.

- Test and debug code produced.

Possible programs/ websites:

- Teach computing
- Scratch
- NCCE

We should already know:

- An algorithm is a simple instruction for the computer.

- Debug programs to ensure the achieve a specific goal.

- Use logical reasoning to correct errors.

Key Vocabulary:

Conditionals	Statements that perform different actions based on whether a condition is true or false.
Event	An action or occurrence that triggers an event handler or a sequence of events in programming.
Input	Data or information given to a computer system.
Loops	Control structures that cause a set of Instructions to be repeated multiple times.
Micro-controller	Devices that can be programed to control output devices that are connected to them.
Output	The result produced from a computer system
Sensor	A device that detects or measures a physical property and records, indicates, or otherwise responds to it
Variables	Containers for storing data values in computer programs.