

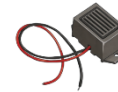
What will we be learning?

- To design our own circuits
- To create a switch that will control more than one device.
- To use CRUMBLE software to program a light show, make motors work and buzzers sound.
- To apply our circuits to our own designs.
- To create and present a final product alongside a portfolio of work.

Key facts

- To work safely with circuit components in the classroom:
- None of the equipment needs to use mains power, so do not put any of it in or near plugs.
- Report any damaged or broken equipment. Do not use it.
- Only use equipment as instructed.
- Connect equipment correctly.
- Disconnect equipment after use and put it away neatly.

Label and give a short description of these components.



Key vocabulary

- **Electricity** - The flow of an electric current through a material, e.g. from a power source through wires to an appliance.
- **Appliances** - A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
- **Battery** - A device that stores electrical energy as a chemical. Two or more cells joined together form a battery.
- **Circuit** - A path that an electrical current can flow around.
- **Symbol** - A visual picture that stands for something else.
- **Current** - The flow of electrons, measured in amps.
- **Amps** - How electric current is measured.
- **Voltage** - The force that makes the electric current move through the wires. The greater the voltage, the more current will flow.
- **Resistance** - The difficulty that the electric current has when flowing around a circuit.
- **Electrons** - Very small particles that travel around an electrical circuit.
- **Series Circuit** - A circuit that has only one route for the current to take. If more bulbs or buzzers are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of current stops.
- **Broken Circuit** - A circuit with no current.
- **Electrical conductor** - A conductor of electricity is a material that will allow electricity to flow through it.
- **Electrical insulator** - Materials that are electrical insulators do not allow electricity to flow through them.

What I have learnt.