



## Science - Electricity

YEAR 6

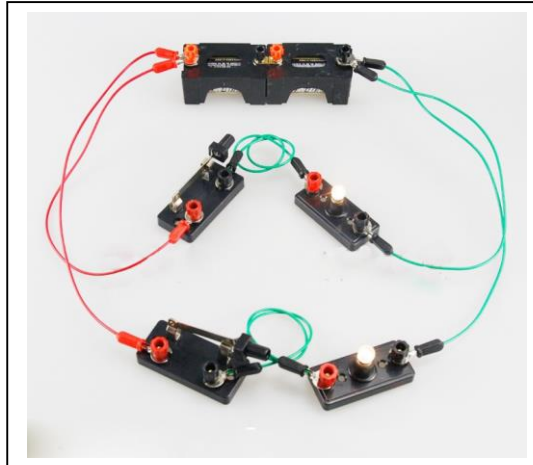
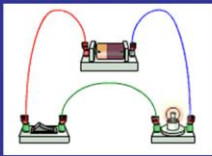
### An Electrical Circuit

A series circuit

- Electricity can flow through the components in a complete electrical circuit.
- A circuit always needs a power source, such as a battery, with wires connected to both the positive (+) and negative (-) ends. (A battery is made from a collection of cells connected together).
- A circuit can also contain other electrical components, such as bulbs, buzzers or motors, which allow electricity to pass through.
- Electricity will only travel around a circuit that is complete. That means it has no gaps.

### circuit diagram

Scientists usually draw electric circuits using symbols;



What is a switch?

- You can use a switch in a circuit to create a gap in a circuit. This can be used to switch it on and off.
- When a switch is open (off), there is a gap in the circuit. Electricity cannot travel around the circuit.
- When a switch is closed (on), it makes the circuit complete. Electricity can travel around the circuit.

Increasing the brightness of a bulb or the volume of a buzzer.

- The more cells that are used in a circuit, the brighter the bulb or louder the buzzer.
- If one cell is used, the higher its voltage, the more powerful the cell is.

### What is electricity?

Electricity is created by generators which can be powered by gas, coal, oil, wind or solar.

The electrical energy can be converted into other types of energy such as light, heat, movement or sound.

Electricity is dangerous, so be careful when using electrical appliances.

Generator	A machine that make electrical energy
Component	A part of something (a part of a circuit)

### Diagrams and Symbols

Lamp	Motor	Switch	Cell	Buzzer	Wire	Voltmeter