Fair testing research Observation over time

Electricity

Pattern seeking Identify and classify Problem solving

What materials conduct electricity?

Lesson 1 Explore electrical appliances and electrical safety.

Name one way to stay safe in your house.

Electricity, mains electricity, appliance, socket, battery.

Lesson 2 recognise electrical components in a series circuit.

Can you draw the symbol for a bulb.

Series circuit, cell, component, voltage, motor

Lesson 3 investigate electrical circuits.

Name one reason why a circuit might not work.

Power, bulb, battery, current, wire

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.
circuit	A pathway that electricity can flow around. It is based around wires and a power supply. Examples of components (parts) you can add in to a circuit are bulbs, switches, buzzers and motors.

Components (Parts) Vocabulary

cell: Normally, we would call this a battery but scientifically, this is a cell. Two or more cells joined together form a battery.

bulb: Lights up in a complete circuit.

buzzer: Makes a noise in a complete circuit.

wires: Used to connect the different components in the circuit together.

motor: Produces movement in a complete circuit.

switch: Used to turn other components in the circuit on or off.

Complete Circuit

Electricity can flow. The components will work.

Incomplete Circuit

There is a break in the circuit that prevents the electricity from flowing. The components will not work.

Switches can be used to open or close a circuit. When off, a switch 'breaks' the circuit to stop the flow of electricity. When on, a switch 'completes' the circuit and allows the electricity to flow.

toggle switch

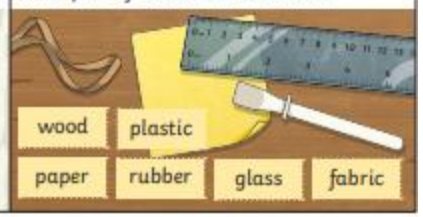
push button switch

slide switch

Key Knowledge

Examples of Electrical Conductors

Examples of Electrical Insulators



Careers connected this topic

Electrician, electrical engineer

Year 4

Autumn 2

Lesson 4 explore conductors and insulators.

What would make a good electrical conductor?

Conductor, insulator, metal, copper, rubber.

Lesson 5 learn about electrical switches.

How does a switch work

control., current, complete circuit, incomplete circuit, switch.

Lesson 6

Can you explain all you have learned from this topic?

Vocab-all words from previous lessons.