

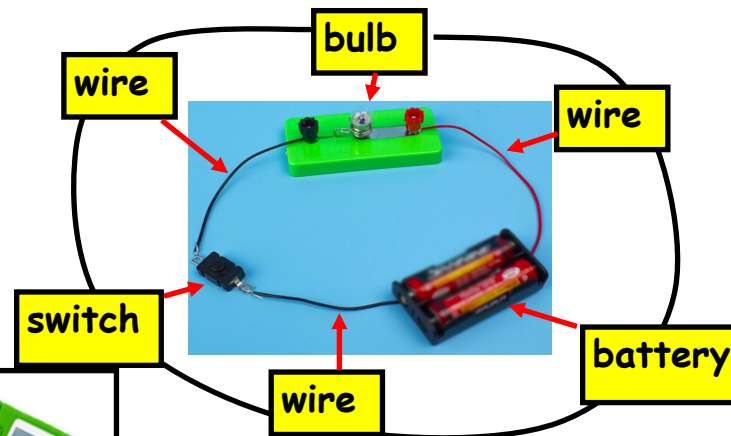
Year 4: Knowledge is power. How do those who work with electricity keep safe?

What is electricity?

- Electricity can occur naturally. We know this as lightning and static electricity.
- To power appliances we need to make electricity.
- We can burn fossil fuels (coal, oil and gas) to generate electricity.
- We can generate electricity using wind turbines, solar panels and hydroelectric (water dams).
- We can generate electricity using nuclear energy.

A simple series electrical circuit.

Electricity can only flow around a circuit that is complete. There must be no gaps! The wires must be connected to the positive and negative end of the power supply/battery.



Electrical Circuit Components



Electrical Appliance

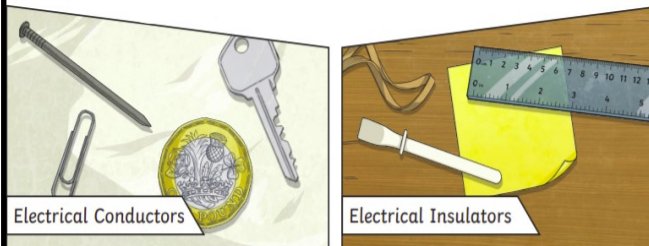
This could be any piece of equipment or device that requires electricity to work.

30 second challenge
Think of your day. What equipment and devices have you used that required electricity?



Did you know?

You can build on your Year 1 and Year 2 knowledge about materials. One of the properties of materials is whether it is a **conductor** or an **insulator**.



Vocabulary

appliance / device	A piece of equipment that needs electricity to work.
battery	A component that uses the cell to create a push of electrical energy (voltage) around the circuit.
bulb	A component that produces light.
buzzer	A component that produces sound.
cell	A device which stores electrical energy as a chemical.
component	A part of the electric circuit.
connect	To join electrical components together.
mains	The electricity supplied to buildings.
plug	It connects an appliance or device to the mains.
short circuit	A problem with the electrical circuit.
symbol	A simple picture that represents the electrical component.

CRC Article 17:
All children have the right to find out information.

