

Key questions to discuss:

- What is electricity?
- What is a cell?
- What is the role of each part in the circuit?
- How could you make the bulb light up?

Enquiry Question

What materials are conductors or insulators of electricity and is there a pattern?

Vocabulary

Electricity	a form of energy that is carried by wires and used to provide heating, lighting, and power devices.
Plug	a device with 2 or 3 prongs on the end of an electrical cord.
Socket	the part of the electrical circuit where the plug fits to make a connection
Positive	where an electric charge flows into the battery.
Negative	where an electric charge flow out
Electrical circuit	a complete route around which an electric current can flow.
Mains	where the supply of water, electricity, or gas enters a building.
Conductor	a material that allows energy to flow through it
Insulator	a material that does not allow energy to flow through it
Electrocuted	to be injured or killed by electricity

Wire

A long thin piece of metal used to carry an electric current.

Switch

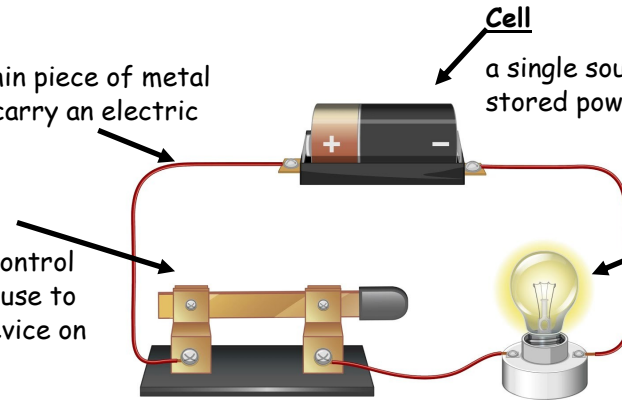
A small control that you use to turn a device on or off.

Cell

a single source of stored power.

Bulb

The glass part of an electric lamp, which gives out light when electricity passes through



A complete circuit without a break allows the bulb to light

Big appliances need main electricity and will plug into a socket. Smaller appliance can use a battery or cell, making it portable.

powered by mains electricity

powered by cells or batteries

An electric circuit has to have a power source.

Electricity can be created in a number of different ways.

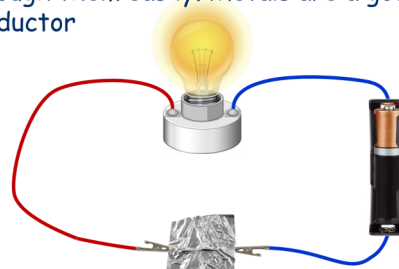
Coal, oil and gas are non-renewable energy resources. Non-renewable energy sources will eventually run out.



Solar and wind power are examples of a renewable energy resource.

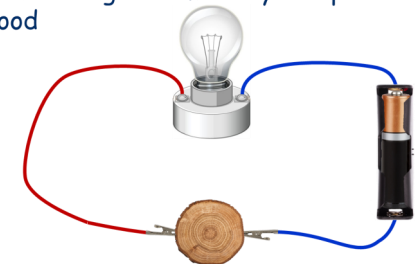


Some materials allow electricity to flow through them easily. Metals are a good conductor



These materials are called electrical conductors.

Some materials do not allow electricity to flow through them easily like plastic or wood



These materials are called electrical insulators.

ELECTRICITY SAFETY RULES

- Do NOT touch wires.
- Do NOT put your fingers in sockets.
- Do NOT fly kites or climb trees near power lines.
- Do NOT use electronics near water.
- Do NOT overload sockets/plugpoints.