

Key Vocabulary

appliances	A piece of equipment designed for a specific purpose.
circuit	A path for transmitting electric current.
cells	A unit structure used to generate electrical current through a chemical process.
battery	A device that converts chemical energy into electrical energy.
insulators	A material that blocks the flow of electrical.
conductors	A material that allows electricity to flow.

Key Facts

- A switch is a control for a circuit which can stop the flow of electricity. The switch causes a break in the circuit when 'off'.
- A conductor allows electricity to pass through easily. Materials that do not allow electricity to pass through are called insulators. Metals are good conductors.
- A battery is a small portable device that powers devices such as a torch.
- Mains power involves using a plug into a wall. This power does not work if there is a power cut but it does give more power than batteries.

Key Questions

- What is the difference between mains and battery power?
- What does a switch do to a circuit?
- Why does an incomplete circuit not work?
- Why does a complete circuit work?
- How do insulators keep us safe?
- What are the properties of a conductor?

Links to other Learning

- Year 2 - Everyday materials
Compare the suitability of materials
- Year 5 - Properties and changes of materials
Compare everyday materials based on their electrical conductivity
- Year 6 - Electricity
Associate the brightness of a lamp with the number of voltages in a cell



Appliances in the home tend to work using mains power.

Famous Scientist

Maria Telkes
1900-1995

Maria Telkes was an American scientist who specialized in creating devices to store energy captured from sunlight. She is probably best known for designing the first solar-powered heating system for houses.

