

Science Knowledge Organiser—Electricity

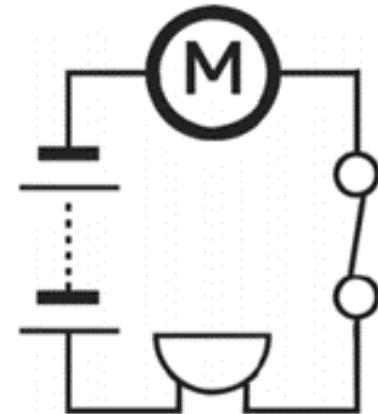
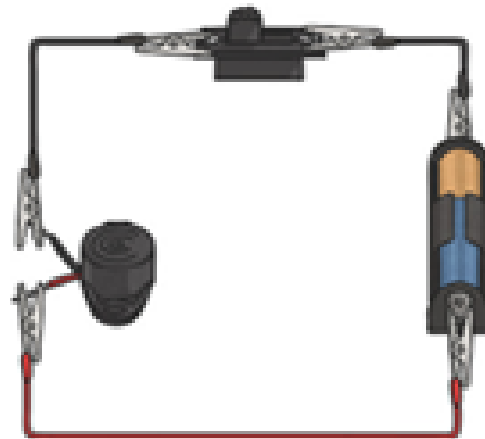
Curriculum Objectives

By the end of this unit, your child will be able to:

- Know the main circuit symbols and use these to draw circuit diagrams.
- Explain how our understanding of electricity has changed over time.
- Explain the effect of increasing or decreasing voltage on different parts of a circuit.
- Decide on variables to control while planning an investigation.
- Decide how to report on their findings.
- Make predictions based on the previous results.
- Select an appropriate scientific enquiry.



Danger
High voltage





Challenge Questions

What is the difference between electric current and voltage?

What is the world's smallest battery and what is it used for?

Key Vocabulary/Terminology

Key facts

The watt is named after James Watt, who was a Scottish inventor. He made improvements to the steam engine and used it to power machinery.

The first electric car was invented in 1835! However it wasn't very popular and it was expensive to run.

A bolt of lightning can measure up to 3 million volts, even though it will last less than a second!

Kilowatt is a unit used for measuring electrical power.

1000 watts = 1 kilowatt

Electricity	Electricity is the flow of tiny particles called electrons and protons. Today, electricity provides most of the energy to run the world.
Voltage	Is an electric force that causes free electrons to move from one atom to another.
Alternating current	Is the electric current which repeatedly changes from negative to positive and back again.
Direct current	The continuous flow of electricity through a conductor such as a wire.
Electrical current	The steady flow of electrons. When they move around a circuit they carry energy.
Components	A basic electronic element. These can be connected together to make circuits.
Static electricity	The build up of an electrical charge on the surface of an object.

