



What should I already know?

- Electricity is in my home and school.
- Electricity is used to power appliances.
- Some electricity comes from batteries.
- Electricity is dangerous so care is needed to be safe.
- When you plug in an appliance in, it will use electricity to make it come on.

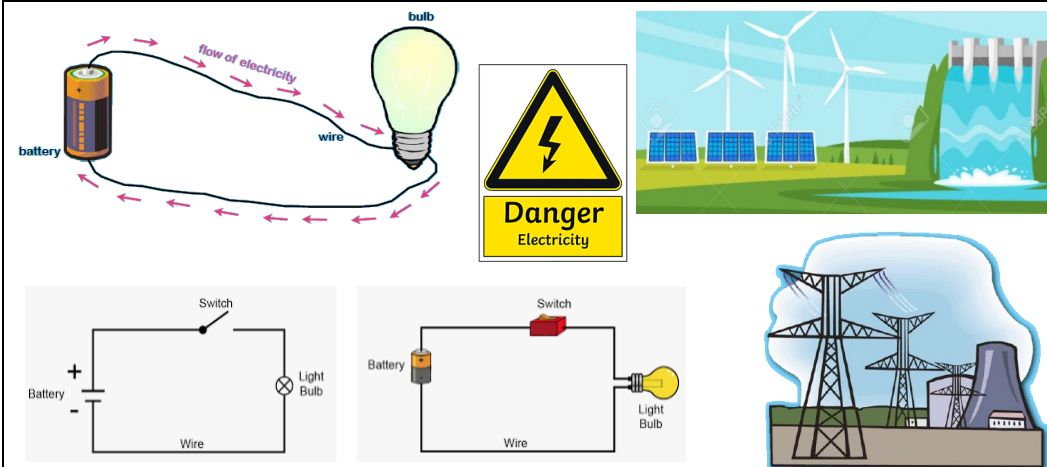
Cultural Capital -
(including focused text /
WOW moment / visitors /

Put appliances on the
tables and ask the
children how they work.
Electrician to visit the
class.

What will I know by the end of this unit?

- I will investigate circuits and their different components.
- I will investigate the difference between mains and battery-powered electricity.
- I will be able to recognise some common conductors and insulators, and associate metals with being good conductors.
- I will investigate the purposes of conducting and insulating materials.
- I will use my knowledge of circuits and conductors to create switches to create a circuit.
- I will be able to plan and carry out an experiment to see how to change the brightness of a bulb.

Diagrams



Vocabulary:

Appliances	A piece of equipment or a device designed to perform a particular job, such as a washing machine or mobile phone.
Battery / Cell	A device that stores electrical energy as a chemical.
Complete circuit	A complete path around which an electric current can flow.
Component	A part or element of a whole.
Conductor	A material or device that allows electricity to pass through it.
Electricity	The flow of an electric current through a material, e.g. from a power source through wires to an appliance.
Electrical circuit	A circuit is a complete path around which electricity can flow. It must include a source of electricity, such as a battery.
Insulator	A material or device that does not allow electricity to pass through it.
Mains	Electricity that comes from a power station and is sent to your home, school or any other place to be used for appliances.
Negative	Negative charge is carried by electrons.
Non-renewable	This source of energy will eventually run out and so will no longer be able to be used to make electricity. These include fossil fuels - coal, oil and natural gas.
Plug	A device usually on a cord used to make an electrical connection by putting it into another part.
Positive	Positive charge is carried by the protons.
Renewable	A source of electricity that will not run out. These include solar, nuclear, geothermal, hydro and wind.
Symbol	A pictogram used to represent various electrical devices or functions, such as wires, batteries, bulbs, switches, in a diagram of an electrical circuit.

Working scientifically

- To set up simple practical enquiries, comparative and fair tests.
- To ask relevant questions and use different types of scientific enquiries to answer them.
- To use scientific evidence to answer questions or to support their findings.
- To record findings using simple scientific language, drawings, labelled diagrams and tables.
- To report on findings from enquiries, including oral and written explanations.
- To use results to draw simple conclusions, make predictions, suggest improvements and raise further questions.