

Boarshaw Community Primary School - Science

Topic: Electricity

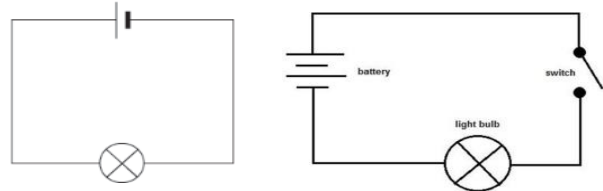
Year 6

What should I already know?

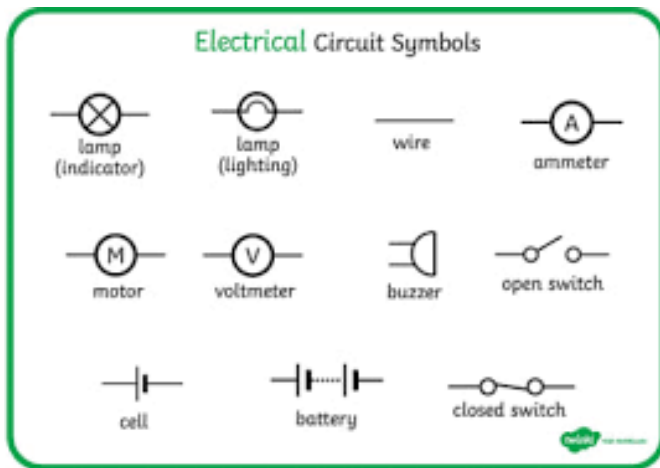
- **Electricity** is a form of **energy** that can be carried by wires and is used for heating and lighting, and to provide **power** for **devices**.
- **Sources** of light and sound may need **electricity** to work.
- Where **electricity** comes from
- Which **appliances** need **electricity**
- What a **circuit** is, the **components** of a circuit and how it works.
- What **electrical conductors** and **insulators** are.
- What happens when a **switch** is added to a circuit.
- What **forces** and **resistance** are.

What I should know by the end of the unit.

- How adding more cells affects the brightness of a bulb or the sound of a buzzer.
- How to draw circuit diagrams.
- How to explain why circuits do or don't work.



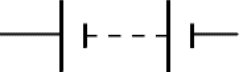

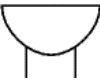
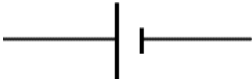


Key knowledge

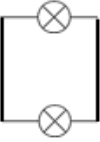
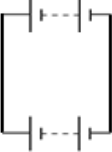
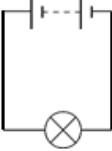


- Electricity is a form of energy that can be created at power stations using oil, gas or coal and can also be created using wind, solar or water power
- A circuit is made up of a cell connected to one or more component using wires
- Batteries and other components in a circuit have a voltages and are measured in volts (v)
- The higher the voltage, the bigger the push of energy
- A circuit must be complete for the components to work correctly
- Each component has a symbol which is used when producing a circuit diagram. Circuit diagrams are always draw in a rectangular shape.

Vocabulary

ammeter	measures the current in a circuit	energy	the power from sources such as electricity that makes machines work or provides heat
appliance	a device or machine in your home that you use to do a job such as cleaning or cooking . Appliances are often electrical .	fuel	a substance such as coal, oil , or petrol that is burned to provide heat or power
battery	two or more cells that provide the power for a circuit. Outside of science they are known as small devices that provide the power for electrical items such as torches	generate	cause it to begin and develop
bulb	A glass holder containing a wire which gives out light when electricity passes through it.	insulator	a non- conductor of electricity or heat
buzzer	an electrical device that is used to make a buzzing sound	mains	where the supply of water, electricity , or gas enters a building
cell	a single power source for a circuit, two or more cells makes a battery .	motor	a device that uses electricity or fuel to produce
circuit	a complete route which an electric current can flow around	power	power is energy , especially electricity , that is obtained in large quantities from a fuel source and used to operate lights, heating, and machinery
component	the parts that something is made of	resistance	a force which slows down a moving object or vehicle
conductor	a substance that heat or electricity can pass through or along	source	where something comes from
current	a flow of electricity through a wire or circuit	switch	a small control for an electrical device which you use to turn the device on or off
device	an object that has been invented for a particular purpose	voltage	the force of an electric current as measured in volts
electricity	a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices	wires	a long thin piece of metal that is used to fasten things or to carry electric current

Question 1: Write the name for the component that each of these symbols represent.	Start of unit:	End of unit:
		
		
		
		
		
		

Question 2: Which of these circuits will light?	Start of unit:	End of unit:
		
		
		

	Start of unit	End of unit
Question 3: Give two possible reasons that a circuit will not work.		
Question 4: Explain what will happen if another bulb is added to a working circuit		
Question 5: Explain what will happen if another battery is added to a circuit with a bulb		
Question 6: What is an electrical conductor?		
Question 7:		

Question 7: Imagine you only have this equipment. Draw a circuit using circuit symbols featuring this equipment.	Start of unit:	End of unit:
