

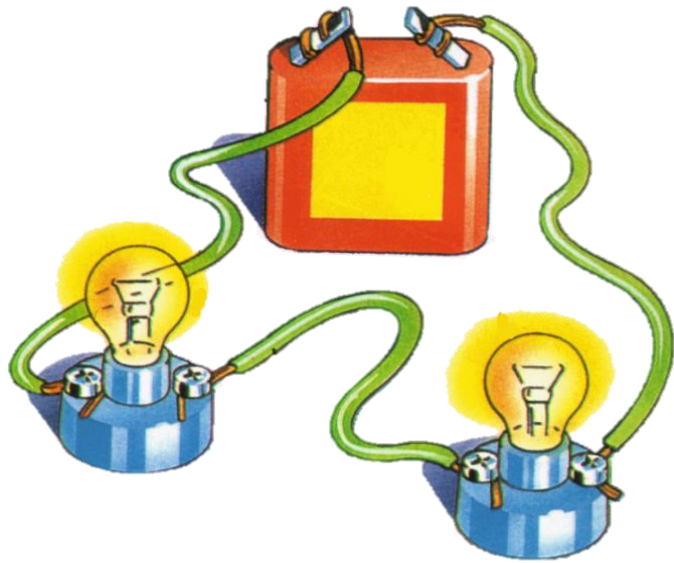


ELECTRICITY

KNOWLEDGE ORGANISER



What you should already know...



- Electricity is a type of energy.
- It is used to power lots of different things, including many items that we use in everyday life.
- Electricity can flow through wires and cables, and can be stored in batteries (sometimes called cells).
- Electricity can flow in simple series electrical circuits.
- Some materials conduct electricity, and others do not (insulators).

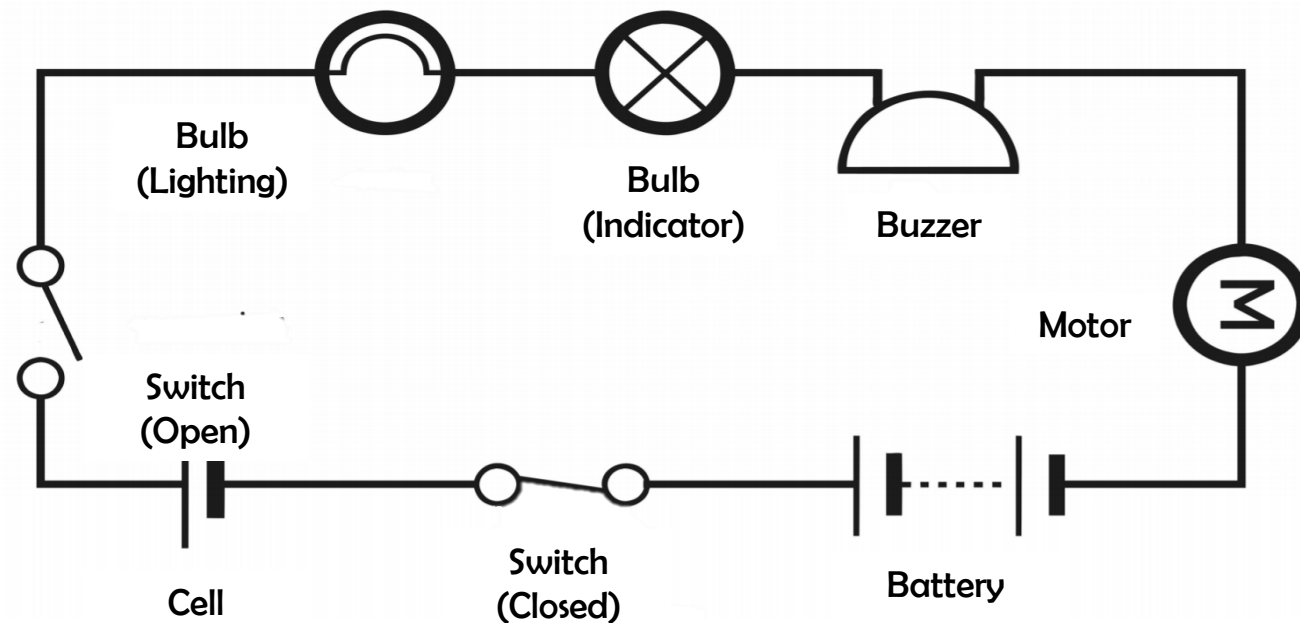
Electricity Safety



- If electricity is not used safely, it can be highly dangerous. When using electricity, make sure that you:
- Make sure that wires are placed in safe locations, where people cannot trip over them;
 - Never stick your fingers or objects into a plug socket;
 - Never use frayed wires – don't pull wires;
 - Ensure that your hands are dry when you are near sockets/ electrical equipment;
 - Do not overload a plug socket;
 - Always get broken appliances and plugs fixed.

Circuit Diagrams

When drawing electrical circuits, you should use the standard symbols to show the different components.



Key objectives and facts to learn:

- To explain the importance of the major discoveries in electricity**
Benjamin Franklin discovered that lightning was electrical and was the first person to store electricity. Alessandro Volta invented the first battery. Electricity changed people's daily lives (children should be able to give examples such as washing machines etc).
- To recognise and draw scientific circuit symbols**
Know the symbols for relevant components from the vocabulary list.
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Know the symbols for relevant components from the vocabulary list.
- To observe and explain the effects of differing volts in a circuit**
Increasing the voltage in a circuit will increase the brightness of a bulb and the volume of a buzzer.
- To plan an investigation and understand variations in how components function**
When planning investigations, only one variable can be changed. When making predictions, we must use scientific knowledge as a basis.
- To research a famous scientist**
To understand that scientists do not work alone, but use the findings and research of those who have gone before to make new discoveries.

Key Electrical Vocabulary

Switch Bulb Voltage Motor Battery Buzzer Cell Voltmeter Ammeter Wire