



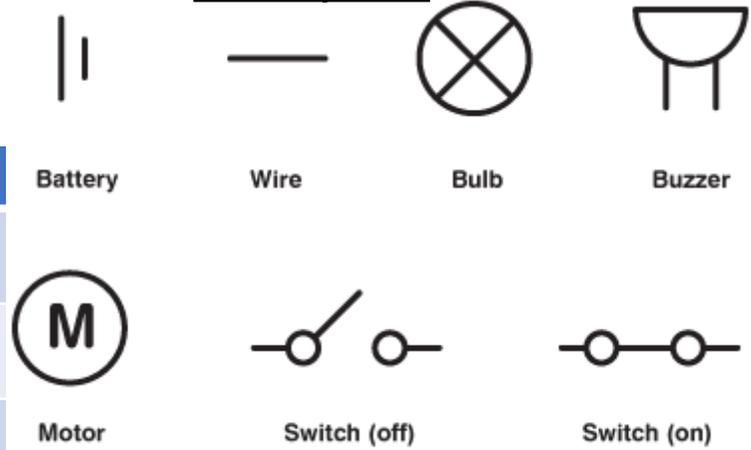
Science Knowledge Organiser – Electricity

Year 3/4

Topic Specific Vocabulary

Vocabulary	Information
Electricity	Electricity is a type of energy that can power certain things, e.g. washing machines, kettles, televisions
Circuit	A (closed) circuit allows electricity to travel around, giving power to something for it to be turned on.
Conductor	A conductor is a type of material that allows electricity to pass/transmit through it .
Insulator	An insulator is a type of material that does not allow electricity to pass through it.
Electrical appliance	An electrical appliance is a piece of equipment that uses electricity to perform a function. They cannot perform this function without electricity, e.g. vacuum cleaner, Xbox, refrigerator.

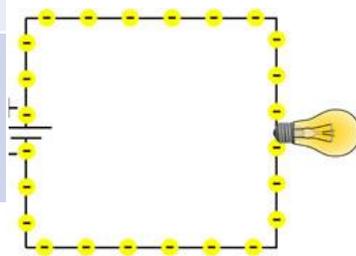
Circuit Symbols



Conductors and Insulators

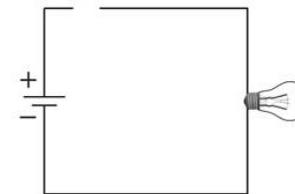
Good conductors	Insulators
Metals: • Copper • Silver • Gold • Iron • Steel • Aluminium • Tap water	• Rubber • Wood • Plastic • Glass • Paper • Cotton • Polystyrene • Fabric

Types of Circuits



closed circuit

When a circuit is **open** (there is a break in the circuit) electricity cannot flow around the circuit, meaning that whatever is being powered will not turn on.



Open Circuit

When a circuit is **closed** electricity can flow around the circuit, meaning that whatever is being powered can turn on.

How to be safe around electricity:

1. Never stick metal into anything that runs on electricity e.g. toaster or plugs.
2. Don't overload plug sockets with too many appliances.
3. Never mix water and electricity – keep appliances out of the bathroom and never touch anything electric when you are wet.
4. Stay away from power lines (especially damaged ones), transformers and power stations.

Planning an Experiment Vocabulary

Vocabulary	Definition
Conclusion	What we have learned from our experiment.
Equipment	Items used to conduct an experiment.
Fair Test	Keeping everything but one variable the same.
Method	The steps we take to conduct our experiment.
Prediction	What we think our experiment will tell us.
Results	The data obtained by the experiment.
Variables	The things that are changed in the experiment.



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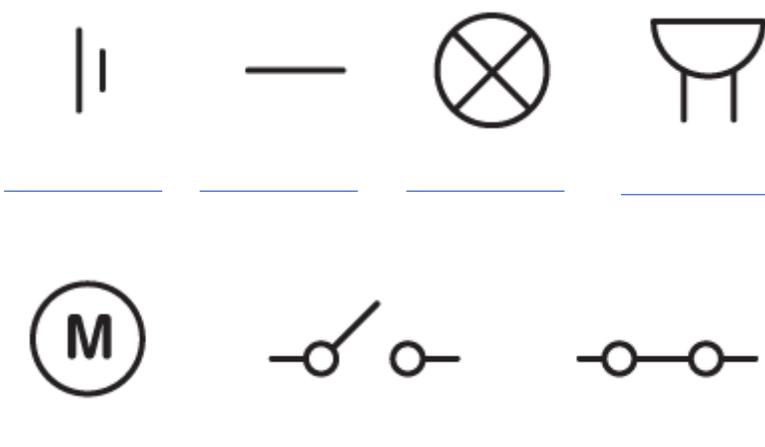
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Planning an Experiment Vocabulary

Vocabulary	Definition
	What we have learned from our experiment.
	Items used to conduct an experiment.
	Keeping everything but one variable the same.
	The steps we take to conduct our experiment.
	What we think our experiment will tell us.
	The date obtained by the experiment.
	The things that are changed in the experiment.

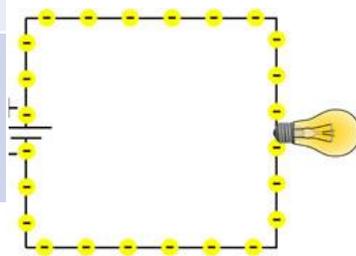
Circuit Symbols



Conductors and Insulators

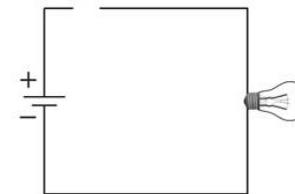
Good conductors	Insulators

Types of Circuits



closed circuit

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Open Circuit

When a circuit is _____ electricity can flow around the circuit, meaning that whatever is being powered can turn on.

How to be safe around electricity:

1. Never _____.
2. Don't _____.
3. Never _____.
4. Stay _____.