







# YEAR 4 - ELECTRICITY

## Conductors and insulators

Related vocabulary	Definition
<b>electricity</b>	a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
<b>insulators</b>	a non-conductor of electricity or heat
<b>conductors</b>	a substance that heat or electricity can pass through or along
<b>appliances</b>	a device or machine in your home that you use to do a job such as cleaning or cooking. Appliances are often electrical.
<b>battery</b>	A device consisting of one or more cells
<b>component</b>	the parts that something is made of
<b>current</b>	a flow of electricity through a wire or circuit
<b>energy</b>	the power from sources such as electricity that makes machines work or provides heat
<b>cell</b>	a synonym for battery
<b>mains</b>	where the supply of water, electricity, or How does a gas enters a building
<b>electric circuit</b>	A complete path that an electric current can flow around. It flows from the battery, through wires and devices before returning to the battery. If the circuit is not complete the electric current cannot flow

	<b>Good Conductors</b> allow energy to pass through	<b>Insulators</b> stop or slow down energy
<b>Electrical</b>	Metals e.g. copper, silver, gold, iron, steel, aluminum tap water 	rubber wood plastic glass paper cotton distilled water polystyrene fabric 
<b>Thermal</b>	Metals e.g. copper, silver, gold, iron, steel, aluminum 	plastic wood rubber fabric polystyrene 

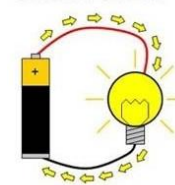
### ELECTRICITY SAFETY!

- Obey warning signs and never put yourself or others in danger
- Stay away from power stations no matter the situation
- Never put your fingers or anything into a plug socket
- Keep all metal objects such as cutlery out of toasters
- If you see a broken wire, don't touch it and tell a parent!
- Keep water away from electricals, such as hairdryers
- Do not buy or use a fake charger.
- Never fly kites near power lines, always find open space
- Never leave anything plugged in and charging while you sleep!
- When removing a plug, turn it off and don't pull on the cord!

Some appliances use batteries and some use mains electricity. Batteries can vary greatly in size, shape and power.



**Closed circuit**



**Open circuit**

