Knowledge Mat: Science

Electricity

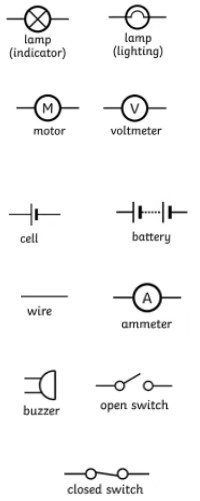
How does this link to GROW?

O: To gain outstanding knowledge and skills, so we can know more and remember more about changes of materials.

Subject Specific Vocabulary

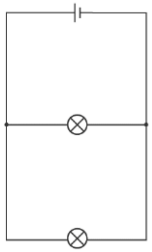
circuit	a complete path which allows electricity to flow through.
current	the rate of electricity flowing through a circuit.
voltage	the force that pushes electricity around a circuit.
resistor	a component that reduces electric current flow.
insulator	materials that do not allow electricity to pass through them easily.
conductor	materials that allow electricity to pass through them easily

Key Knowledge:

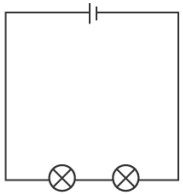


Electricity is an **energy**. This energy can be used to power electrical items such as toasters, kettles, cookers, televisions and computer tablets. Electrical energy is caused by **electrons** (the particles in atoms) moving about to make a **current**.

Electric circuits can be series or parallel. An ammeter measures current and a voltmeter measures a potential difference. Some materials have low resistance and are conductors; others are insulators.

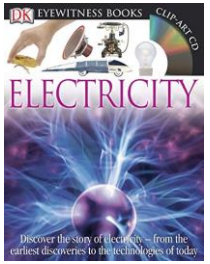


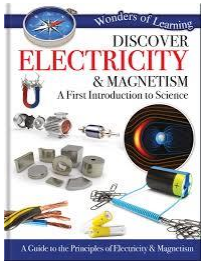
A **parallel circuit** contains multiple pathways, or branches. Each device in a parallel circuit is on a separate branch. The current flowing through a parallel circuit divides as it reaches each branch.



In **a series circuit**, if a lamp breaks or a component is disconnected, the circuit is broken, and all the components stop working.

Books you might like:





What I've learnt previously:

I have learned how to construct a simple electrical circuit and identify and name the basic parts of it. I also know what insulators and conductors are.

This will help me to:

Construct and draw (using the correct scientific symbols) parallel and series circuits. I will also be able to use my knowledge of insulators to explain how variable resistors can work like a switch.