

# electricity and magnetism

## Vocabulary

Word	Definition	Picture/Example
Electricity	A type of energy where small particles called electrons move through a device	
Energy	The ability to do work	- Giving energy to my toaster will allow it to toast my bread
Matter	All matter is made of tiny particles called 'atoms'	
Atoms	Atoms are made up of even smaller particles called protons, neutrons and electrons	
Protons	Particles with a positive charge found in the centre (nucleus) of the atom	
Electron	Part of an atom, particles smaller than protons that have a negative charge that move around the outside of the nucleus	
Neutron	Particles with neither a positive or negative charge found in the nucleus	
Static Electricity	Is the buildup of a stationary negative electric charge (electrons) on the surface of an object	

Current	Flow of electricity	
Battery	A device used for generating electricity through a electrochemical reaction	
Filament	Very fine wire	
Fuse	A safety device used in a circuit to prevent overloading. It is a thin piece of wire, which will burn up if a large electric current goes through it causing an open circuit. A fuse must be replaced when it is blown.	
Insulator	Material that electricity has a hard time flowing though	
Conductor	Anything an electric current can pass through easily	
Circuit	A complete path of electric current	
Switch	A device used to control to flow of electricity	
Watt	Is the unit that is used to measure power	

A Simple Circuit	Consists of a batter (power source), a wire (conductor), an electrical device (load), and a switch (control) connected to form a closed circuit	
A Series Circuit	One path (loop) for electricity through all loads. If one blub or battery is disconnected, the circuit will not work	
A Parallel circuit	Provides more than one path for the electricity to flow	
Power	Is the rate at which work is done. It is measured in watts.	
A Terminal	Is the place where electricity enters or leaves an electrical component (battery).	
Voltage	Is a measure of the amount of electrical energy supplied to each charge	
Charge	A given quantity of electricity	
Open Circuit	An incomplete path, electricity cannot cross the break I the circuit	
Closed Circuit	Where the current flows from the battery through an conductor, a load and back to the battery	
Insulated wire	Wire covered by plastic covering	

Load	Electrical device	
Short Circuit	Where there is a 'short cut' for the electrons to avoid passing through the load	