










Knowledge Organiser Year 45 Science: Electricity

Tier 3 Vocabulary	
Electricity	The flow of an electric current through a material, e.g. from a power source through wires to an appliance.
Appliance	A piece of equipment or a device designed to perform a particular job, such as a washing machine or fridge.
Cell/Battery	A device that stores electrical energy as a chemical. A cell is a single unit. A battery is a collection of cells.
Circuit	A pathway that electricity can flow around, based around wires and a power supply.
Components	Parts of a circuit.
Mains electricity	Electricity supplied through wires to a building.
Mains powered	Using mains electricity (from a socket).
Battery powered	Using electrical energy from a battery.
Conductor	A conductor of electricity is a material that will allow electricity to flow through it.
Insulator	Materials that are electrical insulators do not allow electricity to flow through them.
Current	The amount of electricity flowing around circuit.

Components (parts) vocabulary		
Cell	Scientific word for battery.	
Bulb	Lights up in a complete circuit.	
Buzzer	Makes a noise in a complete circuit.	
Wires	Used to connect the different components in the circuit together.	
Motor	Produces movement in a complete circuit.	
Switch	Used to turn other components in the circuit on or off.	



Benjamin Franklin is credited for discovering electricity in the 1700s with his kite experiment, in which he flew a kite with a metal key tied to it during a thunderstorm

Types of circuits					
Complete Circuit Electricity can flow. The components will work.		Incomplete Circuit There is a break in the circuit that prevents the electricity from flowing. The components will not work.		Series Circuit A circuit where the components are connected in a loop. Electricity flows through each component in a single pathway.	

A basic understanding of what electricity is, how it is generated and what a circuit is – Y1/2