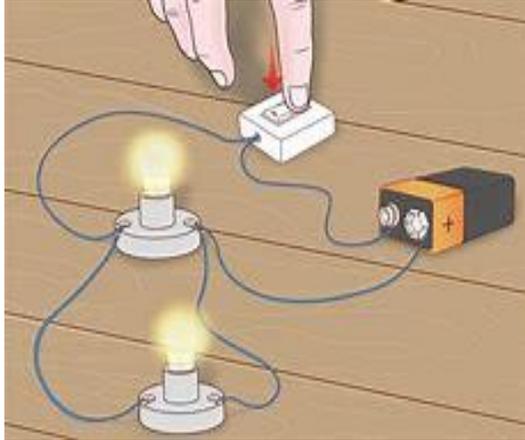


Year 4: Electricity Knowledge Mat

Subject Specific Vocabulary		Electrical symbols	Sticky Knowledge about Electricity	
conductor	Some materials let electricity pass through them easily. These materials are known as electrical conductors.		<input type="checkbox"/> Electricity travels at the speed of light. That's more than 186,000 miles per second!	
insulator	Plastic, wood, glass and rubber are good electrical insulators.		<input type="checkbox"/> Electricity comes from the power station, the wind, the sun, water and even an animal's poo!	
electrical appliance	a device that uses electricity to perform a function		<input type="checkbox"/> Electricity is a type of energy that build up in one place (static), or flow from one place to another (current electricity).	
wire	It is made of a metal that easily conducts electricity, usually copper, in a plastic sheath called an insulator		<input type="checkbox"/> Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.	
crocodile clips	A crocodile clip is a sprung metal clip with long, serrated jaws which is used for creating a temporary electrical connection.		Important facts to know by the end of the electricity topic: <ul style="list-style-type: none"> • Know that the brightness of a bulb is associated with the voltage. • Compare and give reasons for variations in how components function. • Use recognised symbols when representing a simple circuit in a diagram. • Construct simple series circuits. • Be able to answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors. 	<input type="checkbox"/> A popular way of generating electricity is through hydropower. This is a process where electricity is made by water which spins turbines attached to generators.
buzzer	A device used to convert electricity into a buzzing sound.			<input type="checkbox"/> A bolt of lightning can measure up to 3,000,000 volts, and it lasts less than one second!
bulb	A device used to convert electricity into light.			<input type="checkbox"/> Electric fields work in a similar way to gravity. Whereas gravity always attracts, electric fields can either attract or repulse.
battery/cell	A container consisting of one or more cells, in which chemical energy is converted into electricity and used as a source of power. Also known as the cell.			
switch	An electrical component that can "make" or "break" an electrical circuit.			
series circuits	A series circuit is one that has more than one resistor, but only one path through which the electricity (electrons) flows.			