








Year 6: 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.	Component	Symbol	<p><input type="checkbox"/> Electricity travels at the speed of light. That's more than 186,000 miles per second!</p> <p><input type="checkbox"/> Electricity comes from the power station, the wind, the sun, water and even an animal's poo!</p> <p><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).</p> <p><input type="checkbox"/> Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.</p> <p><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.</p> <p><input type="checkbox"/> A bolt of lightning can measure up to 3,000,000 volts, and it lasts less than one second!</p> <p><input type="checkbox"/> Electric fields work in a similar way to gravity. Whereas gravity always attracts, electric fields can either attract or repulse.</p>	
insulator	Plastic, wood, glass and rubber are good electrical insulators.	Cell (Battery)			Provides electrical energy
socket	A socket is a safe device to plug your electrical items into at home. Almost every room at home will have at least one socket.	Power supply			Alternative to using cells
series circuits	A series circuit is one that has more than one resistor, but only one path through which the electricity (electrons) flows.	Wire			Allows current to travel
cells	An electrical cell is a device that is used to generate electricity, or one that is used to make chemical reactions possible by applying electricity.	Bulb/light			Converts electrical energy into heat and light
volts	Voltage is an electrical potential difference, the difference in electric potential between two places.	Motor			Converts electrical energy into movement energy
generator	A machine that converts energy into electricity.	Buzzer			Converts electrical energy into sound energy
turbine	A machine that creates continuous power in which a wheel, or something similar, moves round and round by fast moving water, steam, gas or air.	Switch			Allows circuit to be opened or closed
fuses	These are safety devices. A fuse is a strip of wire that melts and breaks an electric circuit if it goes over a safe level.	<p>Important facts to know by the end of the electricity topic:</p> <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. 			
Thomas Edison	He was a great inventor that came up with a way of making the electric light bulb accessible for homes, industry and outside in the streets.				