## Year 6: Electricity Knowledge Mat

Subject Specific Vocabulary Electrical symbols				al symbols	Sticky Knowledge	
conductor	Some materials let electricity pass	Component	Symbol	Purpose	about Electricity	
Conductor	through them easily. These materials are known as electrical conductors.	Cell (Battery)	$\dashv$ $\vdash$	Provides electrical energy	☐ 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.	Power supply	0 0	Alternative to using cells		
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.	Wire		Allows current to travel	☐ Electricity comes from the power station, the wind, the sun, water and even an animal's poo!	
		Bulb/light		Converts electrical energy into heat and light		
series circuits	A series circuit is one that has more than one resistor, but only one path through	Motor	-M-	Converts electrical energy into movement energy	Electricity is a type of energy that build up in one place (static), or flow from one place to another (current electricity).	
colle	which the electricity (electrons) flows.  An electrical cell is a device that is used	Buzzer	-Cl	Converts electrical energy into sound energy		
cells	to generate electricity, or one that is used to make chemical reactions possible by applying electricity.	Important facts to know by the end of the electricity topic:			<ul> <li>Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boils water and creates steam.</li> <li>A popular way of generating electricity is through hydropower. This is a process</li> </ul>	
volts	Voltage is an electrical potential difference, the difference in electric potential between two places.					
generator	A machine that converts energy into electricity.	<ul> <li>Know that the brightness of a bulb is associated with the voltage.</li> <li>Compare and give reasons for variations in how components function.</li> <li>Use recognised symbols when representing a simple circuit in a</li> </ul>				
turbine	A machine that creates continuous power in which a wheel, or something similar, moves round and round by fast				where electricity is made by water which spins turbines attached to generators.	
	moving water, steam, gas or air.  These are safety devices. A fuse is a strip				☐ A bolt of lightning can measure up to 3,000,000 volts,	
fuses	of wire that melts and breaks an electric circuit if it goes over a safe level.	diagram.  Construct simple series circuits.			and it lasts less than one second!	
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.	<ul> <li>Be able to answer questions about what happens when they try different components, for example, switches, bulbs, buzzers and motors.</li> </ul>			☐ Electric fields work in a similar way to gravity. Whereas gravity always attracts, electric fields can either attract or repulse.	

