











Year 4– Autumn 1 – What is there was no electricity in the morning?

<u>Key Vocabulary</u>		<u>Prior learning</u>	<u>Sticky Knowledge</u>
Circuit 	An electrical circuit is a completed path through which an electrical current flows.	We know we use electricity in our daily lives.	Electricity can be generated by from power stations, wind, the sun, water and even animal poo!
Battery 	A battery is a device that stores chemical energy and makes it available in an electrical form.	We know there are dangers involved when using electricity.	Electricity is a naturally occurring energy source i.e. lightning.
Insulators 	An insulator is a material whose internal electric charges do not flow freely - does not allow electricity through.	<u>Knowledge and Assessment:</u> In this unit children will identify common appliances that run on battery and mains electricity, and name some appliances that do the same job but are operated manually. They will learn the names and functions of simple electrical components including batteries, bulbs, buzzers, wires and switches. They will understand the need for a complete loop for a bulb to light or a buzzer to buzz, and will construct simple circuits to light a bulb and make a buzzer buzz. They will then insert a switch into the circuit to turn the bulb/buzzer on and off.	A power station is a place where electricity is created and sent to our homes.
Conductors 	A conductor is an object or type of material that allows the flow of an electrical current in one or more directions		Electricity travels at the speed of light, which is more than 186,000 miles per hour.
Cells 	An electrical cell is a device that is used to generate electricity.		One flash of lightning could power 1000 houses for a whole year.
Socket 	Sockets allow electrical equipment to be connected to the alternating current (AC) power supply in buildings and at other sites.	<u>Working Scientifically</u> , children will raise questions related to electrical insulation and conductivity. They will plan and carry out investigations, make predictions, record results in appropriate ways and draw conclusions. They will apply knowledge about electrical circuits and conductors to design and make a switch.	When an electric charge builds up on the surface of an object it makes static electricity. This is why we sometimes have a small electric shock.
Appliance 	An electrical appliance is a device that uses electricity to perform a function.		Thomas Edison was a very famous inventor who helped us make the most of electricity from bulbs to fuses.
Generate 	To produce or create		An electrical conductor allows electricity to flow through it whereas an electrical insulator doesn't allow it to flow through.
Fossil fuels 	A natural fuel such as coal or oil formed in the past from the remains of living organisms.		Burning fossil fuels is the most common form of generating electricity even though it is a non-renewable method.



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