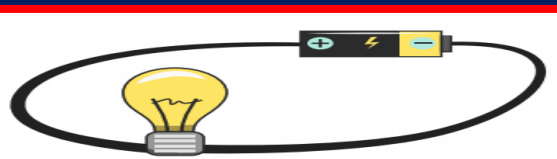
Year Four Electricity Summer Term 2

Learning Sequence:

- Learn the term 'appliance' and make a list of all the things used in the house or at school that are electrical appliances.
- Sort appliances into mains powered or battery powered.
- Name the electrical components needed to make a simple circuit and make own simple circuit to light the bulb.
- Identify whether a circuit will work or not and say what is wrong with that circuit.
- Explore different materials to identify which ones are conductors and which are insulators.
- Find out how switches work and add a switch into a simple series circuit.

Key Facts and Knowledge:

- Lightning and static electricity are examples of electricity which occurs naturally.
- Electricity to power our **appliances** needs to be made.
- Many everyday appliances rely on energy to work. This might be by being plugged into a socket (**mains electricity**) or from **battery power**.
- Thomas Edison invented the first incandescent light in 1879.
- Electricity can only flow around a complete **circuit** without any gaps.



Final Outcome: To make a complete series circuit including a bulb, battery, buzzer and switch.

Electricity	The flow of an electric current or charge through a material. From a power source through wires to an appliance.
Generate	To make or produce.
Renewable	A source of electricity that will not run out. This includes solar, hydro and wind.
Non-renewable	The energy source will eventually run out. These include fossil fuels like coal, oil and natural gas.
Appliances	A piece of equipment or device designed to perform a particular job. A kettle or tumble dryer.
Battery	A device that stores electrical energy as a chemical.

Key Skills:

- Identify common appliances that run on electricity.
- Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.
- Recognise some common conductors and insulators, and associate metals with being good conductors.
- Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery.
- Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.
- Use scientific evidence to answer questions or to support their findings.
- Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Circuit	A pathway that electricity can flow round including wires, a power supply, bulbs, buzzers and switches.
Electrons	Small particles with an electric charge.