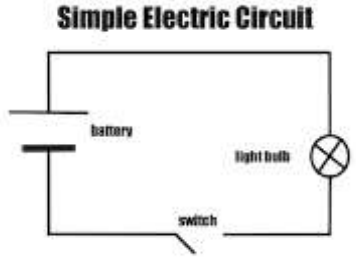
What should I already know?

- Electricity is a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for devices.
- Sources of light and sound may need electricity to work.

Knowledge

- 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.
- 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.
- Recognise some common conductors and insulators, and associate metals with being good conductors.
- Electricity can be dangerous.
- Electricity sources can be mains or battery.
- Batteries 'push' electricity round a circuit and can make bulbs, buzzers and motors work.
- Faults in circuits can be found by methodically testing connections.



Year 4– Autumn Term – Electricity (Science)
Intention: In Science I will…

Scientific Skills

- Create/invent/ design something based on what they have found out applying both research and/or practical experiences.
- Make a visual representation or a model of something to represent something they have seen or a process that is difficult to see.
- Develop simple descriptions from their observations
- Use relevant scientific language to discuss their ideas.
- Choose/select a relevant question that can be answered [by research or experiment/test].
- Investigate the effect of something on something else.
- Recognise when a test is necessary.
- Understand precautions for working safely.
- Record findings using simple scientific language and vocabulary, including discussions, oral and written explanations, notes, drawings (annotated), pictorial representations, labelled diagrams, tables and bar charts [where intervals and ranges agreed through discussion], displays or presentations.
- Reporting on findings from enquiries [beginning to identify the scientific facts in their data].
- Use results to suggest improvements, new questions and predictions for setting up further tests
- Make a visual representation or a model of something to represent something they have seen or a process that is difficult to see.

Vocabulary

Switch	a power source. A battery is a container filled with chemicals that produce electricity.
Insulator	a material that does not allow electricity to pass through it.
Conductor	a device which can control the flow of electricity.
Battery	a material that allows electricity to pass through easily.
Circuit	the source of electrical power, can be a battery or mains.
Mains	a path that allows electricity to flow through.
Power source	an electrical power source found in homes and other buildings.