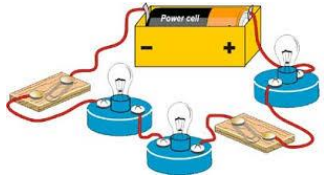
Year 4		
Electricity	Science	Term: Summer

Entry/exit point	Researching a famous scientist

Science – Key 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 a lamp will light in a simple series circuit, based on whether 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 a lamp lights in a simple series circuit
- Recognise some common conductors and insulators, and associate metals with being good conductors

Science- working scientifically

- Ask relevant questions and use different types of scientific enquiries to answer them
- Set up simple practical enquiries, comparative, and fair tests
- Know which are control, dependent and independent variables in a fair test
- Identify one or more control variables from those provided when conducting a fair test
- Make observations and take increasingly accurate measurements using standard units (e.g., to a decimal point)
- Use a range of equipment, including thermometers and data loggers
- Gather, record, classify and present data in a variety of ways to help in answering questions
- Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

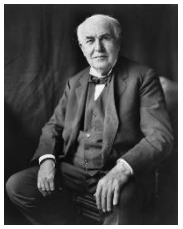
SCHOOL KEY DRIVERS

Language	Opportunities	Diversity
Electricity appliance, circuit, series circuit, charge, cell, wire, bulb, switch, buzzer, loop, battery, open circuit, closed circuit, conductor, insulator, components, electron, current, static electricity, emit **Working scientifically** fair test, comparative, accurate, standard units, thermometer, data logger, gather, record, classify, present, data, tables, bar graph, classification keys, presentation, explain, conclusion, prediction, differences, similarities, theory, dependent variable, independent variable, results	Possibility of being an electrician Job opportunities working with electricity	Gender – job opportunities for both men and women – stereotypical

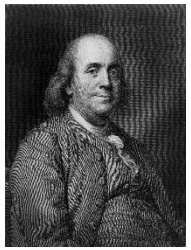
Scientists

Michael Faraday (electromagnetism)

Thomas Edison (inventor)



Nikola Tesla (engineer)



Benjamin Franklin (inventor)

Links to prior learning and next steps

Year 2:

- to identify common appliances that run on electricity. Construct a simple series electrical circuit, identifying and naming its basic parts.
- Identify whether or not a lamp will light in a simple series circuit.

Links to prior learning and next steps

Maths: data handling