



Science Topic: Electricity (Circuits)

Year: 4 **Term:** Summer 1

Key Knowledge/Content:

- A source of electricity (mains or battery) is needed for electrical devices to work.
- Electricity sources push electricity round a circuit.
- More batteries will push the electricity round the circuit faster.
- Devices work harder when more electricity goes through them.
- A complete circuit is needed for electricity to flow and devices to work.

Scientist Focus:

Garrett Morgan (Inventor)

Known for inventing things from electricity such as an improved sewing machine and traffic lights.

Links to:

Prior learning:

To know materials have different properties, making them useful for a specific purpose.

Future learning:

To identify which materials are electrical conductors or insulators.

Key vocabulary with definition:

Prior vocabulary:

- Energy- The ability to do work, normally throughout movement of particles.

New vocabulary:

- Electricity- The flow of energy from a power source.
- Electrical current- The flow of electricity.
- Components- Parts in a circuit.
- Appliances- An object that uses electricity to function.
- Battery- A power source that can be moved.
- Mains- A power source that connects to a larger electrical network.
- Crocodile clips- Metal clip at the end of wires.
- Switch- Can be turned on or off.
- Buzzer- A component that makes a buzzing sound.
- Wires
- Bulb
- Battery holder

By the end of this unit

All children can: identify components in a circuit and **set up** a simple circuit.

Most children can: make predictions about whether a circuit will work or not, based on components, and identify whether appliances work by battery or the mains.

Some children can: change components in a circuit to investigate changes and draw conclusions about electricity based on evidence gathered.

Background understanding for teachers and parents:

This unit will introduce electricity using different components to form circuits. Children will investigate changes that occur when parts of a circuit are changed, making predictions and drawing conclusions.

Curriculum Driver (one):

Communication

Evidence outcome:

Verbalised predictions and explain what changes have occurred when investigating circuits.