Science Focus:	Year Group:	Spring Term
Electricity	4	

Key Knowledge:

What is electricity?

- **Electricity** is created by **generators** which can be powered by gas, coal, oil, wind or solar.
- Electrical energy can be converted into other types of energy such as light, heat or sound.

- **Electricity** is dangerous, so be careful when using electrical **appliances**.

What are common appliances that run on electricity?

- Any **appliance** that needs to be plugged in and run on **electricity**.

Examples: TV, Computer, Microwave, Lights.

What is a circuit?

- **Electricity** can flow through the components in a complete electrical **circuit**.
- A **circuit** always needs a power source, such as a **battery**, with wires connected to both the positive (+) and negative (-) end.
- A **circuit** can also contain other electrical components such as buzzers, motors, bulbs etc.

What are conductors and Insulators?

- Conductors are materials that let **electricity** pass through them. Examples are iron, copper and steel.
- Insulators are materials that do not allow **electricity** to pass through them. Examples are wood, glass, plastic and rubber.

Possible Experiments:

Set up circuits and predict whether the bulb will light.

Set up a circuit to test materials that are conductors or insulators (Potato circuit).

Key Vocabulary:

Electricity – The flow of an electric current or charge through a material.

Generate – To make or produce.

Renewable – A source of electricity that will not run out.

Non–renewable – This source of energy will eventually run out and will not longer be able to be used to make electricity.

Appliances – A piece of equipment or device powered by electricity.

Battery – A device that stores electrical energy as a chemical.

Circuit – A pathway that electricity can flow around. It includes wires and a power supply. It may also include bulbs, switches or buzzers.

Electrons – Small particles with an electric charge.

Diagrams and Symbols: