

Topic: Electricity

Term:

Year 4

Duration: weeks



## Eden Park Primary School Knowledge Organiser



### Prior Knowledge

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses (Yr2)
- Observe how magnets attract or repel each other and attract some materials and not others (Yr3)
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials (Yr3)

### **The Powerful Knowledge we will take away from this science topic:**

- 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.

Word	Meaning
Electricity	A type of energy
Electrical device	Such as TVs, irons etc that need electricity to work.
Mains	Electricity from the main power station to your building
Components	Parts of a circuit – bulb, wire, switch, motor, cell, battery
Conductor	Permits electricity to pass through. Copper, iron and steel.
Insulator	Does not allow electricity to pass through
Circuit	The path that carries the electrical current
Positive/negative	Charges – made by protons and neutrons in atoms.

### Investigation

Making circuits and switch.

Testing materials for conductivity.

### Working scientifically

Ask relevant questions

Plan different types of scientific enquiries to answer questions

Record findings using simple scientific language, drawings, diagrams, keys, bar charts and tables.

Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.