Electricity

<u>Carclaze Primary School</u>

Year 4



Science Knowledge Organiser

Prior learning to reactivate

This is the first time this subject is taught within the Primary Curriculum.

- Electricity is used to power things.
- Electricity is needed for lights to work.

Key learning

Common appliances run on electricity.

Construct a simple circuit and name the basic parts.

A simple circuit is a complete loop with a battery that lights a bulb.

Switches open and close circuits.

Conductors allow electricity to pass through and insulators do not allow electricity to pass through.

Metals are good conductors of electricity.

| Key vocabulary | | |
|----------------|--|--|
| Circuit | A complete path around which electricity can flow | |
| Conductor | Substances that an electric charge can pass through without difficulty | |
| Insulator | Substances that an electric charge cannot pass through easily. | |
| Cell | A device used to generate electricity, e.g. a battery | |
| Break | A break in the circuit prevents the current of electricity flowing. | |
| Switches | Turns the electricity on or off, stopping the electrical current from flowing | |
| Bulb | Uses the electrical energy to light up | |

| Electricity Carclaze Primary School Year Science Knowledge Organiser Science Knowledge Organiser | 4 |
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| SCIENTIFIC SKILLS | |
| By the end of the <u>year</u> , children should be able to | |
| Ask their own questions relating to the topic | |
| Make predictions about the outcomes of investigations | |
| Set up simple practical investigations | |
| • Be able to identify simple ways in which a fair test can be created | |
| • Make simple observations, including through the use of a range of recording/measurement equipment | |
| • Gather and record data | |
| Present data in a variety of ways, including diagrams, charts, tables, and graphs | |
| Draw simple conclusions on results and link back to the theory discussed | |
| Suggest improvements for further investigations | |
| Opportunities for scientific enquiry within the unit: | |
| Observing patterns e.g. bulbs get brighter the more cells added. | |
| • Investigate which materials can and cannot be used to connect across a gap in a circuit and explain why. | |

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