



Edenfield C E Primary School

Medium Term Plan - Sequence and Progression

Subject: Science

Unit: Year 4 - Electricity

Key Vocabulary

- Circuit components: cell (battery), wire, bulb, bulb holder, buzzer, motor, switch (open/closed), circuit, electrical conductor, electrical insulator, connection, component, break.
- Electrical equipment: devices, appliances, mains electricity, safety.
- Connectivity terms: connection, mains, wire, break.
- Common materials: metal, wood, plastic, etc.
- Expressions for making suggestions: if, might, could.
- Comparative expressions: brighter, less bright (bulbs); faster, slower (motors), etc.

Lesson Sequence

1. To identify appliances that run on electricity. – Check that the children understand what electricity is and what it powers.
2. To be aware that electricity can be dangerous – Discuss electrical safety and create posters.
3. To construct simple circuits – Children to make simple circuits and name the components.
4. To investigate if a lamp will light – Make different circuits. Can you use more than one bulb? Discuss what the children learn.
5. To investigate switches – Introduce switches and create circuits using them.
6. To test insulators and conductors – Make prediction and test different materials.
7. To create a circuit – Assessment task – Children to make a circuit for a game.
- 8.
- 9.

By the end of the unit pupil will know:

- 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.
- Know that electricity can be dangerous.

Skills

Working Scientifically

- By observing patterns, for example, that bulbs get brighter if more cells are added, that metals tend to be conductors of electricity, and that some materials can and some cannot be used to connect across a gap in a circuit
- By comparing different materials to see if they are insulators or conductors.