



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy



Year Group: Year 3 & 4

Term: Spring 1 (Cycle B)

Topic: Electricity

National Curriculum Links

Pupils in Key Stage Two should be taught to:

- identify common appliances that run on electricity
- construct a simple series electrical circuit, identify and name 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.

Working Scientifically

- ask relevant questions and using different types of scientific enquiries to answer them
- set up simple practical enquiries, comparative and fair tests
- make systematic and careful observations and, where appropriate, take accurate measurements using standard units and a range of equipment
- gather, record, classify and present data in a variety of ways to help in answering questions
- record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identify differences, similarities or changes related to simple scientific ideas and processes
- use straightforward scientific evidence to answer questions or to support their findings.

Prior Learning

- Explore how things work. (Nursery - Electricity)

Future Learning

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. (Y6 - Electricity)

- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. (Y6 - Electricity)
- Use recognised symbols when representing a simple circuit in a diagram. (Y6 - Electricity)

Common Misconceptions

Some children may think:

- electricity flows to bulbs, not through them
- electricity flows out of both ends of a battery
- electricity works by simply coming out of one end of a battery into the component.

Sustainable Development Goals & Catholic Social Teaching

Applied Write Opportunities

Enrichment Opportunities

Assessment Opportunities

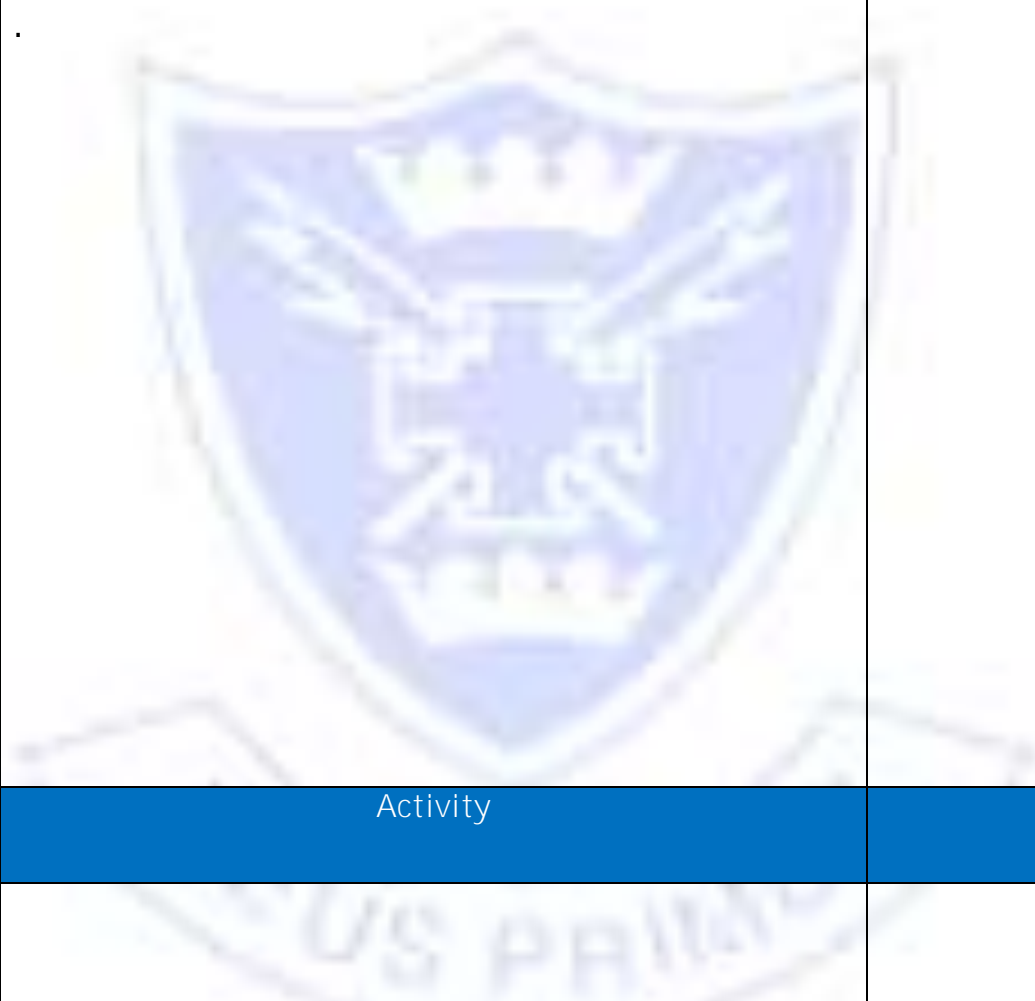
- Can name the components in a circuit
- Can make electric circuits
- Can control a circuit using a switch
- Can name some metals that are conductors
- Can name materials that are insulators

Key Vocabulary

Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Week One</u></p> <p>I can identify electrical appliances and the types of electricity they use.</p>	<p>Firstly, Mind map what is already known about electricity. Encourage children to ask any relevant questions about topic.</p> <p>Intro: Ask children how these items work: light bulb, torch, television etc... Feedback. Ask, where does electricity come from? Show children video clip for how and where electricity comes from. https://www.bbc.co.uk/bitesize/clips/z4spyrd</p> <p>Task 1: Ask children to Identify electrical appliances in the classroom. Ask, is the appliance is using a battery or mains electric? (Write down in books)</p> <p>Task 2: Children to group a range of images for appliances / objects: need main electric, battery or neither. Describe how they need / don't need power.</p> <p>Click on image house and walk through interactive house and find the dangers and discuss how we can stay safe around electrical appliances.</p> <p>TASK 3: Draw lines off image to identify the dangers Explain how it is dangerous and how it can be resolved.</p>	<p>LA/SEN – Children sort pictures of appliances into electric, battery or neither</p> <p>MA/HA – Children write down and group appliances of their choice into battery, electric or neither.</p> <p>TASK 2 Chn draw lines off image to identify the dangers and explain how it is dangerous and how it can be resolved.</p> <p>Challenge - Is electricity harmful to the environment? How could we be more eco-friendly. What are alternative sources of power?</p>

Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Week Two</u></p>		





Knowledge and Skills Objectives	Activity	Differentiation
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<u>Week Four</u>		<u>SEN -</u> <u>LA -</u> <u>MA -</u> <u>HA -</u>
Knowledge and Skills Objectives	Activity	Differentiation
<u>Week Five</u>		<u>MA -</u> <u>HA -</u>
Lesson 5		
Knowledge and Skills Objectives	Activity	Differentiation

