

Electricity: Circuits and Symbols

<p>Aim: Use recognised symbols when representing a simple circuit in a diagram by recognising and drawing scientific circuit symbols accurately.</p> <p>I can recognise and draw scientific circuit symbols.</p>	<p>Success Criteria: I know the scientific symbols for the main parts of a circuit.</p> <p>I can create circuit diagrams using scientific symbols.</p> <p>Key/New Words: Bulb, battery, cell, wires, switch, motor, buzzer, scientific, informal, circuit, diagram.</p>	<p>Resources: Lesson Pack Whiteboards Whiteboard pens</p> <p>Preparation: Interpreting and Drawing Circuit Symbols Activity Sheets - 1 per child Circuit Symbols Memory Cards - 1 per child Scientific Circuit Symbols Mat - as required</p>
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Prior Learning: Children will have learnt the parts of a circuit in the Year 4 Electricity Unit.

Learning Sequence

	Circuits: What is a circuit? What parts do all circuits contain? Can you draw a circuit which includes a bulb? All children draw a circuit containing a bulb on a whiteboard.	
	Circuit Diagram: Reveal a correct circuit diagram. How close is your drawing to this one? What did you miss out? Is there anything about this circuit diagram you don't remember or understand? Address misconceptions and issues that arise.	
	Battery or Cell? State that they will be learning the scientific symbols for parts of a circuit in this lesson. Explain that there are different drawings for 'battery' and 'cell' and highlight the differences between them.	
	Scientific Circuit Symbols: Show children the symbols they would have used in Year 4 and explain that these were informal rather than scientific symbols. On the presentation, children match the informal and scientific symbols used to draw circuit diagrams. Show children the correct symbols.	
	Circuit Symbols Memory Test: Children work in pairs. All circuit symbols are shown on the Lesson Presentation . Children to be given a minute to memorise them. Their partner will select one of the physical Circuit Symbols Memory Cards and ask their partner to draw it. Children take it in turns to test each other.	
	<p>Interpreting and Drawing Circuit Diagrams: Using the differentiated Interpreting and Drawing Circuit Symbols Activity Sheets, children will label parts of a circuit and then convert circuit diagrams using informal pictures into a circuit diagram using scientific circuit symbols.</p> <div> Children use the Scientific Circuit Symbols Mat as support. Children convert circuit diagram pictures using scientific symbols. Children are given the names of the parts of the circuit for the diagrams they will need to draw. </div>	
	Scientific Circuit Symbols Challenge: Children shown Scientific Circuit Symbols on the Lesson Presentation one at a time. Children write their answers on the Scientific Circuit Symbols Challenge Activity Sheet . Children self-mark answers at the end. Check to see which symbols the children struggled with and ensure this is reinforced in future lessons.	

Taskit

Diagramit: Children create a circuit diagram for an electrical appliance using the correct scientific symbols.

Matchit: Children match informal and scientific circuit symbols using the Matching Informal and [Circuit Symbols Memory Cards](#).