



Progression in knowledge

National Curriculum statements in red are from other linked topics.

Electricity

Early learning goal	<p>Communication and Language - Listening, Attention and Understanding</p> <ul style="list-style-type: none"> ● Make comments about what they have heard and ask questions to clarify their understanding. <p>Personal, Social and Emotional Development - Managing Self</p> <ul style="list-style-type: none"> ● Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. <p>Understanding the World - The Natural World</p> <ul style="list-style-type: none"> ● Explore the natural world around them, making observations and drawing pictures of animals and plants. ● Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. ● Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter
Year 1	
Year 2	
Year 3	
Year 4	<ul style="list-style-type: none"> ● 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.
Year 5	

Year 6	<ul style="list-style-type: none">● Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.● 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.● Use recognised symbols when representing a simple circuit in a diagram.
KS3	<ul style="list-style-type: none">● Electric current, measured in amperes, in circuits, series and parallel circuits, currents add where branches meet and current as flow of charge.● Potential difference, measured in volts, battery and bulb ratings; resistance, measured in ohms, as the ratio of potential difference (p.d.) to current.● Differences in resistance between conducting and insulating components (quantitative).● Static electricity.● Pressure waves transferring energy; use for cleaning and physiotherapy by ultra-sound.● Waves transferring information for conversion to electrical signals by microphone.