

Y6 – Electricity

Inspiration Creativity (problem solving)	Partnership with parents Community
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Key Questions <ul style="list-style-type: none"> - How does the voltage in a circuit affect the brightness of a lamp or the volume of a buzzer? - How do component functions vary in circuits (brightness of bulbs, the loudness of buzzers and the on off positions of switches)? - How is simple circuit represented using symbols in a diagram? - How can we use a circuit to solve a problem? 	Working Scientifically <ul style="list-style-type: none"> - plan enquiries, including recognising and controlling variables where necessary. - use appropriate techniques, apparatus and materials during fieldwork and laboratory work. - take measurements using a wide range of scientific equipment, with increasing accuracy and precision. - record data and results of increasing complexity using scientific diagrams and labels, tables, bar and line graphs and models. - report findings from enquiries, including oral and written explanations of results, explanations involving causal relationships and conclusions. - present findings in written form, display and other presentations. - use test results to make predictions to set up further comparative and fair tests. 	Also covered in: Y4 - Electricity
By the end of this unit, the children will be able to: <ul style="list-style-type: none"> - use simple apparatus to construct and control a series circuit - describe how the circuit may be affected when changes are made to it - use recognised symbols to represent simple series circuit diagrams - ask their own questions about circuits , and select the most appropriate ways to answer these questions, recognising and controlling variables - give an explanation of their findings involving causal relationships - raise further questions that could be investigated, based on their observations 		

Knowledge

- The more cells added to a circuit the brighter the bulbs will be
- The more cells added to a circuit the louder the noise the buzzer will make
- If the switch is on, it completes the circuit and the bulb/buzzer will light up
- If the switch is off, the circuit is broken and the blub/buzzer will not light up.
- A simple series electrical circuit is a circuit with a single wire running from a battery to a bulb and back again.
- To know the necessary safety precautions when working with electricity.

Topic Specific Vocabulary current, insulator, conductor, semiconductor, voltage, circuit, series, buzzer, bulb, cell, battery wires, symbol, diagram, motor	NC Subject content <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.
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Subject Specific/Academic Vocabulary
 This vocabulary should be explicitly taught in context. Other tier 2 words should also be explored as they are encountered.

Year 3	Year 4	Year 5	Year 6
Benefit, impact, issues, occur, process, sequence, source, variables	Appropriate, consequences, identified, procedure, range, relevant, significant, specific, theory, transfer	Factors, affect, analyse, contribute, demonstrate, outcome, react, volume,	Component, exclude, function, imply, initial, justify, sufficient.

We are scientists
 Make a video to show what they've learnt and add to the school facebook page