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| **Electricity** | **Working Scientifically** | | |
| * Can they identify and name the basic parts of a simple electric series circuit? (cells, wires, bulbs, switches, buzzers) * Can they compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers, the on/off position of switches? * Can they use recognised symbols when representing a simple circuit in a diagram? | Planning | Obtaining and presenting evidence | Considering evidence and evaluating |
| * Can they plan and carry out a scientific enquiry to answer questions, including recognising and controlling variables where necessary? * Can they make a prediction with reasons? * Can they use test results to make predictions to set up comparative and fair tests? * Can they present a report of their findings through writing, display and presentation? | * Can they take measurements using a range of scientific equipment with increasing accuracy and precision? * Can they take repeat readings when appropriate? * Can they record more complex data and results using scientific diagrams, labels, classification keys, tables, scatter graphs, bar and line graphs? | * Can they report and present findings from enquiries through written explanations and conclusions? * Can they use a graph to answer scientific questions? |
| **Challenge** | | | |
| * Can they make their own traffic light system or something similar? * Can they explain the danger of short circuits? * Can they explain what a fuse is? * Can they explain how to make changes in a circuit? * Can they explain the impact of changes in a circuit? * Can they explain the effect of changing the voltage of a battery? | * Can they explore different ways to test an idea, choose the best way and give reasons? * Can they vary one factor whilst keeping the others the same in an experiment? * Can they use information to help make a prediction? * Can they explain, in simple terms, a scientific idea and what evidence supports it? | * Can they decide which units of measurement they need to use? * Can they explain why a measurement needs to be repeated? | * Can they find a pattern from their data and explain what it shows? * Can they link what they have found out to other science? * Can they suggest how to improve their work and say why they think this? |