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| **Electricity** | **Working Scientifically** | | |
| * Can they identify common appliances that run on electricity? * Can they construct a simple series electric circuit? * Can they identify and name the basic part in a series circuit, including cells, wires, bulbs, switches and buzzers? * Can they 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? * Can they recognise that a switch opens and closes a circuit? * Can they associate a switch opening with whether or not a lamp lights in a simple series circuit? * Can they say what happens to the electricity when more batteries are added? * Can they recognise some common conductors and insulators? * Can they associate metals with being good conductors? | **Planning** | **Obtaining and presenting evidence** | **Considering evidence and evaluating** |
| * Can they set up a simple fair test to make comparisons? * Can they plan a fair test and isolate variables, explaining why it was fair and which variables have been isolated? * Can they suggest improvements and predictions? * Can they decide which information needs to be collected and decide which is the best way for collecting it? * Can they use their findings to draw a simple conclusion? | * Can they explain their findings in different ways (display, presentation, writing)? | * Can they find any patterns in their evidence or measurements? * Can they make a prediction based on something they have found out? * Can they evaluate what they have found using scientific language, drawings, labelled diagrams, bar charts and tables? * Can they use straightforward scientific evidence to answer questions or to support their findings? |
| **Challenge** | | | |
| * Can they explain how a bulb might get lighter? * Can they recognise if all metals are conductors of electricity? * Can they work out which metals can be used to connect across a gap in a circuit? * Can they explain why cautions are necessary for working safely with electricity? | * Can they plan and carry out an investigation by controlling variables fairly and accurately? * Can they use test results to make further predictions and set up further comparative tests? | * Can they record more complex data and results using scientific diagrams, classification keys, tables, bar charts, line graphs and models? | * Can they report findings from investigations through written explanations and conclusions? * Can they use a graph or diagram to answer scientific questions? |