KS2 Science KCV – Electricity

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| Key Knowledge | Detail |
| * identify common appliances that run on electricity
 | Look at examples of where different sources of electricity are used. |
| * construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers
 | Use circuit components to power a range of devices, including motors for a mini buggy. |
| * 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
 | Solve problems when a device does not work. Where is the circuit broken? |
| * recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit
 | Make a circuit that includes a switch to start and stop a powered buggy. |
| * recognise some common conductors and insulators, and associate metals with being good conductors.
 | Investigate the best materials to use in their own switched circuit for a control device for a powered buggy. |

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| Key skills |  |
| * Make systematic and careful observations and, where appropriate, takeaccurate measurements using standard units, using a range of equipment, including thermometers and data loggers
* Gather, record, classify and present data in a variety of ways to help in answering questions
* Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
* Identify differences, similarities or changes related to simple scientific ideas and processes
* Use straightforward scientific evidence to answer questions or to support his/her findings
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| vocabulary |
| **Conductor** | Allows electrical energy to flow through |
| **Insulator** | Prevents electrical energy from flowing through |
| **Circuit** | A sequence of connected components joined without a break. |
| **Current** | Measure of electrical energy flow |

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| High Frequency Vocabulary  |
| electricity, circuit, switch, battery, plug, mains, appliance, device, wire, crocodile clip, bulb, buzzer, connection, power, cell, conductor, insulator, energy, flow, current, motor |

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| Key concept questions |  |
| Where does electricity come from? |
| How do electrical devices work? |
| What is an electrical circuit? |
| What makes electricity turn on and off? |
| What materials are good conductors? |



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