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| ***Words to know and spell (Tier 2 Vocabulary)*** | | |
| Appliances | Buzzer | Current |
| Electricity | Danger | Energy |
| Electrical circuit | Electrical safety | Mains |
| Cell | Switch | Power |
| Wire | Open | Source |
| Bulb | Closed |  |

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| ***Words to understand and spell (Tier 3 Vocabulary)*** | |
| **Conductor** | An object or material that lets electricity pass |
| **Insulator** | An object or material that does not let electricity pass easily |
| **Simple circuit** | A closed loop where the components are arranged one after another |
| **Ammeter** | A device for measuring the strength of an electric current in units called amps |
| **Component** | A part that combines with other parts to form something bigger |

** Year 4 – Science KCV – Electricity**

• Know that electrical energy is one of many forms of energy

• Know that static electricity is an imbalance of charged particles on a material• • Know that current electricity is the flow of charged particles called electrons around a circuit

• Know that current electricity is the form of electricity that we use in our lives

• Know that electrical current flows well through some materials, called electrical conductors, and poorly through other materials, called electrical insulators

• Know that electrical conductivity is an example of a property

• Know that metals are good electrical conductors

• Know that a chemical reaction inside a cell produces the charged particles that can flow around a circuit

• Know that more than one cell lined up to work together is called a battery

• Cells, batteries and the mains are all sources of electrical energy

• Know that electrical current can flow if there is a complete circuit

• Know that wires – which contain a conductor inside them, usually made of metal – can allow electrical current to flow around a circuit

• Know that when electrical current flows through a circuit, components within that circuit – such as buzzers – begin to work

• Know that a switch functions by completing or breaking a complete circuit

• Know how to construct a simple circuit using components

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***Key facts to learn:***

• I can set up simple practical enquiries, comparative and fair tests.

• I can gather, record, classify and present data in a variety of ways to help in answering questions.

• I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.

• I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

• I can use straightforward scientific evidence to answer questions or to support my findings

***Key skills to do:***

***Concept check questions. Test yourself:***

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| Which items in your home require electricity?  Explain why a doorbell rings when someone presses it.  Which items conduct electricity?  Which items are insulators?  What are the dangers associated with electricity? |
| **Opportunities for Investigation:**  **Pattern Seeking:** Which room in a house has the most electrical sockets? Why? |
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**Year 3/4 – Science – Autumn 2 – Heyford Park School**

**Year 5 – Science – Autumn 1 – Heyford Park School**