**Science Electricity Curriculum Skills Progression**

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|  | **Year R** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Year 6** |
| Naming and Identifying |  | Identify and talk about products that use electricity. |  |  | Identify and name a range of familiar devices and equipment that require electricity for power. Name the basic parts of a circuit including cell, wires, switch and buzzer. |  | Identify and name components of a circuit and define terms, such as voltage and current in relation to series circuits. |
| Series circuits |  |  | Create working circuits in the context of D&T (e.g. to light a bulb or work a buzzer). |  | Construct operational simple series circuits, using a range of components and switches for control, and use these to make simple devices. Recognise that a switch opens and closes a circuit. |  | Work scientifically to construct a series circuit for a specific device or outcome and explain how it works. Compare and give reasons for variation in how components function e.g the brightness of a bulb. |
| Circuit symbols |  |  |  |  | Predict if a circuit will work based on whether it is a complete loop and draw simple circuits, using their own or conventional circuit symbols. |  | Draw a series circuit, using the conventional circuit symbols. |
| Current and voltage |  |  |  |  | Recognise that a cell (battery) is a power source generating and pushing current (electricity) through a circuit, and by adding cells the power source increases. |  | Describe the relationship between the number or voltage of a cell or cells and the effect it has on a bulb or buzzer example |
| Conductors and insulators |  |  |  |  | Sort and classify materials into those that are conductors and those that are insulators, identifying similarities within the groups. |  | Predict materials that could be good conductors of electricity and conduct a fair test to show this. |
| Safety |  | Recognise that electricity can be dangerous. | Identify dangerous scenarios from pictures or video clips. | Create rules that show an understanding of electrical safety requirements in the home. | Recognise the dangers of working with electricity and explain how to work safely. |  | Demonstrate how to work safely with electrical circuits. |