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| **What will we be learning?**  **Voltage and Resistance** | **Why this? Why now?**  Previous Learning  Current  Future Learning  Magnetism, electromagnetism  Enquiry Processes  Analyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Plan variables | **Key Words:**  **Potential difference**  **Current**  **Electrons**  **Charges**  **Nuclei**  **Voltage**  **Series**  **Parallel**  **Ammeter**  **Voltmeter**  **Resistance**  **Ohms law** |
| **What will we learn?**  How to connect a voltmeter with another component in parallel.  That voltage provides a push from a cell or power supply and is needed for current.  What resistance is.  How voltage acts across components in series and parallel.  What Ohms law states.  How to calculate resistance from voltage and current readings.  How voltage affects current.  How resistance removes energy from a circuit.  **Misconceptions in this topic**  High voltage kills.  Current flows from a battery (or other source of electricity) to a light bulb (or other item that consumes electricity), but not from the light bulb to the battery.  Current flows around a complete circuit, but it is used u by objects like light bulbs so less current returns than leaves the source of the electricity. | |
| **What opportunities are there for wider study?**   * Electrical engineering technician. * Mechanical engineering technician. * Electricity distribution worker. * Electrical engineer. * Energy engineer. | |
| **How will I be assessed?**  End of topic assessment | |