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| **Key Information** | **Key Scientists** | **Subject Specific Vocabulary** | |
| ***What is a circuit? –*** *It is a complete path around which electricity can flow.* | **Alessandro Volta (1745-1827)**  **Alessandro Volta** was an Italian physicist, chemist, and pioneer of electricity and power who is credited as the inventor of the electric battery and the discoverer of methane.  **Andre-Marie Ampere (1775-1836)**  **André-Marie Ampère** was a French physicist and mathematician whose studies allowed people to measure the amount of electrical current flowing through a circuit. The current is measured in units called amperes or amps for short. | **electricity** | Electricity is a form of energy. Energy is needed to make things happen. |
| ***What does a circuit need to work? –*** *It must have a power supply (a battery). The positive and negative ends of the battery must be connected using wires.*  *A simple circuit can be made from a battery, a bulb and wires* | **components**  **effects of electricity** | battery, bulb (lamp), bulb holder, buzzer, crocodile clip, leads, wires, switch  light, sound, movement, heat |
| ***What does a switch do? -*** *Switches are used to control circuits. They can break a circuit (when open) so switch a bulb, buzzer or motor off or complete a circuit (when closed) and switch them on again.* | **electrical conductor** | Materials that let electricity to pass through them. Metals such as copper, iron and steel are good conductors. |
|  | **electrical insulator** | Materials that **do not** allow electricity to pass through them. Plastic, wood, glass and rubber are good insulators. |
| **Appliances** | fridge, freezer, TV, computer, iron, kettle etc |
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