Year 6 Knowledge Organiser Electricity

Skills

- Investigating the effect of adding more bulbs to a circuit
- Investigating the effect of adding more cells to a circuit
- Investigating the effect of adding more buzzers to a circuit
- Investigating the effect of adding more motors to a circuit
- Make circuits using a different number of components (draw circuit diagrams using conventional symbols)
- Explore different types of switches and their suitability for different purposes

Knowledge

- Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit
- Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches
- Use recognised symbols when representing a simple circuit in a diagram

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| Key v oc abulary | | Facts |
|-----------------------------|---|---|
| circuit | a closed loop for electricity to travel around | We use scientific symbols to represent the components (parts) of a circuit. |
| component | a part used in an electrical circuit | The brightness of a bulb or the loudness of a buzzer is affected by the number of cells in a circuit. |
| electricity | a form of energy caused by electrons moving | The brightness of a bulb or the loudness of a buzzer is affected by the voltage of |
| cell (battery) | a stored source of electricity | cells in a circuit. |
| switch | a switch turns an electrical circuit on or off by | The number of components in a circuit can affect how they function. |
| | completing or breaking the circuit | The arrangement of components in a circuit can affect how they function. |
| conductor | an object that allows electricity to flow through it easily (objects made of metal are good conductors) | The length of wires in a circuit can affect how the components function. |
| insulator | an object that does not allow electricity to flow through it easily | Electrical Circuit Symbols |
| circuit symbols | see diagram | lamp lamp wire (indicator) (lighting) ammeter |
| voltage | a force that makes electricity flow through a wire (it is measured in volts) | motor voltmeter buzzer open switch |
| motor | a machine that turns electrical energy into movement | Image: cell Image: closed switch cell battery |