**Electricity Knowledge Organiser (Stanley Road Year 4 Autumn Term 2)**

<table>
<thead>
<tr>
<th>Common electrical hazards</th>
<th>Electrical circuit symbols</th>
<th>Vocabulary Dozen</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Overloading a plug extension socket.</td>
<td><img src="image" alt="lamp (indicator)" /></td>
<td>circuit A complete route which an electric current can flow around.</td>
</tr>
<tr>
<td>2. Exposed wires.</td>
<td><img src="image" alt="lamp (lighting)" /></td>
<td>current A flow of electricity through a wire.</td>
</tr>
<tr>
<td>3. Damaged wall sockets.</td>
<td><img src="image" alt="wire" /></td>
<td>physics The study of forces including electricity and the way it affects objects.</td>
</tr>
<tr>
<td>4. Wires left along the carpet for people to trip over.</td>
<td><img src="image" alt="motor" /></td>
<td>battery A small device that provides power for electrical items.</td>
</tr>
<tr>
<td>5. Placing metal into electrical appliances or open sockets.</td>
<td><img src="image" alt="buzzer" /></td>
<td>cell A device used to generate electricity. A battery is an example of a cell.</td>
</tr>
<tr>
<td>6. Electrical appliances and wires near water.</td>
<td><img src="image" alt="open switch" /></td>
<td>conductor Any material that electricity can pass through or along.</td>
</tr>
</tbody>
</table>

**NOTE:** WATER IS AN EXCELLENT ELECTRICAL CONDUCTOR SO IT CAN BE VERY DANGEROUS TO HAVE ELECTRICAL DEVICES NEAR WATER

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**Thomas Edison (1847 – 1931)**

Thomas Edison was born in 1847 and died in 1931. He lived in the state of New Jersey in the United States of America (USA). He is known as one of the greatest inventors in history. He invented the **light bulb**, the **phonograph** (which could record and play sound) and an early video camera called the **Kinetograph**. The films were then watched on a **Kinetoscope** which he also invented.

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**A scientific diagram of an open circuit:**

![Diagram](image)

The light bulb will not light in this circuit until the switch is closed.

**Electrical Conductors**

- Copper
- Iron
- Steel
- Silver
- Gold

**Electrical Insulators**

- Rubber
- Wood
- Plastic
- Paper

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**Electrical Circuit Symbols**

- Light bulb (indicator)
- Lamp (lighting)
- Wire
- Motor
- Battery
- Buzzer
- Open switch
- Closed switch
- Cell
- Wire
- Voltage
- Socket