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| **Key Vocabulary** | |
| **electricity** | A form of energy used for lighting, heating, making sound and making machines work. |
| **electrical appliance** | A machine or device that runs on electricity. |
| **mains** | The electricity supplied to households from power stations. |
| **electrical circuit** | This consists of a cell or battery connected to a component using wires. It needs to be a complete circuit to work. |
| **cell and battery** | A cell is a single unit and a battery is a collection of cells. |
| **electrical component** | A part that combines with others to form a circuit. E.g. bulb, motor, buzzer |
| **switch** | Can be added to a circuit to turn a component on or off. It allows the electricity to flow or it stops it. |
| **conductor** | Material that allows electricity to pass through. |
| **insulator** | Material that does not allow electricity to pass through it. |

**Appliances that run on electricity**

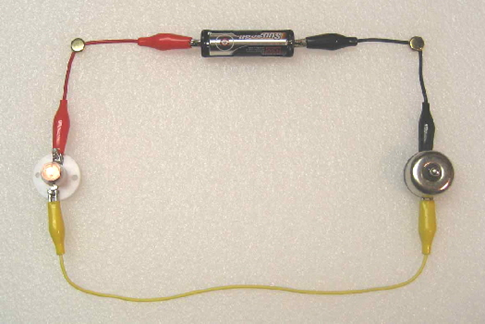
Some plug into the mains and others run on batteries.

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**Electricity – Year 4**

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| **Significant scientist** | |
| **Thomas Edison**  *(1847-1931)* | Thomas Edison was an American inventor. He is sometimes described as America’s greatest inventor. He invented the first practical incandescent light bulb. |

**Electrical circuit with a bulb**

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**The switch opens and closes the circuit. The bulb lights in this circuit because the switch is on.**

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| This circuit will not work as it is not complete. |  |
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| This circuit is complete so the buzzer will sound and the bulb will light. | **A close up of a logo  Description automatically generated** |

**Conductors and insulators**

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| **Conductors**  Some materials let electricity pass through them easily. These are known as electrical conductors. Many metals are good electrical conductors, such as iron, copper and steel. | |
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| **Insulators**  Some materials do not allow electricity to pass through them. They are known as insulators. Plastic, wood, rubber and glass are good electrical insulators. | |
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