

# Electricity

| Vocabulary Dozen |  |
|------------------|--|
| circuit          | a closed loop for electricity to travel around   |
| component        | a part used in an electrical circuit   |
| electricity      | a form of energy caused by electrons moving  |
| cell (battery)   | a stored source of electricity   |
| switch           | a switch turns an electrical circuit on or off by completing or breaking the circuit                         |
| conductor        | an object that allows electricity to flow through it easily (objects made of metal are good conductors)      |
| insulator        | an object that does not allow electricity to flow through it easily  |
| Circuit symbols  | Diagrams used to show a representation of an electrical component  |
| Voltage          | a force that makes electricity flow through a wire (it is measured in volts)                                 |
| Current          | a flow of electricity which results from the ordered directional movement of electrically charged particles. |
| Series           | an electric circuit along where the whole current flows through each component.                              |
| Parallel         | an electrical path that branches so that the current divides and only part of it flows through any branch.   |

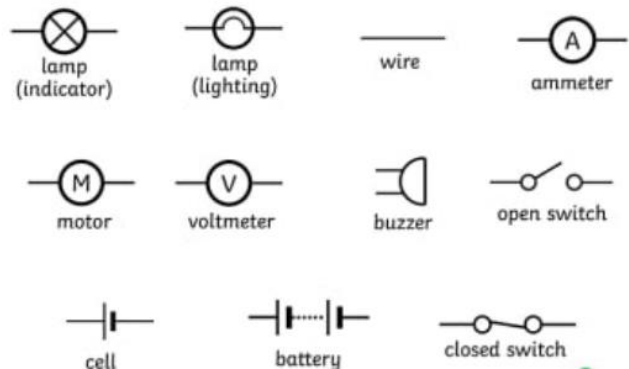
## Common electrical hazards

1. Overloading a plug extension socket.
2. Exposed wires.
3. Damaged wall sockets.
4. Wires left along the carpet for people to trip over.
5. Placing metal into electrical appliances or open sockets.
6. Electrical appliances and wires near water.

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

| Electrical Conductors<br>-electricity can pass through easily | Electrical Insulators<br>-do not let electricity pass through |
|---|---|
| -Copper<br>-Iron<br>-Steel<br>-Silver<br>-Gold                | -Rubber<br>-Wood<br>-Plastic<br>-Paper                        |

## Electrical Circuit Symbols



Ben Franklin is most famous for his experiments with electricity. He performed many experiments that proved that lightning is in fact electricity. This led to his invention of the lightning rod, which helps to keep buildings safe from lightning.