



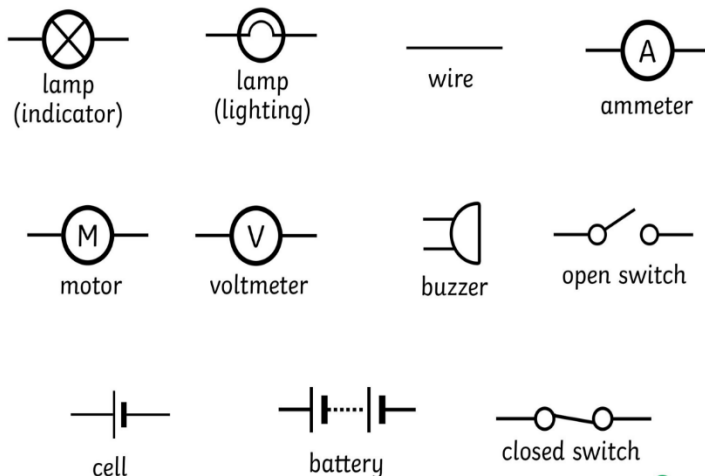
Key facts

- Electricity was not invented - it was discovered by humans. The energy was always there on Earth but needed someone to find that spark.
- The brightness of a bulb is affected by the voltage in the circuit - the lower the voltage, the dimmer the bulb.
- Changes to components in a circuit has an effect on the brightness of its bulb or the volume of its buzzer.
- Electricity comes from the power station, the wind, the sun, water and even an animal's pool!
- Electricity is a type of energy that builds up in one place (static), or flows from one place to another (current electricity).

Did you know?

- Lightning is caused by the discharge of electricity in the atmosphere.
- Electricity travels at the speed of light. That's more than 186,000 miles per second!
- **Alessandro Volta** - Italian physicist who is credited with inventing the battery.
- **Edith Clarke** - American scientist who was the first woman to be professionally employed as an electrical engineer in the United States.
- **Benjamin Franklin** - most credited for discovering electricity in 1752. In an experiment, he attached a wire to a kite in a thunderstorm, which showed that lightning consists of electricity.

Components of a circuit and their symbols.

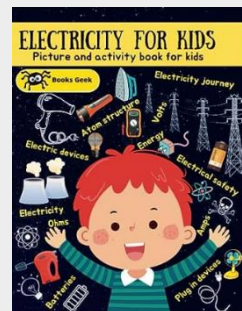
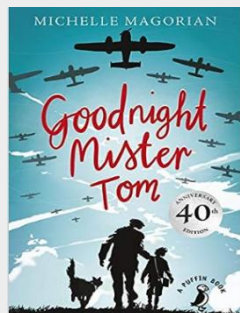


Key words:

| | |
|-------------|--|
| battery | a device that stores chemical energy until it is needed: a battery is a collection of cells |
| Bulb / lamp | converts electricity to light or heat |
| buzzer | a component that can create an audible tone or make a sound |
| cell | a device that stores chemical energy until it is needed: a cell is a single unit. |
| circuit | a path that an electrical current can flow around |
| component | a part or device within a circuit |
| motor | converts electricity to movement |
| resistance | the difficulty that the electric current has when flowing around a circuit |
| switch | opens and closes the circuit |
| voltage | the force that makes the electric current move through the wires: the greater the voltage, the more current will flow. |

Exciting books / web links:

- <https://www.makerspaces.com/squishy-circuits/>
- <https://www.bbc.co.uk/bitesize/topics/zj44jxs>
- <https://www.stem.org.uk/resources/community/collection/12390/year-6-electricity>



Parents as partners:

- Investigate how much the electricity for school or home costs and how we could save money.
- Write a persuasive letter to parents or others in the community encouraging them to use less electricity.
- Discover how life was different in times before electricity. What electrical devices do we have now that weren't around in the past?
- Create electrical games such as an 'Operation' style game or a steady hand game where a hoop must be moved without touching a metal wire.
- Encourage your child to research how electricity is used in the modern world.
- Create a fact file about Alessandro Volta, Edith Clarke or Benjamin Franklin.