



Leeds East
Primary Partnership
Astonbury Hall
Cross Gates
Primary School

Electricity



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Year Group: 6

Subject Focus: Science

Term: Autumn 1

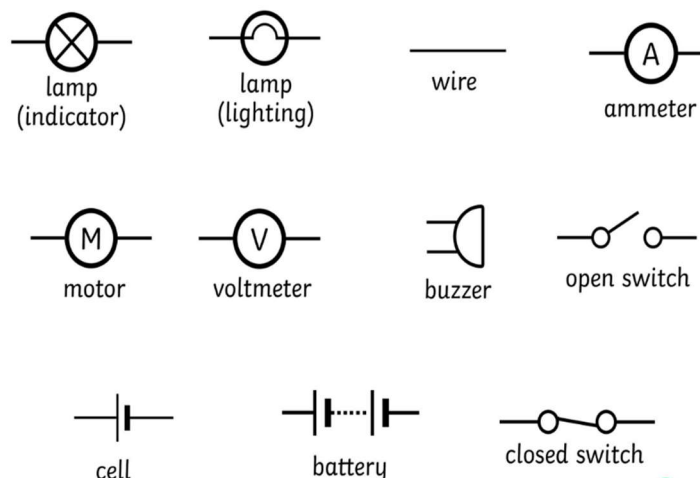
Key facts

- 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:

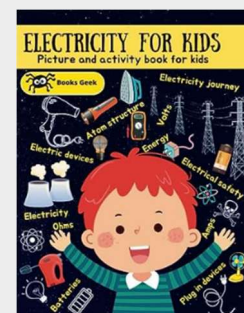
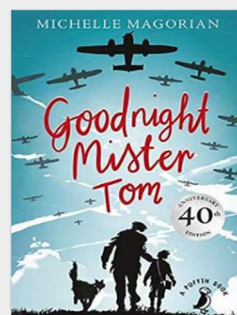
mains power	Electricity that comes into our homes and schools through plug sockets.
portable	Something that can be easily carried and used in different places.
pylon	A tall tower that holds up electricity cables.
variations	Different versions of the same thing.
battery	A portable source of electricity that can power a device.
component	A part or device within a circuit.
renewable energy sources	Ways of producing energy using natural resources that can be used again and again.
non-renewable energy sources	Ways of producing energy using resources that will eventually run out.
resistance	Something that slows down or reduces the flow of electricity in a 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 different life was 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.