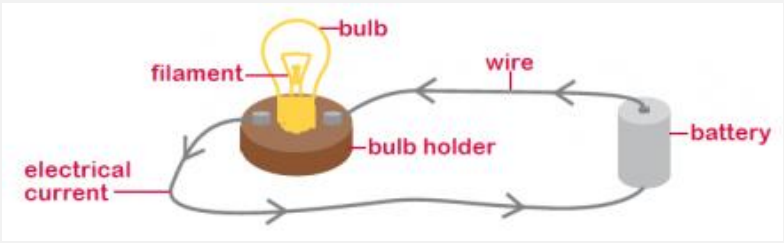
Electricity Knowledge Map- What affect will changing variables have on my electrical circuit?

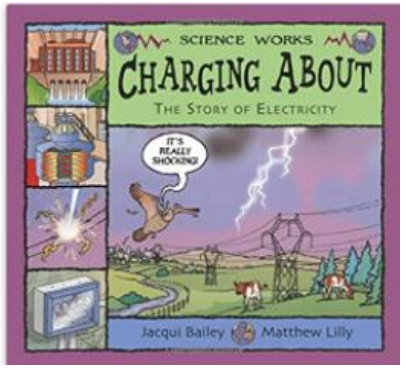
Subject Specific Vocabulary

conductor	Materials that let electricity pass through them easily are conductors. Eg: metal.
insulator	Materials that do **not** let electricity pass through them easily are called insulators. Eg: wood.
series circuits	A series circuit has only one path through which the electricity (electrons) flows.
cells	An electrical cell is a single device that is used to generate electricity.
battery	Is a collection of cells that are used to generate electricity
Voltage (volts)	Voltage is a measure of electrical energy. The higher the voltage the more energy there is. Voltage tells us how much a battery pushes a current.
current	This is the amount of electricity flowing through a circuit.
resistance	Resistance tells us how difficult it is for the current to flow.
Nikola Tesla 	Tesla was an electrical and mechanical engineer who developed the AC electrical system and made important advances in technologies such as x-rays, neon lights and robotics.



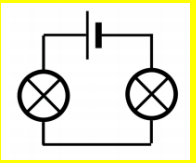
Interesting facts

- Electricity travels at the speed of light. That's more than 186,000 miles per second!
- Coal is the biggest source of energy for producing electricity. Coal is burned in furnaces that boil water and create steam.
- A popular way of generating electricity is through hydropower. This is a process where electricity is made by water which spins turbines attached to generators.

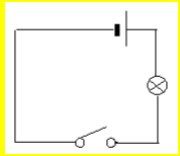


Sticky knowledge

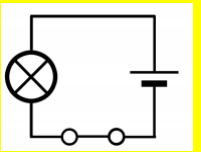
Children should be able to look at a circuit and identify why a circuit works or doesn't work.



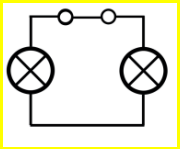
Will work



Won't work because the switch it open

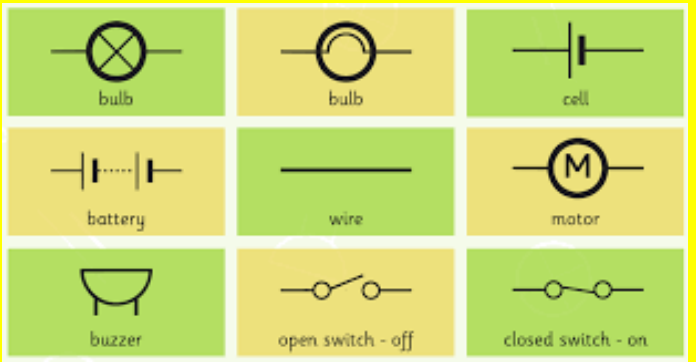


Will work



Won't work because there is no battery

Use recognised symbols in simple circuit diagram



More cells or a higher voltage of cell means a lamp is brighter or the buzzer is louder.