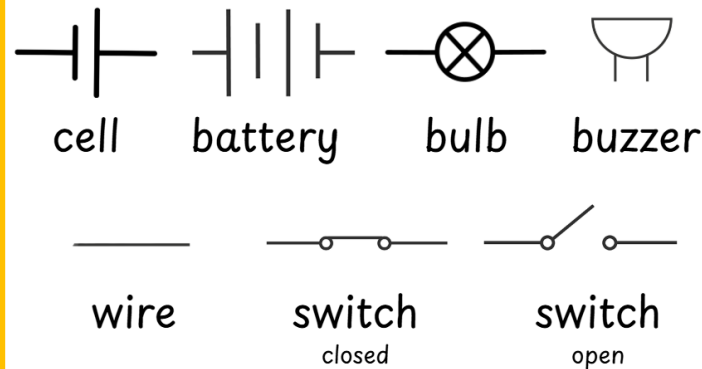


Key Vocabulary



Cells	A device that stores energy until it is needed. A cell is a unit.
Battery	A battery is a power source mad from more than one cell .
Wires	A thin metal strand (often covered in plastic) that carries electricity around a circuit.
Bulbs	A component that lights up when electricity flows through it.
Switches	A switch can be open or closed. When closed (on), electricity can flow, when open (off), electricity cannot flow.
Buzzers	A component that makes sound when electricity flows through it.
Symbol	An icon that represents a component .
Series circuit	A single , continuous loop that an electrical current can flow around. Made from components .
Conductors	Electrical conductors are materials that allow electrical charge to flow through them. For example, metals.
Insulators	Electrical insulators are materials that do not allow electrical charge to flow through them. For example, plastics.
Component	Individual parts that make up a circuit such as a bulb, cell, buzzer .

Circuit symbols



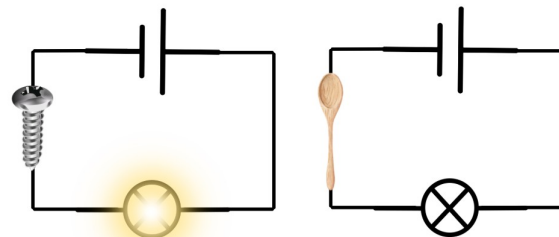
Inspiring Scientist— Lewis Latimer

Lewis Latimer was an inventor who improved the light bulb, helping it last longer and become more affordable. Born in 1848 to parents who escaped slavery, he worked hard to become an engineer. His work helped bring electric light into homes and made electricity more useful in everyday life.



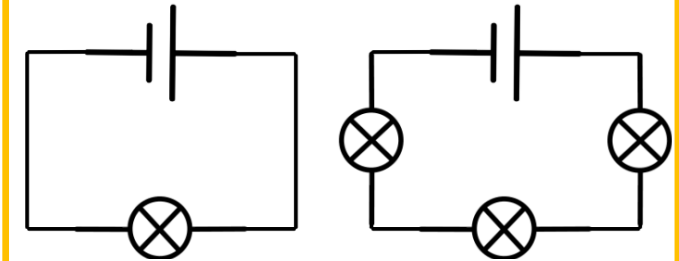
Conductors and Insulators

A conductor of electricity is a material that will allow electricity to flow through it. Metals are good conductors. Materials that are electrical insulators do not allow electricity to flow through them. Wood, plastic, and glass are good insulators.



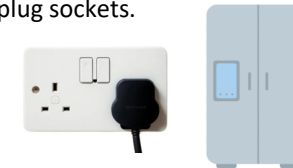
Investigation—Bulb brightness

A series circuit only has one path that the electrical current can take. If more bulbs are added, what will happen to the brightness of the bulb?



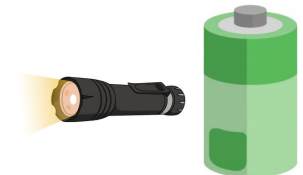
Mains Power

Power stations send an electric charge through wires to transformers and pylons. Then, underground wires care the electricity to our homes and out through plug sockets.



Batteries

Batteries store chemicals which produce an electric current. Eventually, even rechargeable batteries will stop producing an electric current.



Electrical safety

- Do not use electrical appliances or switches with wet hands
- Do not put anything other than a plug in a plug socket
- Let an adult know if electrical appliances or wires appear damaged
- Do not leave electrical

