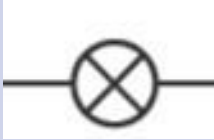
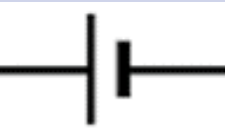


Components of a Circuit and their Symbols

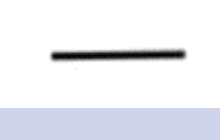
Bulb



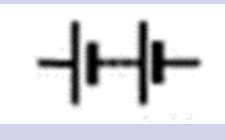
Cell



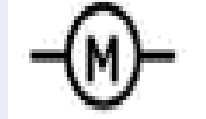
wire



Battery



Motor



Buzzer



Switch (open)



Switch (closed)

These symbols can be used to create electrical circuit diagrams.

This is a simple circuit diagram

Simple Series Circuit

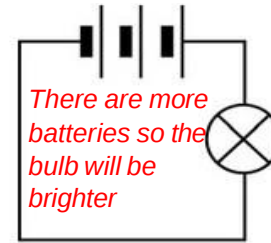
In order for electricity to flow, a circuit needs 3 things:

1. A source of electricity
2. No gaps in the circuit
3. Conductors

A **series circuit** has only one route for the current to take. If more **bulbs** or **buzzers** are added, the power has to be shared and so they will be dimmer or quieter. If just one part of this series circuit breaks, the circuit is broken and the flow of **current** stops.

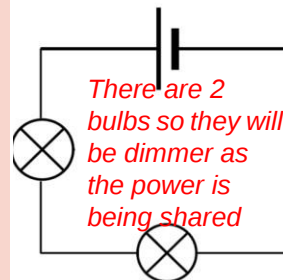
What will make a bulb brighter?

More **batteries** or a higher **voltage** create more power to flow through the circuit.



What will make a bulb dimmer or a buzzer quieter?

Fewer batteries or a lower voltage give less power to the circuit. More buzzers or bulbs mean the power is shared by more components.



Key Vocab

Circuit	A complete path that an electric current can flow around
Symbol	A visual picture that stands for something
Circuit diagram	A visual representation of an electrical circuit using symbols to represent the electrical components.
Cell/battery	A device that stores energy as a chemical until it is needed. A cell is a single unit. A battery is a collection of cells
Switch	An electrical component that can make or break an electrical circuit.
Voltage	The force that makes electricity move through a wire
Bulb	A glass bulb which provides light by passing an electrical current through a filament
Buzzer	An electrical device that makes a buzzing noise and is used for signaling (for example, in a burglar alarm)
Current	A flow of electricity, measured in amps
Motor	A machine that produces motion or power for doing work