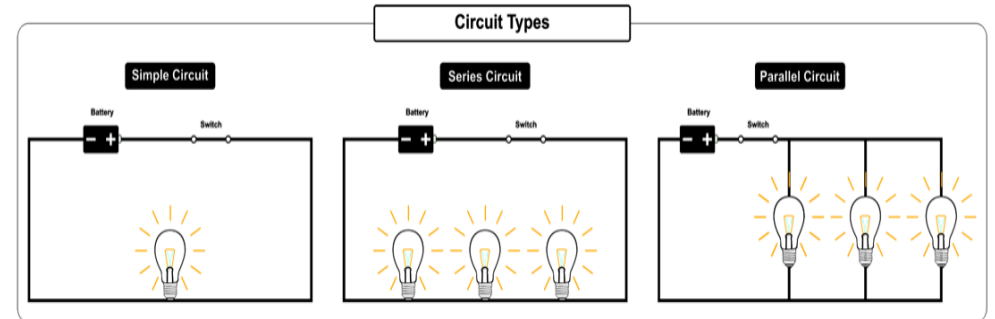




Key Vocabulary

WORD	DEFINITION
Battery	a source of energy in an electrical circuit
Circuit	a complete path which allows electricity to flow
Conductor	materials which allow electricity to flow through them easily
Dimmer switch	a light control which allows you to change the brightness of a light
Electricity	a form of energy
Insulator	materials that do not let electricity pass through them easily
Output	the amount of something produced (e.g., brightness of a bulb)
Resistor	a component that reduces electric current flow
Signal	an electrical impulse transmitted or received
Variable resistor	a component which varies the amount of electric current flow

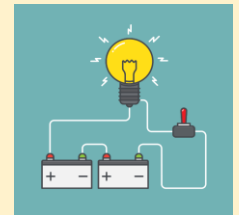
Key Knowledge



ELECTRICAL CIRCUIT SYMBOLS

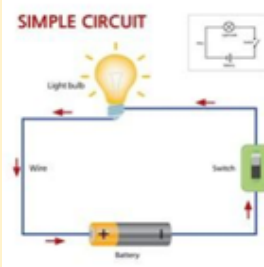
<b>Resistor</b> 	<b>Ammeter</b> 	<b>Voltmeter</b> 	<b>Motor</b> 
<b>Inductor</b> 	<b>Switch</b> 	<b>Lamp</b> 	<b>Capacitor</b> 
<b>Transformer</b> 	<b>Ground</b> 	<b>DC voltage source</b> 	<b>Diode</b> 

Adding more cells (batteries) to a circuit will make bulbs **brighter**, buzzers **louder** and motors **faster**.



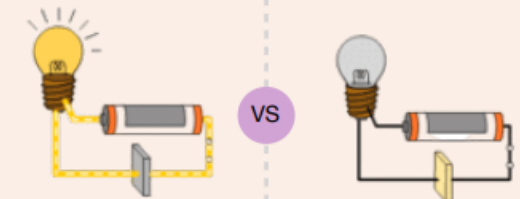
Electrical Conductors	Electrical Insulators
-electricity can pass through easily	-do not let electricity pass through
-Copper -Iron -Steel -Silver -Gold	-Rubber -Wood -Plastic -Paper

Wires are always drawn with a **straight line** using a **ruler** in scientific diagrams.



The **current** flows from **negative to positive**. There are **no gaps** - it is a **complete circuit** and the bulb lights up.

Electrical Conductor vs Electrical Insulator



Conductors are materials that permit electrons to flow freely from particle to particle. They can be used to make a switch.

In contrast, insulators are materials that impede (do not allow) the free flow of electrons from atom to atom and molecule to molecule. They can be used to make a plug or wire cover.