

# Science Knowledge Map - Spring 2 - Electricity

Circuit Symbols			
	Switch Closed		Cell
	Ammeter		Motor
	Battery		Resistor
	Bulb		Switch Open
	Buzzer		

**Electrical Conductor**

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

silver, gold, copper, steel, sea water

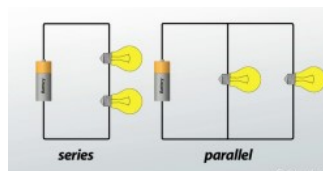
**Electrical Insulator**

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.

rubber, glass, oil, diamond, dry wood

VS

Switches	
<ol style="list-style-type: none"> <li>When a switch is open (off) there is a gap in the circuit.</li> <li>Electricity cannot flow around the circuit.</li> </ol>	<p>A</p>
<ol style="list-style-type: none"> <li>When a switch is closed (on) it makes the circuit complete.</li> <li>Electricity can flow around the circuit.</li> </ol>	<p>B</p>



## vocabulary

circuit	a closed loop for electricity to travel around
component	a part used in an electrical circuit
electricity	a form of energy caused by electrons moving
cell (battery)	a stored source of electricity
switch	a switch turns an electrical circuit on or off by completing or breaking the circuit
conductor	an object that allows electricity to flow through it easily (objects made of metal are good conductors)
insulator	an object that does not allow electricity to flow through it easily
voltage	a force that makes electricity flow through a wire (it is measured in volts) motor a machine that turns electrical energy into movement
motor	a machine that turns electrical energy into movement

