



Lesson Sequence



1. Explore electrical appliances and electrical safety



2. Learn about electrical components in a series circuit



3. Investigate electrical circuits



4. Explore conductors and insulators



5. Learn about electrical switches



6. Apply knowledge of conductors and insulators

Key Facts

1. A series circuit contains a power source (cell or battery), wires and a component that requires electricity to work (bulb, bell or buzzer) in a single loop.
2. Electricity flows through the wires from the power source, around the circuit and back to the power source.
3. A switch can be added to the circuit to break or reconnect it.

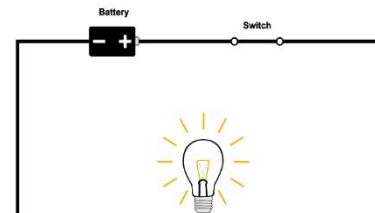
Conductors and Insulators

- Materials that allow electricity to pass through to create a complete circuit are called electrical conductors.
- Materials that do not allow electricity to pass through and do not complete a circuit are called electrical insulators.

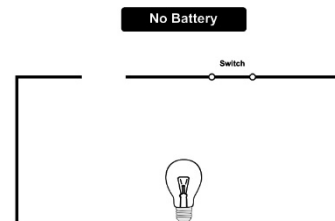
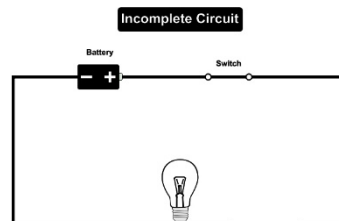
conductors	
steel	copper
insulators	
wood	plastic

Complete and Incomplete circuits

A complete circuit contains a power source, wires, and a component. They are connected in a loop with no breaks so that the electricity can flow from one end of the power source to the other.



The circuits below will not work. They are incomplete circuits.



Electrical Components



cell/battery



wire



bulb/lamp



buzzer



switch