Science 9

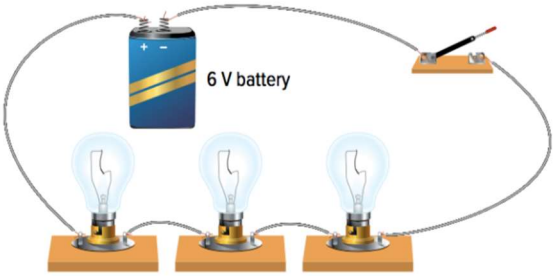
Physics V

Name:
Date:
Block:

1. **Series Circuits**
2. **Parallel Circuits**

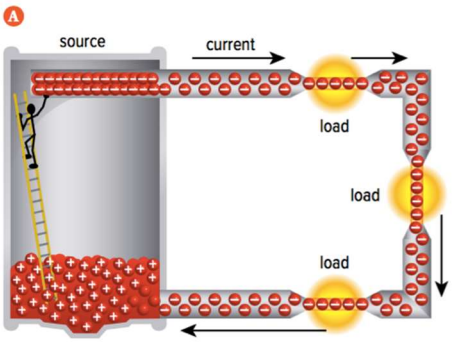
There are many different ways in which components in a circuit can be connected together. The two main types of circuits we can build are a _____ and a _____ circuit.

Series Circuits



A series circuit is a circuit that allows the current to flow on only _____ _____.

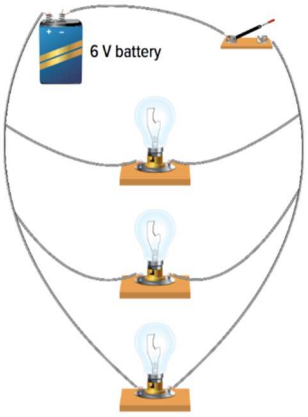
- As there is only one path that current can flow, the _____ remains the _____ no matter where you measure on the circuit.
- The voltage provided by the battery is _____ between all of the loads that are connected in the circuit. This will result in _____ voltage going across each of the individual loads.
  - Example: Adding more lights into the circuit will result in _____ _____ across each of the bulbs because there is less voltage provided for each light.
- If one part of the circuit is broken or incomplete, this will result in the _____ circuit _____ _____

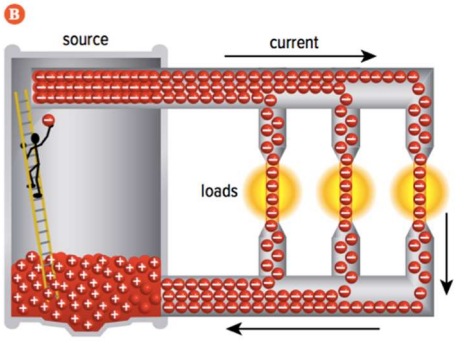


Parallel Circuit

A parallel circuit is a circuit that contains _____ _____ for the current to flow.

- The _____ _____ into many parts which means that the current is _____ in each of the paths.
- The total amount of current leaving and entering the battery will remain the _____.
- The voltage provided by the battery is _____ _____ across all of the loads. This will mean, the amount of voltage going across each load will be the _____.
  - Example: adding more lights into the circuit in parallel will not change the _____ of the bulbs because the amount of voltage does not change
- If one part of the circuit is broken or incomplete, the circuit can still _____ ___ _____ as there will be other closed pathways for the current to travel.





In the above figure:

- The battery and switch are connected in series
- The light bulbs (loads) are connected in parallel

Parallel loads can be commonly found in homes and buildings as _____ _____ can be added to each load in order to control what load is on and/or off.

In Summary…

	Series	Parallel
Definition		
Voltage (volts)		
Current (amps)		
Memory Aid		