

Name: _____
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Science 9

9.1 Series and Parallel Circuits

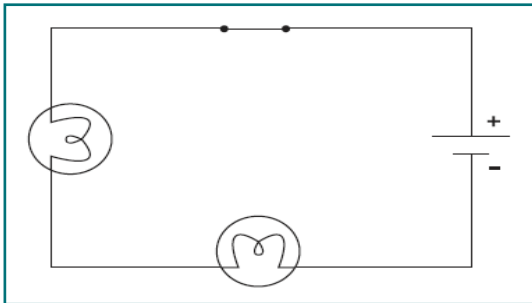
Series Circuits: read pgs 308-310

There is only a **single** pathway for current to flow

The **sum** of the voltages lost on the loads equals the **total voltage** supplied by the battery

Current measured **anywhere** in the series circuit will be the **same**

Resistors placed in series **increase** the total resistance of the circuit.



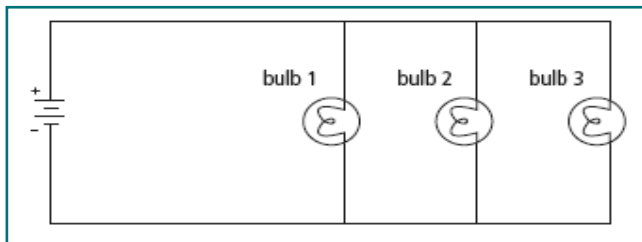
Parallel Circuits: read pgs 310 - 314

Multiple pathways for current to flow, adding more pathways **lowers** resistance

Voltage remains the **same** through each pathway of the parallel circuit

Current (**Amps**) **splits up** between the different current pathways so that the path with **least** resistance has the **greater** current, it the re-combines at a location known as the **junction point**.

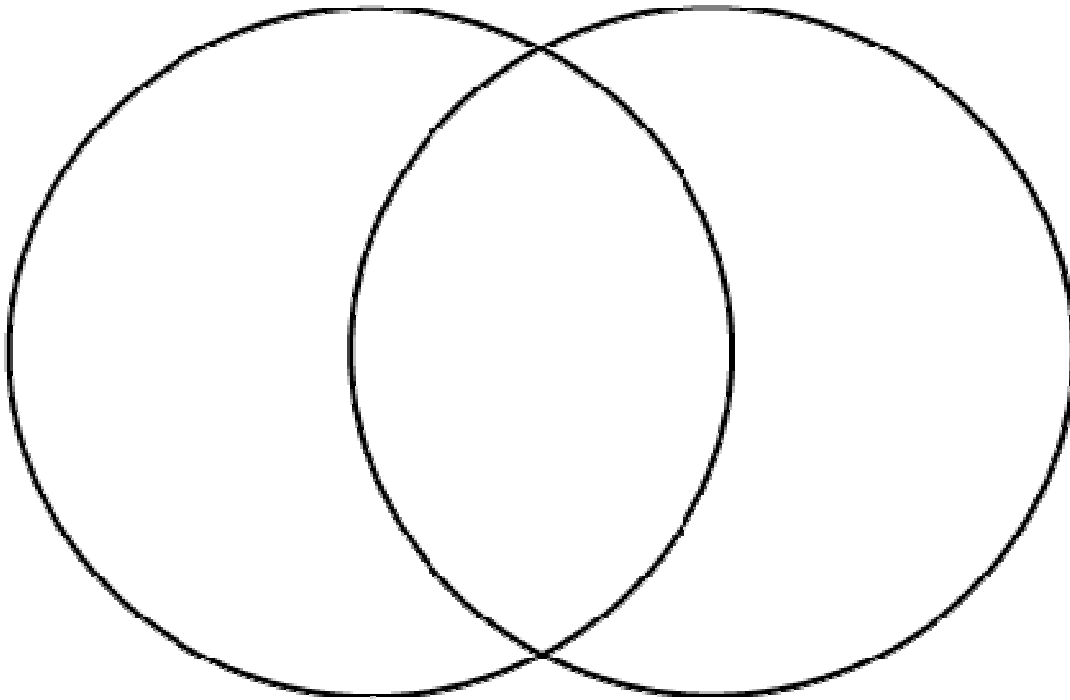
Resistors placed in parallel will **decrease** the total resistance of the circuit.



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Venn Diagram to Compare and Contrast Parallel and Series Circuits:



Series

Parallel