**Electrical Circuits**

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- A ***Circuit*** is a closed conducting ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** through which an electric current can ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_***.

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***Electrical Circuits - Parts***

**1) *Source of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** – battery, thermocouple,

electric generator, photocell

**2) *Resistance (load)*** – ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** that uses energy –

 light bulb, appliance, machine, motor

**3) *Wires*** – serves as a ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** to conduct the electrons

**4) *Switch*** – opens (***\_\_\_\_\_\_\_\_\_***) and closes (***\_\_\_\_\_\_\_***) circuit

***Circuit Diagrams***

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***Circuit Diagram Symbols***

***Types of Electrical Circuits***

**1) *Series***

- All the parts of an electric circuit are connected

 ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

- Only ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** for the electron to take

**2) *Parallel***

- Different parts of an electric circuit on

 ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***

*-* ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_***  for electrons to take

***Series Circuit***

*-* **Disadvantage**: if there is a break ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** in the circuit, the entire circuit is open and ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** can flow

***Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** holiday lights

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***Parallel Circuit***

- If there is a break in one branch, the electrons and current ***\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** through the other branches

***Ex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*** holiday lights

