

## ***Electric Current and Simple Circuits***

**Directions:** Use your textbook to respond to each statement.

- 1. Many of the devices you use every day are powered by electric current.**

**Define** *electric current*.

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- 2. Electric current keeps flowing only if there is a closed path through which the electrons can flow. Electric circuits provide closed paths for electric current.**

**Describe** a simple electric circuit.

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- 3. In a circuit, current flows from the source of energy, through wires to electrical devices, and back to the power source.**

**Describe** what happens to the number of electrons in the wire and the electric charge on the wire as current flows through it.

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- 4. Electric resistance is a measure of how difficult it is for electric current to flow through an object.**

**Compare** the electric resistance of conductors to the electric resistance of insulators.

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- 5. Ohm's law is an equation that describes how the voltage, current, and resistance in a circuit are related.**

**State** the Ohm's law equation.

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