

**Note-taking
Worksheet****Energy****Section 1 Energy Changes**

- A. _____—ability to cause change
- B. Energy _____—energy changes from one form to another without any being lost or gained.
- C. Energy due to motion is _____.
1. An object's kinetic energy depends on its _____ and _____.
 2. When objects _____, kinetic energy can be transferred.
- D. _____—stored energy due to an object's position
- E. Potential energy can be transformed to _____ and kinetic energy can be converted to _____.
- F. **Law of** _____—energy cannot be created or destroyed; it can only change form.
1. Total amount of energy in the universe _____ changes.
 2. Kinetic energy can be converted to _____ energy.

Section 2 Temperature

- A. _____—measure of the average kinetic energy of an object's atoms
- B. Temperature is measured with a _____.
1. _____—freezing point of water is 32° and boiling point is 212°
 2. _____—freezing point of water is 0° and boiling point is 100°
- C. _____—transfer of energy from one object to another due to a difference in temperature
1. Heat _____ from warmer objects to cooler ones.
 2. Flow of heat _____ when the temperature of two objects is the same.
- D. _____ is unusual because it takes a large amount of heat to raise its temperature; water's temperature does not change as much as surrounding air or land.

Note-taking Worksheet (continued)

- E. Heat can be transferred in _____ ways.
1. _____—transfer of energy by collisions between atoms; usually occurs in solids
 2. _____ transfers heat when particles move between objects or areas that differ in temperature; most common in gases and liquids.
 3. Energy transferred by waves is _____.

Section 3 Chemical Energy

- A. Chemical reactions _____ energy.
1. Compounds are broken down or new compounds are formed in a _____.
 2. Energy in chemical bonds is a form of _____ called chemical energy.
 3. In _____ chemical reaction, energy transformations occur.
- B. To break chemical bonds, energy must be _____; when chemical bonds form, energy is _____.
1. _____ **reactions**—chemical reactions that absorb energy
 2. _____ **reactions**—chemical reactions that release energy
 3. Chemical reactions occur at different rates; a _____ changes the rate of chemical reaction without its own structure being changed.

