



## Energy Vocabulary

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1. Energy—The ability to cause a change. (Mechanical, electrical, light, heat, and sound)
2. Kinetic Energy—The energy of motion. Example: Walking down the hall.
3. Thermal Energy—The kinetic energy of particles in matter. Means “Heat Energy”.
4. Temperature—The measure of the average motion energy of particles of matter.
5. Equilibrium—Balanced (Example: An equal number of hot and cold particles combine to create a warm area)
6. Heat—The transfer of thermal energy from one piece of matter to another.
7. Conduction—The transfer of thermal energy caused by particles of matter bumping into each other. Metals are good conductors.
8. Conductors—transfer heat or thermal energy easily. Metals are all good conductors. (Example: Pan on the stove)
9. Insulators—Materials that don’t transfer thermal energy well. (Examples: Styrofoam)
10. Convection—The transfer of thermal energy by particles of a liquid or gas moving from one place to another. (Hot air is less dense than cold air, so it is forced up by cooler-denser air. As the hot air is forced up, it warms the air around it. As the hot air cools, its density increase and it sinks. This process continues over and over.
11. Radiation—Bundles of energy that move through matter and empty space. This is how the sun gets its thermal energy to earth.
12. Infrared Radiation—Bundles of energy that carry heat.



## Unit E

### Chapter 1—Matter Vocabulary

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1. Matter—Everything in the universe that has mass and takes up space.
2. Mass—The amount of matter that something contains.
3. Solid—The state of matter that has a definite shape and takes up a definite amount of space.
4. Liquid—The state of matter that takes the shape of its container and takes up a definite amount of space.
5. Gas—The state of matter that has no definite shape and takes up no definite amount of space.
6. Volume—The amount of space that matter takes up.
7. Density—The property that compares the amount of matter to the space it takes up. (How close together particles are)
8. Solution—A mixture in which the particles of different kinds of matter are mixed evenly with each other and particles do not settle out.
9. Dissolve—To form a solution with another material.
10. Solubility—A measure of the amount of a material that will dissolve in another material.
11. Buoyancy—The ability of matter to float in a liquid or gas.
12. Physical changes—Any change in the size, shape, or state of a substance.
13. Chemical changes—A change that produces one or more new substances and may release energy.
14. Chemical Reaction—another way to say “chemical change”
15. Phase change—The physical change of matter from one phase to another.
16. Melting—a solid changing into a liquid
17. Freezing—a liquid changing into a solid
18. Evaporation—a liquid changing into a gas
19. Condensation—a gas changing into a liquid