Name _____ Date _____ Class _____

Changes in Energy

Directions: *On each line, write the term from the word bank that correctly completes each sentence. Some terms will be used more than once.*

energy transformation	**electrical** (3)	**friction**	**electromagnetic**
law of conservation of energy	**potential** (2)	**kinetic** (2)	**thermal** (3)
waste energy			

1. According to the _____, energy cannot be created or destroyed.
2. A change from electrical energy to electromagnetic energy to thermal energy is called a(n) _____.
3. A force that resists the motion of one surface over another is _____.
4. A microwave oven changes _____ energy to electromagnetic energy to _____ energy.
5. Suppose you are shooting a basketball toward a hoop. As the ball rises in the air, its _____ energy increases and its _____ energy decreases.
6. As the ball falls back toward the floor, its _____ energy increases and its _____ decreases.
7. Friction transforms some mechanical energy into _____ energy.
8. You use a lamp to change _____ energy into _____ energy.
9. When you use a battery, you transform chemical energy stored in the battery to _____ energy.
10. The exhaust from a car contains _____ energy that cannot be used. Scientists often refer to this energy that cannot be used as _____.

Directions: *On the line before each statement, write* T *if the statement is true or* F *if the statement is false.*

_____ 1. When you lift an object, you do work on the object.

_____ 2. When you lift an object higher, you decrease its gravitational potential energy.

_____ 3. Work is the transfer of energy that occurs when a force is applied over a distance.

_____ 4. An object that has energy can do work.

More on back…

_____ 5. When you lift an object, you increase potential energy.

_____ 6. When you lift an object, energy is transferred from the object to you.

_____ 7. Energy is the ability to do work.

_____ 8. When a bowling ball hits bowling pins, the pins transfer kinetic energy to the ball.

_____ 9. A ball rolling down a hill has increasing potential energy.

_____ 10. When you push a shopping cart, you transfer energy to it.

_____ 11. A child climbing a ladder is transforming kinetic energy into potential energy.

_____ 12. The child climbing the ladder is doing work.

_____ 13. When a pool ball hits another ball and causes it to move, potential energy has transferred from one ball to the other.

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