

SECTION

1

Reinforcement

What is energy?

Directions: Answer the following questions on the lines provided.

1. What is energy?

ability to do work

2. How can you tell when something has energy?

when it is causing change or has the potential to

Directions: Fill in the following table with what kind of energy each of the examples contains.

cause change

Example	Type of energy
3. a flying bird	kinetic
4. a burning candle	chemical, radiant, thermal
5. a battery	chemical
6. a hamburger	chemical
7. a book on a shelf	potential
8. a green plant	chemical
9. a beam of sunlight	radiant
10. a piece of radioactive metal	nuclear
11. a cup of hot cocoa	thermal

Directions: Fill in the blanks with the terms that best complete the statements.

12. Kinetic energy is the energy of motion.
13. A balloon floating in the air has more kinetic energy than a boulder at the top of a cliff.
14. When you pick up a book, you are transferring energy from your hands to the book.
15. The faster an object moves, the greater its kinetic energy.
16. A scooter moving at 10 km/h has less kinetic energy than a motorcycle moving at the same speed.
17. Potential is energy stored due to an object's position.
18. A bowling ball sitting on a shelf has more potential energy than a basketball on the same shelf.
19. A sock lying on a dresser has more potential energy than a skateboard on the floor.

SECTION

2

Reinforcement

Energy Transformations

Directions: Fill in the blanks with the terms that best complete the statements.

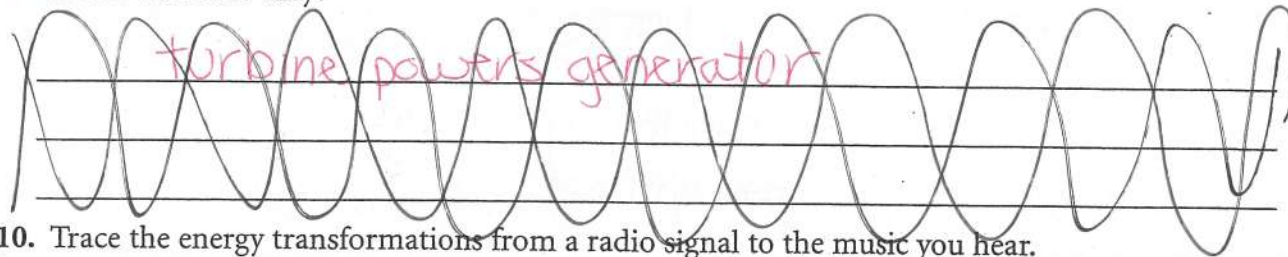
1. In every energy transformation, some heat is released.
2. When you climb a rope, you change chemical energy into kinetic energy.
3. Energy can never be created or destroyed, just changed in or moved form.
4. As temperature increases, thermal energy increases.
5. Fireworks change chemical into radiant and thermal sound energy.
6. When a pendulum swings, if it is not continuously pushed, it will stop eventually because some of its energy is changed into thermal energy.
7. In the muscle cells in your body, chemical energy is changed into kinetic energy.

Directions: Answer the following questions on the lines provided.

8. Trace the energy transformations from a hamburger you eat to riding your bike.

chemical → kinetic, thermal
(mechanical)

9. In most forms of generation of electrical energy in power plants, the last two steps are the same. What are they?



10. Trace the energy transformations from a radio signal to the music you hear.

electrical → kinetic → sound

↓

↓

thermal

thermal