

**Review and Reinforce**

# What Is Energy?

**Understanding Main Ideas**

Answer the following questions in the spaces provided.

1. How are work and energy related?

\_\_\_\_\_

2. How is power related to energy?

\_\_\_\_\_

3. What are the two basic kinds of energy?

\_\_\_\_\_

4. A girl who weighs 30 kg is inline skating at a speed of 5 m/s. What is the girl's kinetic energy?

\_\_\_\_\_

5. A hat that weighs 5 newtons is hanging from a hook 1.5 meters above the floor. How much gravitational potential energy does the hat have?

\_\_\_\_\_

**Building Vocabulary**

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- |                                       |   |
|---------------------------------------|---|
| 6. ___ energy                         | a. potential energy related to an object's height                     |
| 7. ___ kinetic energy                 | b. the ability to do work or cause change                             |
| 8. ___ potential energy               | c. energy associated with objects that can be compressed or stretched |
| 9. ___ gravitational potential energy | d. the energy an object has due to its motion                         |
| 10. ___ elastic potential energy      | e. energy that results from an object's position or shape             |

**Review and Reinforce**

# Forms of Energy

## Understanding Main Ideas

Answer the following questions in the spaces provided.

1. How can you determine an object's mechanical energy?

---



---



---

2. Name two forms of energy associated with the particles that make up objects.

---



---

## Building Vocabulary

Match each illustration with the correct form(s) of energy by writing the letter or letters of the form(s) of energy on the line at the left.

a. mechanical energy

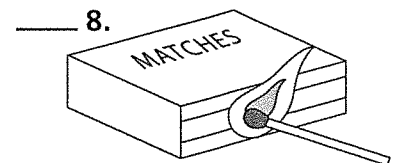
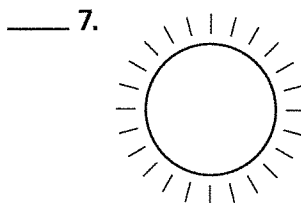
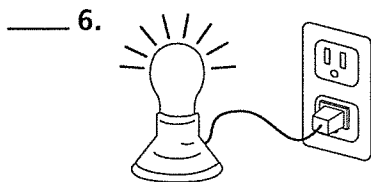
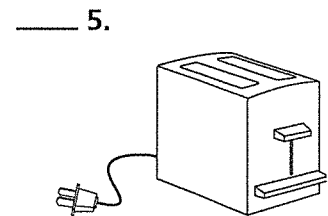
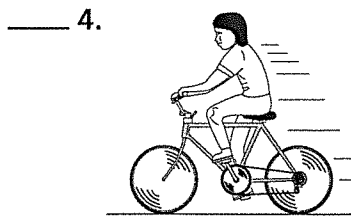
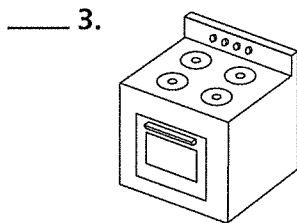
d. nuclear energy

b. electrical energy

e. chemical energy

c. thermal energy

f. electromagnetic energy



1. Use the outside corners, the center away from the gutter, or the center of your copy machine to copy onto letter-size paper.

**Review and Reinforce**

# Energy Transformations and Conservation

## Understanding Main Ideas

Study the illustration below and then read the following statements. If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.



1. \_\_\_\_\_ An energy transformation is occurring only at point 3.
2. \_\_\_\_\_ In this example, the law of conservation of energy says that the ball never loses kinetic energy.
3. \_\_\_\_\_ As the ball rises from point 1 to point 3, it slows down.
4. \_\_\_\_\_ The ball has the most potential energy at point 3.
5. \_\_\_\_\_ The ball has the most kinetic energy as it leaves point 2.

## Building Vocabulary

Write a definition for each of these terms on the lines below.

6. energy transformation

---



---

7. law of conservation of energy

---



---

Place the outside corner, the corner away from the dotted line, in the corner of your copy machine to copy onto letter-size paper.