

**STUDY GUIDE**

**Energy and Work**

Match the items in Column I with the terms or phrases in Column II. Write the letter of the correct term or phrase in the blank on the left.

**Column I**

- \_\_\_\_\_ 1. work
- \_\_\_\_\_ 2. energy
- \_\_\_\_\_ 3. mechanical energy
- \_\_\_\_\_ 4. potential energy
- \_\_\_\_\_ 5. kinetic energy
- \_\_\_\_\_ 6. law of conservation of energy

**Column II**

- a. total amount of kinetic and potential energy in a system
- b. energy may change from one form to another, but it cannot be created or destroyed under ordinary conditions
- c. stored energy
- d. transfer of energy through motion
- e. energy in the form of motion
- f. the ability to cause change

Use the definitions of kinetic energy and potential energy to decide what kind of energy each example listed below has. Write KE for kinetic energy and PE for potential energy.

Kinetic energy is energy in the form of motion. Potential energy is stored energy. The amount of potential energy in a sample of matter depends on its position or condition.

- \_\_\_\_\_ 1. a moving skateboard
- \_\_\_\_\_ 2. a rock at the edge of a cliff
- \_\_\_\_\_ 3. a glass of milk
- \_\_\_\_\_ 4. gasoline
- \_\_\_\_\_ 5. a basketball passing through the hoop
- \_\_\_\_\_ 6. a dry cell of a battery
- \_\_\_\_\_ 7. an acorn hanging from an oak tree
- \_\_\_\_\_ 8. a person climbing a ladder
- \_\_\_\_\_ 9. a piece of celery
- \_\_\_\_\_ 10. blowing wind

Complete the chart below by listing each of the examples of potential energy above in the correct column.

Gravitational Potential Energy	Chemical Potential Energy

NAME

Key

DATE

CLASS

## STUDY GUIDE

Chapter 5

## Energy and Work

Text Pages 110-117

Match the items in Column I with the terms or phrases in Column II. Write the letter of the correct term or phrase in the blank on the left.

## Column I

- F 1. work  
A 2. energy  
D 3. mechanical energy  
C 4. potential energy  
E 5. kinetic energy  
B 6. law of conservation of energy

## Column II

- a. total amount of kinetic and potential energy in a system  
b. energy may change from one form to another, but it cannot be created or destroyed under ordinary conditions  
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Kinetic energy is energy in the form of motion. Potential energy is stored energy. The amount of potential energy in a sample of matter depends on its position or condition.

- KE 1. a moving skateboard  
PE 2. a rock at the edge of a cliff (gravitational)  
PE 3. a glass of milk (chemical)  
PE 4. gasoline (chemical)  
KE 5. a basketball passing through the hoop  
PE 6. a dry cell of a battery (chemical)  
PE 7. an acorn hanging from an oak tree (gravitational)  
KE 8. a person climbing a ladder  
PE 9. a piece of celery (chemical)  
KE 10. blowing wind

Complete the chart below by listing each of the examples of potential energy above in the correct column.

Gravitational Potential Energy	Chemical Potential Energy