

NAME _____ DATE _____ CLASS _____

STUDY GUIDE

Chapter 4

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 | Column II |
|---|--|
| <u> D </u> 1. work | a. total amount of kinetic and potential energy in a system |
| <u> F </u> 2. energy | b. energy may change from one form to another, but it cannot be created or destroyed under ordinary conditions |
| <u> A </u> 3. mechanical energy | c. stored energy |
| <u> C </u> 4. potential energy | d. transfer of energy through motion |
| <u> E </u> 5. kinetic energy | e. energy in the form of motion |
| <u> B </u> 6. law of conservation of energy | 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 **KE**
- PE 2. a rock at the edge of a cliff
- PE 3. a glass of milk
- PE 4. gasoline
- 5. a basketball passing through the hoop **KE**
- PE 6. a dry cell of a battery
- PE 7. an acorn hanging from an oak tree.
- 8. a person climbing a ladder **KE**
- PE 9. a piece of celery
- 10. blowing wind **KE**

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

Gravitational Potential Energy	Chemical Potential Energy
2, 7	3, 4, 6, 9