

Energy Flow in Technological Systems: Match the Pairs

Energy exists in many forms and moves through technological systems in measurable ways. In this unit, you will examine how kinetic and potential energy relate to motion and position, how energy converts from one form to another, and why efficiency matters when designing devices that transform energy ([Outcome](#), [Outcome](#), [Outcome](#)). This matching game tests your understanding of the key concepts and quantities used to describe energy in mechanical systems.

How to play

Match each term on the left to its definition or description on the right. Write the letter of the correct answer next to each number. You have eight pairs to complete.

Match the pairs

Column A		Column B
A. kinetic	_____	1. Energy due to motion
B. potential	_____	2. Quantity with size and direction
C. thermal	_____	3. Energy due to relative position or condition
D. conversion	_____	4. Ratio of useful work to total energy input
E. efficiency	_____	5. Energy transformation
F. displacement	_____	6. Change in position
G. acceleration	_____	7. Heat energy
H. vector	_____	8. Change in velocity per unit time

Answer key

- **A** matches **1** (kinetic: Energy due to motion)
- **B** matches **3** (potential: Energy due to relative position or condition)
- **C** matches **7** (thermal: Heat energy)
- **D** matches **5** (conversion: Energy transformation)
- **E** matches **4** (efficiency: Ratio of useful work to total energy input)
- **F** matches **6** (displacement: Change in position)
- **G** matches **8** (acceleration: Change in velocity per unit time)
- **H** matches **2** (vector: Quantity with size and direction)