

Energy

Chapter 4: Energy · Topic 1

Key Concept

Different forms of energy include kinetic (motion), potential (stored), thermal (heat), chemical, and electrical energy.

Energy transformations occur constantly, like chemical energy in food converting to kinetic energy when we move.

The law of conservation of energy states that energy cannot be created or destroyed, only transformed from one form to another.

Understanding energy transformations helps us design efficient machines, appliances, and systems that use energy wisely.

Quick Revision Notes

- Energy forms include kinetic, potential, thermal, chemical, electrical.
- Energy constantly transforms between forms.
- Food's chemical energy becomes kinetic energy when moving.
- Conservation law: energy is never created or destroyed.
- It only transforms between forms.
- Understanding this helps design efficient systems.
- It applies to machines and appliances.
- Energy transformation is fundamental to physics.

Practice Questions

- 1 List five forms of energy with examples.
- 2 Discuss an everyday energy transformation.
- 3 Explain the law of conservation of energy.
- 4 Research how a car transforms chemical energy into motion.
- 5 Discuss why energy efficiency matters.
- 6 Explain energy transformation in your own words.