

Scanner (#884)

#2 pencil

Scientific calculator

Optional Materials: Any handwritten note sheets.

Vocabulary

Momentum	Impulse	Relationship of impulse and momentum	Elastic Collisions
Law of conservation of momentum	Inelastic collision	work	power
Energy	Mechanical energy	potential energy	kinetic energy
Elastic potential energy	Heat	Temperature	heating curve
Conservation of energy	Absolute zero	specific heat capacity	thermal
expansion	conduction	convection	radiation
Phases of matter	evaporation	condensation	boiling
Melting	freezing	Phase change	Celsius
Fahrenheit	Kelvin	power	

Calculations

1. Conversion temperatures in different scales.
2. Calculate latent heat of fusion and evaporation using heating curve.
3. Calculate total energy needed to raise the temperature of a material.
4. Calculate the energy needed for phase changes.
5. Calculate momentum and velocities using different examples.
6. Calculate change in momentum.
7. Calculate impulse and force of impact using change in momentum.

Important Concepts

8. Conservation of momentum
9. Conservation of energy
10. Impulse, time, and force
11. Phase changes.
12. Calorimetry.
13. Heating Curve.
14. Heat transfer.
15. Bimetallic strip.

Skills

16. Draw energy bar diagrams.
17. Read and analyze heating curves