

Quick Vocabulary

Chapter 8 Vocabulary

Lesson 1 Forms of Energy

chemical energy stored in and released from the bonds between atoms

electric energy in an electric current

energy ability to cause change

kinetic energy energy due to motion

mechanical energy sum of potential energy and kinetic energy in a system

nuclear energy stored in and released from the nucleus of an atom

potential energy stored energy due to the interaction between objects or particles

radiant energy carried by electromagnetic waves

sound energy carried by sound waves

speed distance an object moves per unit of time

thermal energy sum of kinetic energy and potential energy of the particles that make up an object

wave disturbance that transfers energy from one place to another without transferring matter

Lesson 2 Energy Transfer

closed system does not exchange matter or energy with the environment

energy transfer process of energy moving from one object to another without changing form

energy transformation process in which one form of energy is converted to another form of energy

law of conservation of energy states that energy can be transformed from one form to another, but it cannot be created or destroyed

open system exchanges matter or energy with the environment

nonrenewable energy resource available in limited amounts or is used faster than it can be replaced in nature

renewable energy resource is replaced as fast as, or faster than, it is used

resource stock or supply of materials, money, or other assets that can be used as needed

work transfer of energy that occurs when a force makes an object move in the direction of the force while the force is acting on the object

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Lesson 3 Particles in Motion

conduction transfer of thermal energy by collisions between particles in matter

convection transfer of thermal energy by the movement of particles from one part of a material to another

equilibrium state in which temperatures of materials that are in contact are the same

heat movement of thermal energy from a region of higher temperature to a region of lower temperature

radiation transfer of thermal energy by electromagnetic waves

sublime to change from a solid state to a gas state without passing through the liquid state

temperature measure of the average kinetic energy of the particles in a material

thermal conductor material in which thermal energy moves quickly

thermal insulator material in which thermal energy moves slowly

vaporization change of state from a liquid to a gas