Key Terms

antinode location of maximum amplitude in standing waves

constructive interference when two waves arrive at the same point exactly in phase; that is, the crests of the two waves are precisely aligned, as are the troughs

destructive interference when two identical waves arrive at the same point exactly out of phase that is precisely aligned crest to trough

inversion vertical flipping of a wave after reflection from a fixed end

longitudinal wave wave in which the disturbance is parallel to the direction of propagation

mechanical wave wave that requires a medium through which it can travel

medium solid, liquid, or gas material through which a wave propagates

nodes points where the string does not move; more generally, points where the wave disturbance is zero in a standing wave

periodic wave wave that repeats the same oscillation for several cycles and is associated with simple harmonic motion

pulse wave sudden disturbance with only one wave or a few waves generated

reflection change in direction of a wave at a boundary or fixed end

refraction bending of a wave as it passes from one medium to another medium with a different density

standing wave wave made by the superposition of two waves of the same amplitude and wavelength moving in opposite directions and which appears to vibrate in place

superposition phenomenon that occurs when two or more waves arrive at the same point

transverse wave wave in which the disturbance is perpendicular to the direction of propagation

wave disturbance that moves from its source and carries energy

wave velocity speed at which the disturbance moves; also called the propagation velocity or propagation speed

wavelength distance between adjacent identical parts of a wave