

DEFINITIONS FOR WAVES

A MECHANICAL TRAVELING WAVE is a periodic disturbance in some medium that carries energy away from a vibrating source.

The WAVE SPEED (v) is the speed of the advancing energy. The WAVELENGTH (λ) is the distance the energy travels during one complete vibration of the source (*i.e.* one PERIOD).

In a TRANSVERSE WAVE, the particles of the medium are displaced perpendicular to the direction of propagation of the wave.

The AMPLITUDE (A) of the wave at location \underline{r} is the maximum distance from equilibrium for the particle of the medium at location \underline{r} .

In a LONGITUDINAL WAVE, the particles of the medium are displaced parallel to the direction of propagation of the wave.