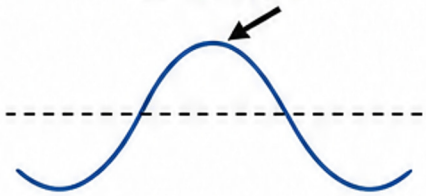
WAVES

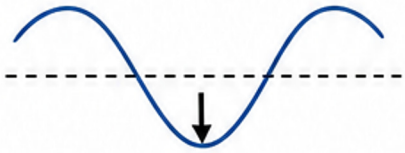
VOCABULARY AND DIAGRAM LABELS

CREST



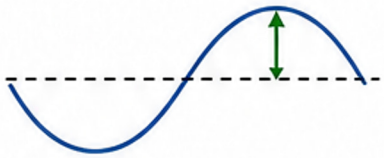
The highest point on a wave.

TROUGH



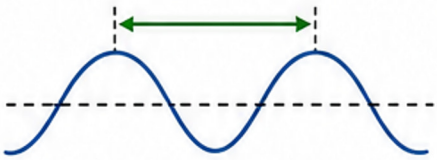
The lowest point on a wave.

AMPLITUDE



The maximum displacement from the rest position.

WAVELENGTH (λ)

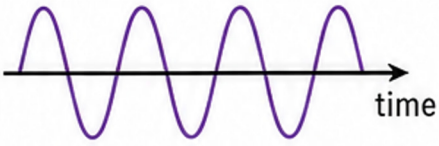


The distance between identical points on successive waves.

PERIOD (T)

The time taken for one complete wave.

FREQUENCY (f)



The number of waves that pass a point each second.
Unit: hertz (Hz)

WAVE SPEED (v)

$$v = f\lambda$$

The speed at which a wave travels.
Unit: m/s

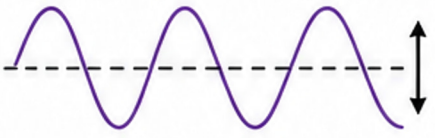
REST POSITION (EQUILIBRIUM)

The central position around which the wave oscillates.

DISPLACEMENT

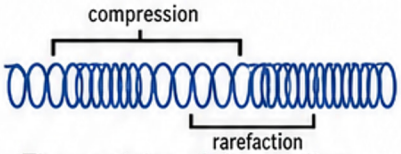
The distance and direction of a point on the wave from the rest position at a given time.

TRANSVERSE WAVE



The particles of the medium vibrate perpendicular to the direction of energy transfer.

LONGITUDINAL WAVE



The particles of the medium vibrate parallel to the direction of energy transfer.

COMPRESSION

A region in a longitudinal wave where particles are close together.

RAREFACTION

A region in a longitudinal wave where particles are far apart.

ENERGY TRANSFER

Waves transfer energy from one place to another without transferring matter.

MEDIUM

The substance or material through which a wave travels.