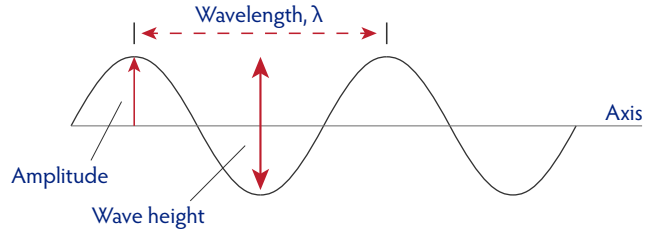


Definitions

- **Amplitude** - The distance from the axis to the top of a peak or bottom of a trough.
- **Axis** - The vertical midpoint of the wave; the direction along which the wave moves.
- **Frequency (ν or f)** - The number of waves that pass a point in a second. (The ν symbol is the Greek "nu," not a Roman "v.") Frequency is measured in waves per second, called "**Hertz**" (Hz).
- **Period (T)** - The time between adjacent waves, measured in seconds.
- **Waveheight** - The vertical distance between the bottom of the troughs and the top of the peaks. This is equal to twice the amplitude.
- **Wavelength (λ)** - The distance between adjacent waves. Usually measured in meters.



Numbers

Speed of sound = 343 m/s (at 20°C and 1 atmosphere)

Speed of light, $c = 300,000 \text{ km/s} = 3 \times 10^8 \text{ m/s}$ (near enough, anyway)

Equations

$$f = \frac{\text{cycles}}{\text{seconds}} = \frac{\text{waves}}{\text{seconds}}$$

$$v = \lambda f \quad v = \text{velocity, m/s; } \lambda = \text{wavelength, m; } f = \text{frequency, Hz}$$

$$T = \frac{1}{f} \quad T = \text{period, seconds; } f = \text{frequency, Hz}$$

$$\lambda = v T \quad \lambda = \text{wavelength, m; } v = \text{velocity, m/s; } T = \text{period, seconds}$$