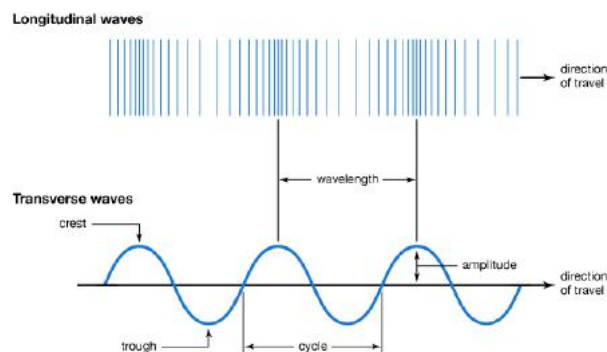


**Section A: Vocabulary**

amplitude	The size of vibrations or the maximum distance a particle moves away from its resting position when a wave passes.
frequency	The number of vibrations (or the number of waves) per second.
hertz (Hz)	The unit for frequency. One hertz is one wave per second.
medium	Any substance through which something travels.
period	The time taken for one complete wave to pass a point. It is measured in seconds.
sound waves	Vibrations in the particles of a solid, liquid or gas, which are detected by our ears and 'heard' as sounds. Sound waves are longitudinal waves.
wavelength	The distance between a point on one wave and the same point on the next wave.
interface	The boundary between two materials.
normal	An imaginary line at right angles to a surface where a ray of light hits it.
absorb	When a wave disappears as the energy it is carrying transfers to the medium through which it is travelling.

**Section B: waves**

Longitudinal wave - A wave where the particles vibrate in the same direction as the wave is travelling.



Transverse wave - A wave where the vibrations are at right angles to the direction the wave is travelling.

$$\text{wave speed} = \frac{\text{distance}}{\text{time}}$$

$$v = \text{wave speed in m/s}$$

$$x = \text{distance in m}$$

$$t = \text{time in s}$$

$$\frac{x}{v \times t}$$

$$\text{wave speed} = \text{frequency} \times \text{wavelength}$$

$$v = \text{wave speed in m/s}$$

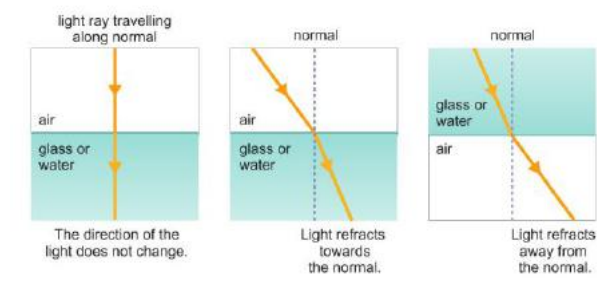
$$f = \text{frequency in Hz}$$

$$\lambda = \text{wavelength in m}$$

$$\frac{v}{f \times \lambda}$$

**Section C: Refraction**

Refraction - The change in direction when waves go from one medium to another.


**Higher**
