

The maximum distance the medium carrying the wave moves away from rest position	Brightness	Loudness	The angle between the incident ray and the normal line
Amplitude	Amplitude of a light wave	Amplitude of a sound wave	Angle of incidence
Angle between the reflected ray and the normal line	Angle between the refracted ray and the normal line	Where an objects appears to be	Red Orange Yellow Green Blue Indigo Violet
Angle of reflection	Angle of refraction	Apparent position	Colours of visible light
Part of a longitudinal wave where the particles are close together	Light is incident at interface at angle at/greater than the critical angle	Light travels from optically more to optically less dense medium	Light focuses to a single point
Compression	Condition for Total Internal Reflection	Condition for Total Internal Reflection	Converging light rays
The maximum upward displacement	Smallest angle at which a light passing from one medium to less refractive medium can be totally reflected	When a wave passes a barrier it bends and spreads out	Light hits an object and reflects in lots of different directions
Crest	Critical angle	Diffraction around a barrier	Diffuse reflection

Each colour refracts slightly differently	The distance from the mirror/lens to the image	The distance from the mirror/lens to the object	Light goes away from a focal point/rays never meet
Dispersion	Distance of image, d_i	Distance of object, d_o	Diverging light rays
Virtual rays	A reflected sound wave	The process of using reflected sound waves to find objects	No change
Dotted lines are used for	Echo	Echolocation	Effect of diffraction on wavelength
No change in speed if travelling the same medium	The entire range of electromagnetic waves	Waves that can transfer energy without going through a medium	frequency = $1/\text{Time period}$ ($f = 1/T$)
Effect of reflection on wave speed	Electromagnetic spectrum	Electromagnetic wave	Equation for the frequency of a wave
speed = distance/time ($v = d/t$)	The number of waves that pass a given point each second	The location in space where it appears that light diverges from	The direction that a wave travels as it approaches a boundary
Equation for the speed of a wave	Frequency	Image	Incident ray

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A wave in which the vibration of the medium is parallel to the direction the wave travels	Waves that require a medium through which to travel are called ...	The material through which a wave travels	Optical instrument that reflects waves
Longitudinal wave	Mechanical waves	Medium	Mirror
Imaginary line drawn perpendicular to a boundary	Everything that can be seen is seen only when light from this travels to our eyes	The greater this value that a material has, the slower that a wave will move through it.	Rays that neither converge nor diverge
Normal	Object	Optical density	Parallel rays

The time required for one full wavelength to pass a certain point	At right angles to a given line or plane	A flat mirror	Shape that separates white light into a spectrum of colours
Period	Perpendicular	Plane mirror	Prism
A single short disturbance that moves from one position to another	Part of a longitudinal wave where the particles are spread apart	Diagram that traces the path that light takes in order for a person to view a point on the image of an object	Image is formed by actual rays of light and can be projected
Pulse	Rarefaction	Ray diagram	Real image
Colour with longer wavelength	Change in direction of a wave upon striking the interface between two materials	Shows the direction that light travels after it has crossed over the boundary	Deviation of the path of a wave as it passes across the boundary separating two media
Red light	Reflection	Refracted ray	Refraction
Ray bends towards normal	Ray bends away from normal	Vibrating matter	If a bundle of light rays is incident upon a smooth surface
Refraction from less dense to more dense medium	Refraction from more dense to less dense medium	Sound is produced by	Specular reflection

Around 300,000 km/s	Reflection of a ray at the boundary of two media, when the ray comes from greater refractive index	A wave that moves the medium in a direction perpendicular to the direction in which the wave travels	The maximum downward displacement
Speed of light	Total internal reflection	Transverse wave	Trough
Transverse waves, longitudinal waves	An empty space in which there is no air or other gas	A repeated back and forth or up and down motion	Colour with shorter wavelength
Types of waves	Vacuum	Vibration	Violet light
Image that cannot be captured on a screen / has diverging rays	A disturbance that transfers energy from place to place	Speed = frequency x wavelength $v = f\lambda$	Distance between two corresponding parts of a wave
Virtual image	Wave	Wave formula	Wavelength