The maximum displacement of particles of the medium from their mean positions during the propagation of a wave	Angle of an incident (arriving) ray or particle to a surface; measured from a line perpendicular to the surface (the normal)	Angle of a reflected ray or particle from a surface; measured from a line perpendicular to the surface (the normal)	Lines of constructive interference
Amplitude (of waves)	**Angle of incidence**	**Angle of reflection**	**Antinodal lines**
A point of maximum amplitude because of constructive interference of waves	A part of a longitudinal wave in which the density of the particles of the medium is higher than the normal density	Two waves arriving at the same place, at the same time and in phase, add amplitudes to create a wave with a larger amplitude	The point of maximum positive displacement on a transverse wave is called a crest
Antinode	**Compression**	**Constructive interference**	**Crest**
Limit to the angle of incidence when all light rays are reflected internally	A complete vibration	A nonlinear scale of loudness based on the ratio of the intensity level of a sound to the intensity at the threshold of hearing	Two waves arriving at the same point at the same time out of phase add their amplitudes to create zero total disturbance.
Critical angle	**Cycle**	**Decibel scale**	**Destructive interference**
Wave changes direction	Bending of waves around a barrier/through a gap	Series of fine slits or lines used to deviate waves (e.g. Light)	Light rays reflected in many random directions, as opposed to the parallel rays reflected from a perfectly smooth surface
Deviates	**Diffraction**	**Diffraction grating**	**Diffuse reflection**

Refraction in e.g. A prism causes white light to split up into colours	A reflected sound that can be distinguished from the original sound, which usually arrives 0.1 s or more after the original sound	Unit of frequency; equivalent to one cycle per second	Matter emitting visible light as a result of high temperature e.g. a light bulb/flame because of high temperature
Dispersion	**Echo**	**Hertz**	**Incandescent**
Moving towards (e.g. Incident light strikes a mirror)	Line representing the direction of motion of incoming light approaching a boundary	Waves about to collide with boundary / interface	The ratio of the speed of light in a vacuum to the speed of light in a material
Incident	**Incident ray**	**Incoming waves**	**Index of refraction**
Sound waves having too low a frequency to be heard by the human ear; sound having a frequency of less than 20 Hz	A measure of the energy carried by a wave	Boundary between two different media	Effect occurring when waves meet
Infrasonic	**Intensity**	**Interface**	**Interference**
The wave in which the particles oscillate in the same direction as the direction of propagation of wave e.g. sound waves	Related directly to the amount of energy of the vibrating source	The total amount of energy radiated into space each second from the surface of a star	An object or objects that produce visible light; for example star/light bulbs/burning materials
Longitudinal waves	**Loudness**	**Luminosity**	**Luminous**

The waves, which need a material medium for their propagation e.g. Sound waves, water waves	Lines of destructive interference	A point in a stationary wave without any disturbances. Destructive interference occurs at nodes. Nodes are half a wavelength	Sounds made up of groups of waves of random frequency and intensity
Mechanical wave	**Nodal lines**	**Node**	**Noise**
A line perpendicular to the surface of a boundary	The time required for one complete cycle of a wave	When wave collides with a boundary / interface the reflected wave has same speed/amplitude as incident wave but is upside down	Frequency of sound (low pitch = low frequency, high pitch = high frequency)
Normal	**Period (wave)**	**Phase change**	**Pitch**
A wave of short duration confined to a small portion of the medium at any given time	A part of a longitudinal wave in which the density of the particles of the medium is less than the normal density	An image generated by a lens or mirror that can be projected onto a screen	A line representing direction of motion of light reflected from a boundary
Pulse	**Rarefaction**	**Real image**	**Reflected ray**
The change when light, sound, or other waves bounce backwards off a boundary	A change in the direction of travel of light, sound, or other waves crossing a boundary	Apparent increase in volume caused by reflections, usually arriving within 0.1 second after the original sound	Gap /Aperture
Reflection	**Refraction**	**Reverberation**	**Slit**

Sound waves that pile up into a shock wave when a source is traveling at or faster than the speed of sound	Longitudinal wave that requires a medium (travels at 340 ms -1 in air)	The dispersion of white light into its component colours ROYGBIV for visible light	When two or more waves occupy the same position at the same time, they become 'overlapped' and show a combined pattern
Sonic boom	**Sound waves**	**Spectrum**	**Superimposed**
Addition of wave pulses	Electromagnetic waves with frequencies in the infrared range lower than the red end of the visible spectrum	The time taken by a wave to travel through a distance equal to its wavelength is called its time period	The time taken to complete one oscillation is called the time period of an oscillation.
Superposition of pulses	**Thermal radiation**	**Time Period (of a wave)**	**Time Period (of an oscillation)**
Occurs when a wave arrives at a boundary at the critical angle or beyond and is reflected back	A wave in which the particles of the medium oscillate in a direction perpendicular of the direction of propagation of wave	The point of maximum negative displacement on a transverse wave is called a trough	Sound waves too high in frequency to be heard by the human ear; frequencies above 20,000Hz
Total internal reflection	**Transverse waves**	**Trough**	**Ultrasonic**
An image where light rays appear to originate from a mirror or lens; this image cannot be projected on a screen	A disturbance or oscillation that moves through a medium	Top of the wave	Direction which wave is travelling (wave front will be at 90 o to this)
Virtual image	**Wave**	**Wave crest**	**Wave direction**

Point on wave where waves have the same path length from the source	The movement of a disturbance produced in one part of a medium to another involving the transfer of energy but not the transfer of matter	The time required for two successive crests or other successive parts of the wave to pass a given point	The distance traveled by a wave in one second is called the wave velocity
Wave front	**Wave motion**	**Wave period**	**Wave velocity**
The distance between the two nearest points on a waves (two adjacent crests or two adjacent troughs)			
Wavelength			