

### **Year 8 – Waves Glossary**

<b>Key term</b>	<b>Definition</b>
Amplitude	The distance from the middle to the top or bottom of a wave.
Audible range	The range of frequencies that an individual can hear.
Boundary	Where 2 different materials (media) meet.
Compression	The part of a longitudinal wave where the air particles are close together.
Constructive interference	When 2 waves meet and add up to create a bigger wave.
Destructive interference	When 2 waves meet and cancel each other out.
Diffraction	The spreading out of waves around obstacles.
Echo	A reflection of a sound wave by an object.
Echolocation	Using reflected sound waves to locate objects/obstacles.
Electromagnetic spectrum	The range of frequencies that an electromagnetic wave can have.
Frequency	The number of complete waves/vibrations/oscillations produced in one second. Measured in Hertz (Hz).
Gamma ray	Wave with the highest frequency in the electromagnetic spectrum.
Hertz	The unit of frequency (Hz).
Infrared	An electromagnetic wave given off by the sun that causes heating.
Ionisation	The removal of an electron from an atom. Can lead to mutations and cancer if it occurs in DNA.
Longitudinal wave	A wave where the oscillations are parallel to the direction of energy transfer.
Medium	The material a wave passes through (e.g. water, air, glass etc).

Microwave	An electromagnetic wave used for heating and communication.
Oscillation	Something that moves backwards and forwards.
Parallel	Two lines going in the same direction; they will never meet or get further away from each other.
Peak	The top of a wave.
Perpendicular	When two lines are at a right angle (90 degrees) to each other.
Pulse	A short burst of a wave.
Radio wave	The wave with the lowest frequency in the electromagnetic spectrum, used for communicating.
Rarefaction	The part of a longitudinal wave where the air particles are spread out.
Reflection	The change in direction of a ray or wave after it hits a surface and bounces off.
Refraction	The change in direction of a ray or wave as a result of its change in speed.
Sound	A longitudinal wave, i.e. a series of compressions and rarefactions that move through a medium.
Spectrum	A scale between two extreme points, used to classify something in terms of its position between those two points.
Transverse	A wave where the oscillations are perpendicular to the direction of energy transfer.
Trough	The bottom of a wave.
Ultrasound	A sound wave with a frequency greater than 20,000Hz (beyond the range of human hearing).
Ultraviolet	An electromagnetic wave present in sunlight, with a slightly higher frequency than visible light (invisible to the human eye).
Visible light	An electromagnetic wave in the centre of the electromagnetic spectrum. Visible to the human eye.
Wave	An oscillation that transfers energy, without the transfer of any matter.
Wavelength	The distance between two identical points on a wave.
X-ray	An electromagnetic wave used for producing images of bones and tissue.

