

Year 8 key physics (P4)facts

Transverse waves	Energy transfer and right angles (perpendicular) to the motion of the wave. Eg electromagnetic waves
Longitudinal waves	Energy transfer is parallel to the motion of the wave. Eg sound waves
Longitudinal waves	Need particles to travel through
Law of reflection	Angle of incidence is equal to the angle of reflection
Refraction	Change in direction of light at the boundary between two different materials of different densities
Light waves	These can be reflected, refracted or diffracted
Dispersion	Spreading out of waves
Frequency	The number of waves passing in one second. Unit is hertz (Hz)
Amplitude	Height of a wave from the mid- point to the crest/trough
Lens	A transparent tool that changes the direction of light
Vacuum	A volume that contains no matter
Spectrum	A series of similar waves arranged in order of wavelength or frequency.
Retina	The light sensitive area on the back of the eye. Light must be focussed on the retina in order to see clearly.
Sound waves	These are caused by vibrations, so need particles to transfer sound energy.
Sound waves	Can be reflected (Echo) refracted or diffracted
Ultrasound	Above human hearing range (above 20,000 Hz)