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| 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 |

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| 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 |

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| 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 |

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| <i>Image that cannot be captured on a screen / has diverging rays</i> | <i>A disturbance that transfers energy from place to place</i> | <i>Speed = frequency x wavelength $v = f\lambda$</i> | <i>Distance between two corresponding parts of a wave</i> |
| <i>Virtual image</i> | <i>Wave</i> | <i>Wave formula</i> | <i>Wavelength</i> |
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