# 11 Physics 3 The World Communicates - Part 3



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| 1. | **plane mirror** | a flat mirror |
| 2. | **propagate** | to travel through a medium or space |
| 3. | **pulse** | a single disturbance |
| 4. | **rarefaction** | the region in a longitudinal wave where the particles are spread out further than their equilibrium positions |
| 5. | **ray** | a line drawn at right angles to a wave front |
| 6. | **reflection** | the bouncing back of a wave or particle from a boundary |
| 7. | **refraction** | the bending of a wave as it passes from one medium into another, resulting from a change in speed of the wave in the two media |
| 8. | **refractive index** | the ratio of the sine of the angle of incidence to the sine of the angle of refraction, for a wave travelling from one medium into another |
| 9. | **Snell's law** | a law relating the angle of incidence to the angle of refraction; n = sin i / sin r |
| 10. | **superposition** | the combination of two or more waves by adding their displacements to produce a resultant wave |
| 11. | **total internal reflection** | the reflection of all the light falling on a boundary when the angle of incidence exceeds the critical angle |
| 12. | **transverse wave** | a wave in which the particles vibrate at right angles to the direction of energy transfer |
| 13. | **trough** | a region of downwards displacement in a transverse wave |
| 14. | **ultraviolet** | electromagnetic waves with wavelengths shorter than violet light |
| 15. | **velocity** | the speed of a wave in the direction of energy transfer |
| 16. | **volume** | the degree of loudness of a sound |
| 17. | **wave** | a carrier of energy; does not transfer matter |
| 18. | **wavefront** | a line joining points in phase on a wave |
| 19. | **wavelength** | the distance between two corresponding successive points on a wave |
| 20. | **x-ray** | high frequency electromagnetic waves of high penetration |