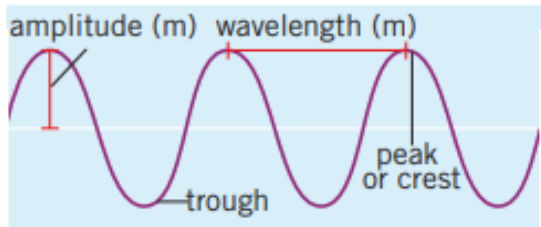


Keywords	Definition
<b>Transverse</b>	The matter oscillates (moves) up and down and energy is transferred perpendicular. E.g. light
<b>Longitudinal</b>	The matter oscillates (moves) backwards and forwards and energy is transferred parallel to this. E.g. sound
<b>Amplitude</b>	The distance from the resting position of a wave to the top of a peak.
<b>Frequency</b>	The number of waves per second (measured in Hertz)
<b>Wavelength</b>	The length of a wave, measured peak to peak in a transverse waves, compression to compression in a longitudinal wave
<b>Compression</b>	An area of high pressure in a longitudinal wave. Here the particles are pushed close together.
<b>Rarefaction</b>	An area of low pressure in a longitudinal wave. Here the particles are far apart. .
<b>Peak</b>	The highest point of a transverse wave
<b>Pitch</b>	Can be high or low. An example of a high pitched sound would be a whistle.

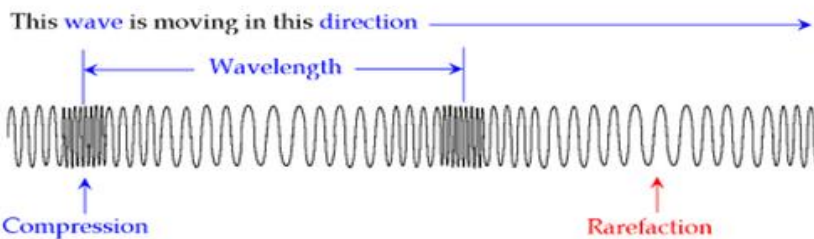
### Transverse Wave



Waves can add together or cancel each other out. This is called superposition.

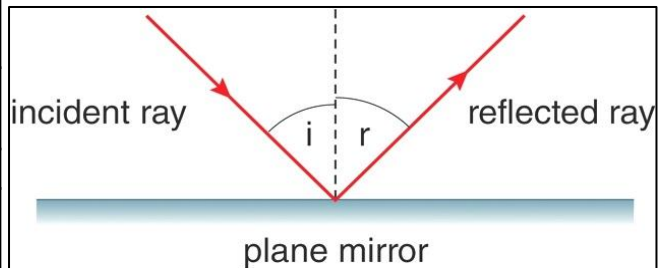


### Longitudinal Wave



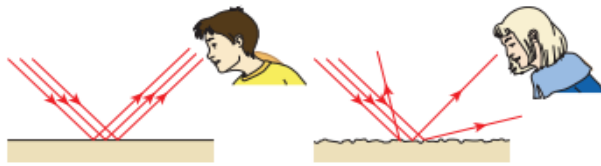
## Waves Knowledge Organiser

### Reflection

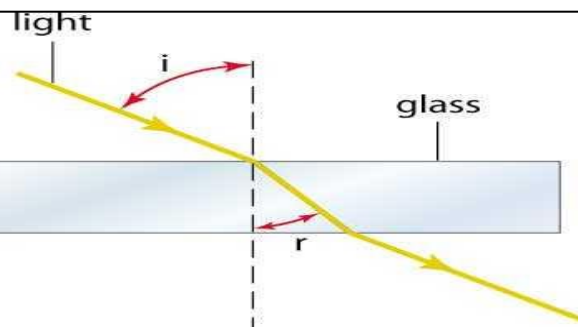


The angle of incidence equals the angle of reflection.  
The normal is a line drawn at right angles

- For light reflecting off a smooth surface will form an image is called **specular reflection**
- Reflection off of a rough surface will not form an image and is know as **diffuse scattering**

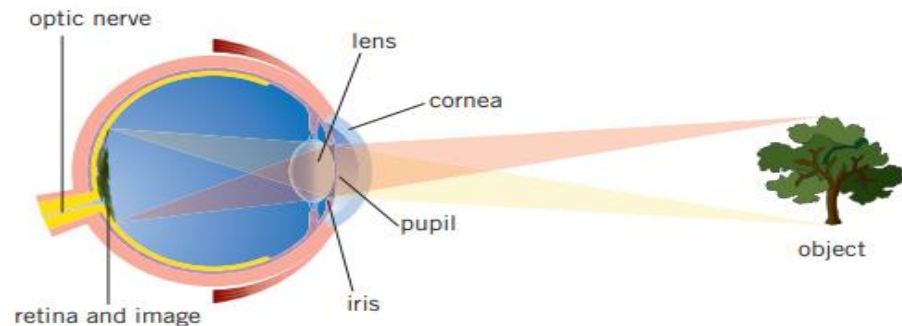


### Refraction



Waves pass through a different medium and change direction.

## The Eye

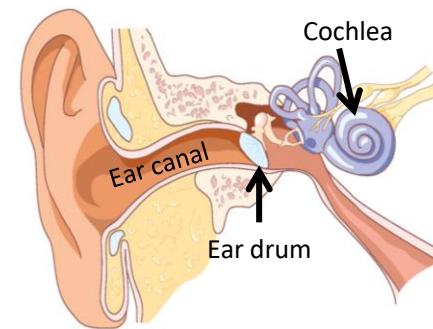


### Colour



- Light can be split using a prism and is made up from different colours of light
- Primary colours** can be mixed in order to form **secondary colours**
- Objects appear a certain colour as they absorb all other colours of light, but reflect the colour of light which they appear.

### The Ear



### Characteristic of sound waves

Loudness of a sound increases with the amplitude of the sound wave.

The smaller the amplitude of the wave, the quieter the sound.

