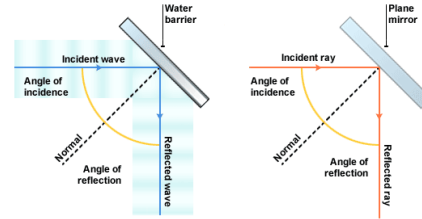
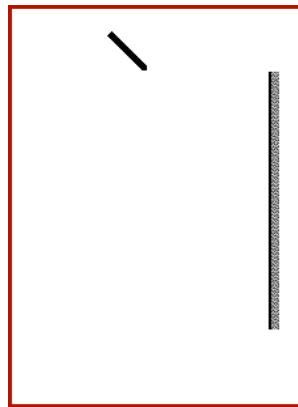


Waves Part 2:
Reflection, Refraction,
diffraction, and interference

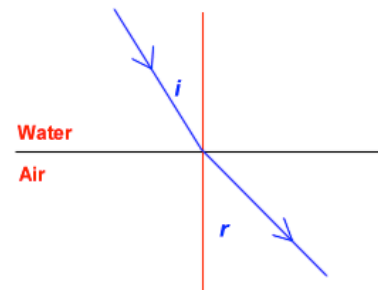
Reflection is when an object or wave hits a surface through which it cannot pass, it bounces back



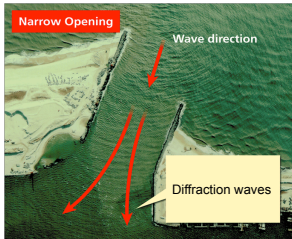
According to the law of reflection, the angle of incidence is equal to the angle of reflection.



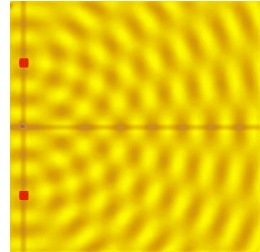
Refraction occurs when a wave enters a new medium at an angle, one side of the wave changes speed before the side, causing the wave to bend.



Diffraction occurs when a wave moves around a barrier or through an opening in a barrier, it bends and spreads out.



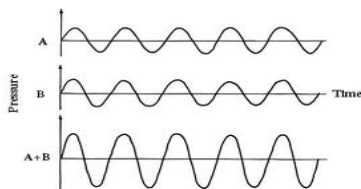
Interference is when two or more waves overlap and combine to form a new wave.



There are two types of interference: constructive and destructive.

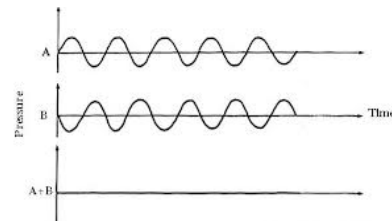
Constructive interference happens when an interference occurs and the new wave that forms is equal to the sum of the amplitudes of the original waves.

(ex. the sound would get louder)



Destructive interference is when interference occurs and the waves subtract from each other as they interact.

(ex. the sound decreases in loudness)



Resonance is when an object vibrates by absorbing energy at its natural frequencies.

- 1) Every object has its own resonant frequency - you hear this when you tap a glass for example.
- 2) When a singer produces the exact frequency of the glass, it will vibrate. If the glass vibrates enough, it will shatter.



Drag the labels into their correct positions.

OPTIONS RESULTS START RESET

reflection amplitude trough wavelength

diffraction total internal reflection refraction crest

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