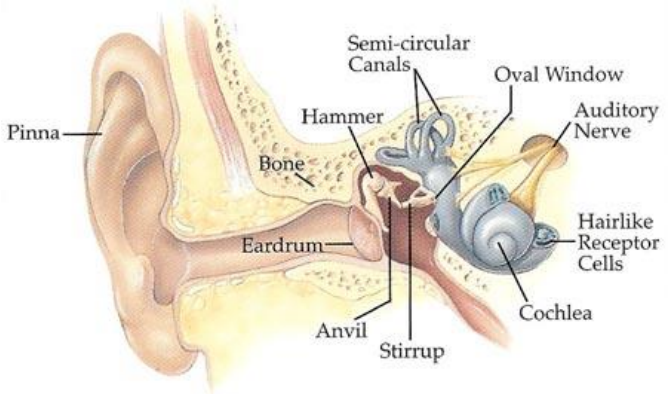
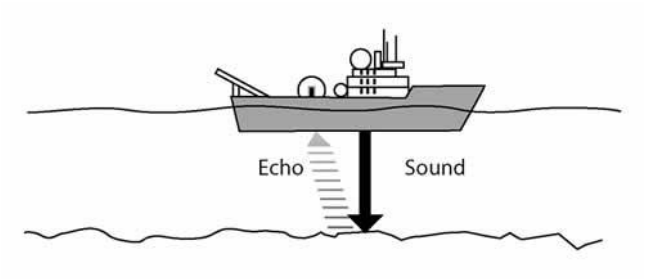
Sound Knowledge Organiser

The Ear



An Echo: used as echo location



Waves:

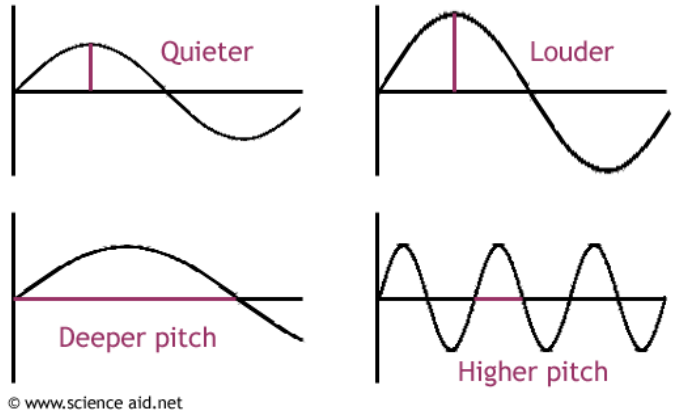
Amplitude = Loudness (in Decibels dB)

Pitch = how high or low the note of the sound is. High pitch = High frequency

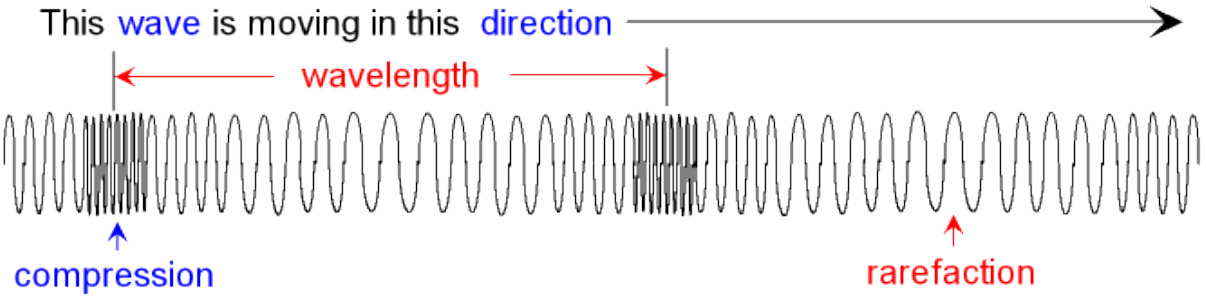
Frequency = number of waves per second (in Hertz Hz)

Wave speed (m/s) = Frequency X wavelength (m) or $v = f.\lambda$

$$\text{Frequency} = \frac{1}{\text{Time of 1 wave}}$$

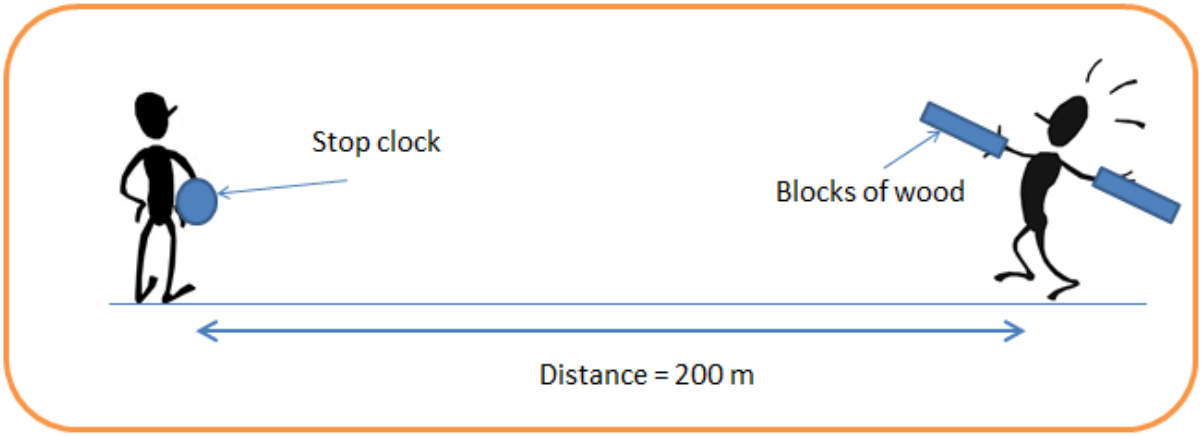


Sound is a Longitudinal wave: it needs particles.

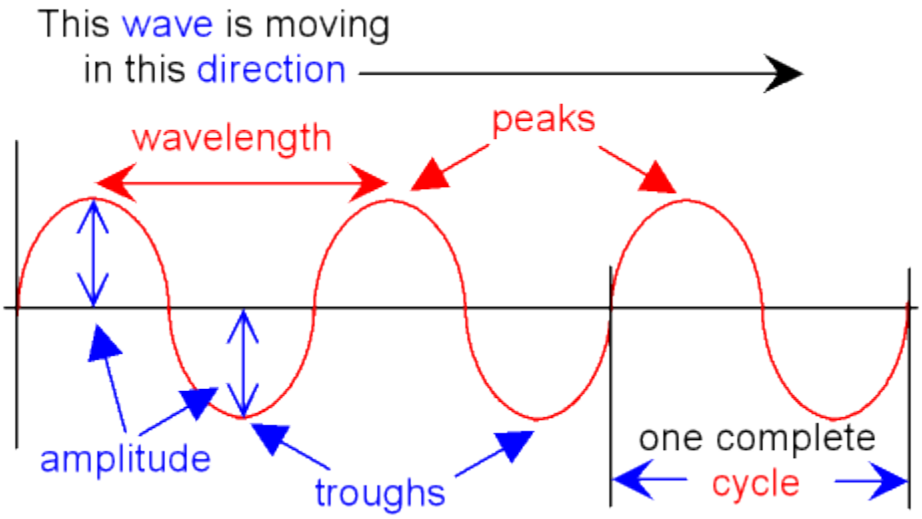


Measuring the speed of sound: Speed (m/s) = distance (m)

Time (s)



Describing a wave. An oscilloscope is used to draw a wave.



References: http://ahsprotect.com/the-ear/ http://www.oicinc.com/history_sonars.html http://ffden-2.phys.uaf.edu http://www.gcsescience.com/ https://sites.google.com/a/perthgrammar.co.uk/