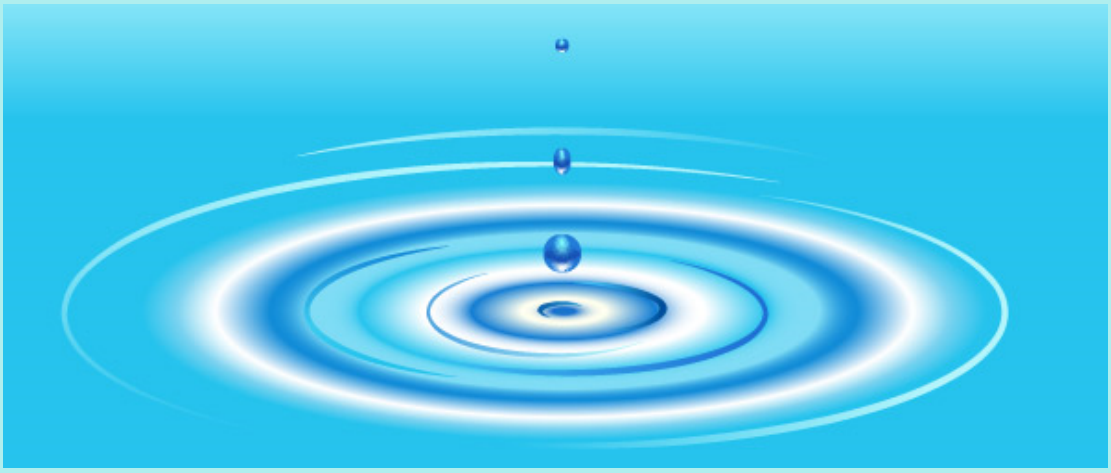
WAVES

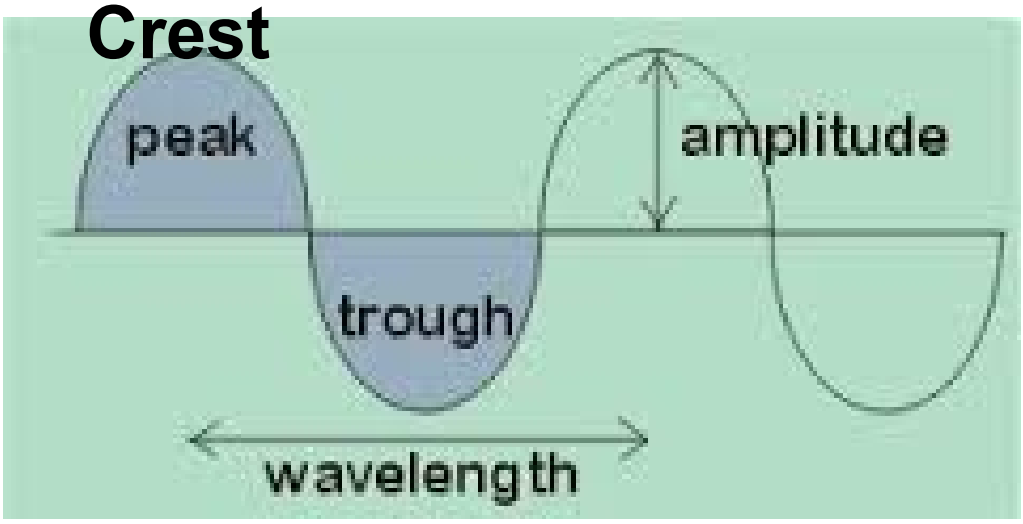


Take out looseleaf:

Heading: Wave Notes

Jan 30-7:50 PM

PARTS OF A WAVE



Bill Nye Waves: 3:06
http://www.youtube.com/watch?v=pMIdzILycTY

Nov 6-9:37 PM

Wave: a traveling disturbance that carries energy from one place to another

- a wave travels through a substance called the **medium**

Example: Water is the medium for ocean waves.
Air is the medium for sound waves.

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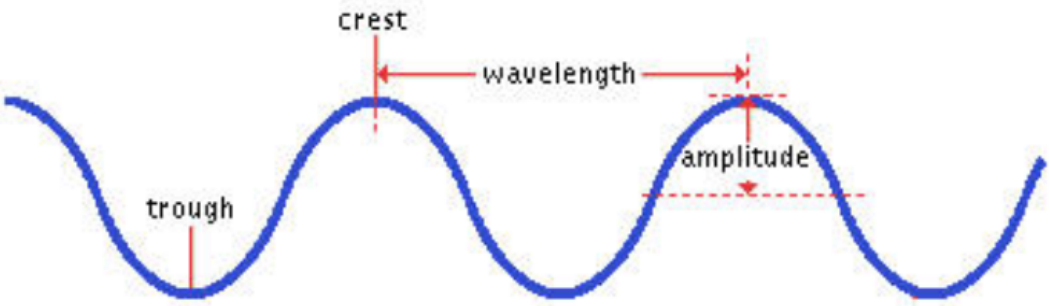

Figure 2: Transverse Wave

Wavelength: measured from crest to crest or trough to trough.

Amplitude: distance from crest to resting position of the medium

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amplitude and sound interactive

http://ny.pbslearningmedia.org/asset/lsps07_int_amplitude/

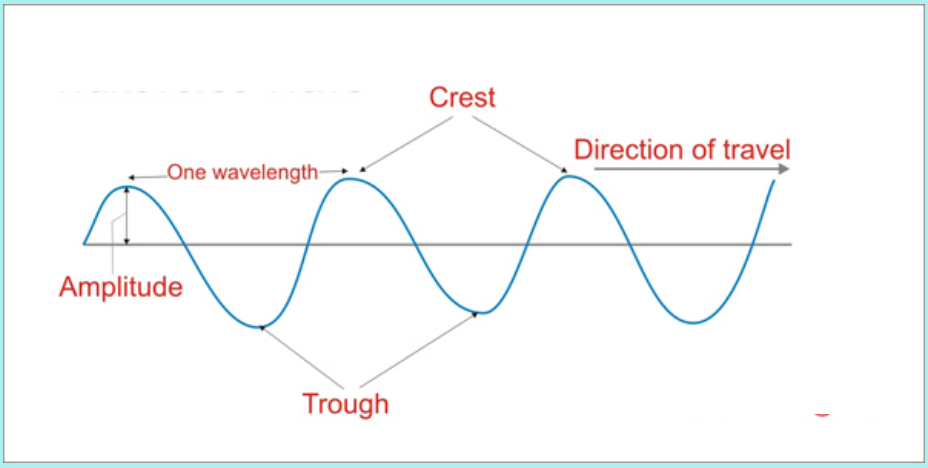
Nov 12-7:36 AM

All waves have **amplitude**,**wavelength** and **frequency**.

Amplitude: the height of the crest or the depth of the trough from the undisturbed surface

Wavelength: the distance between two crests or two troughs

Frequency: the number of waves per unit time



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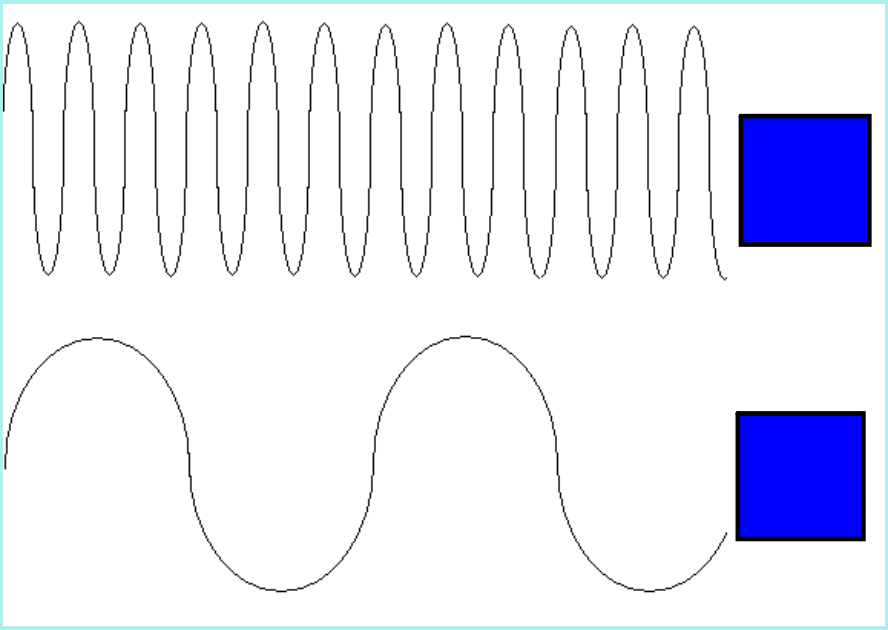
Frequency is measured in hertz (Hz).
1 Hz = 1 wave/second



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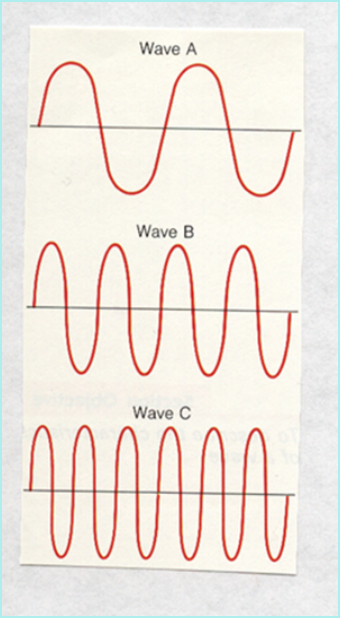
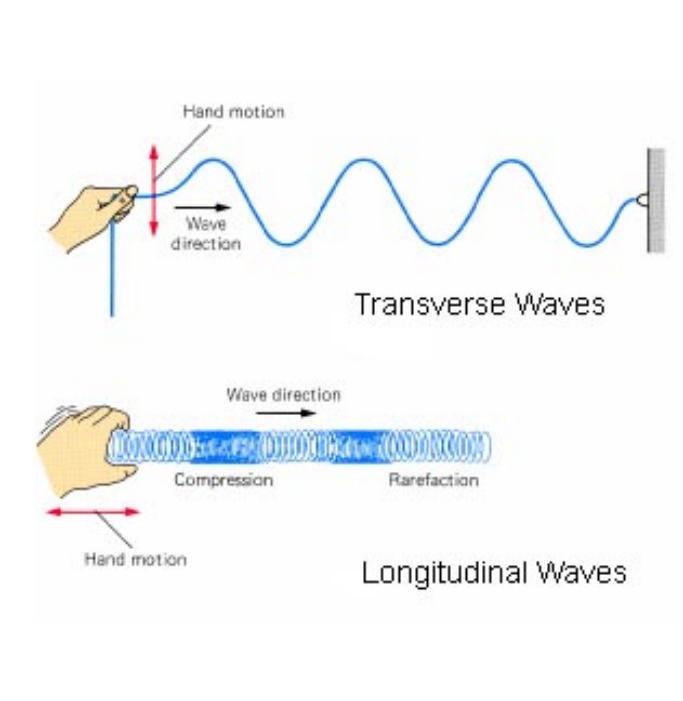
As the frequency increases, wavelength [redacted]



As the frequency decreases, wavelength [redacted]

Jan 31-7:40 PM

Types of Waves



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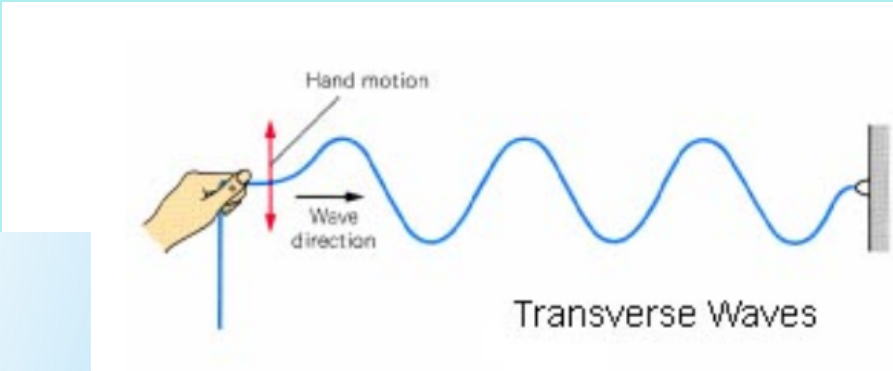
Transverse Waves: a wave in which the matter in the medium moves at a right angle (up and down) to the direction in which the wave is traveling (light)



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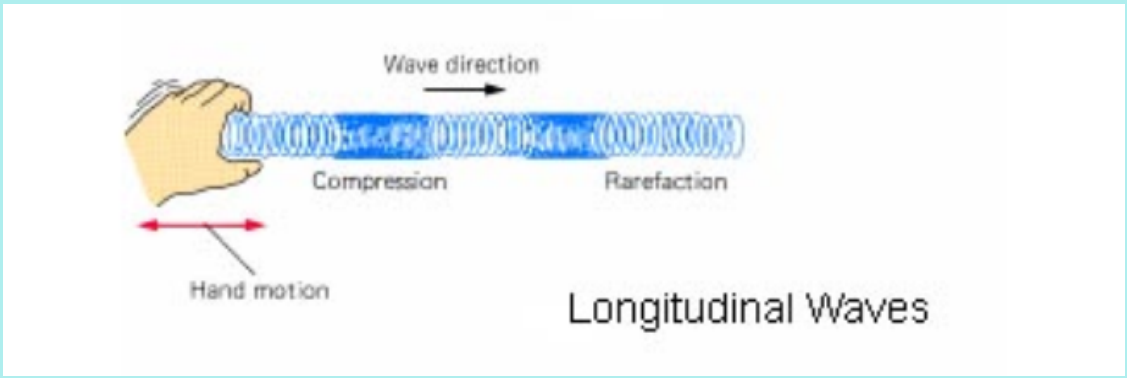
Longitudinal Waves: a wave in which the matter in the medium moves back and forth in the same direction as the wave is traveling. (sound)



Do ws

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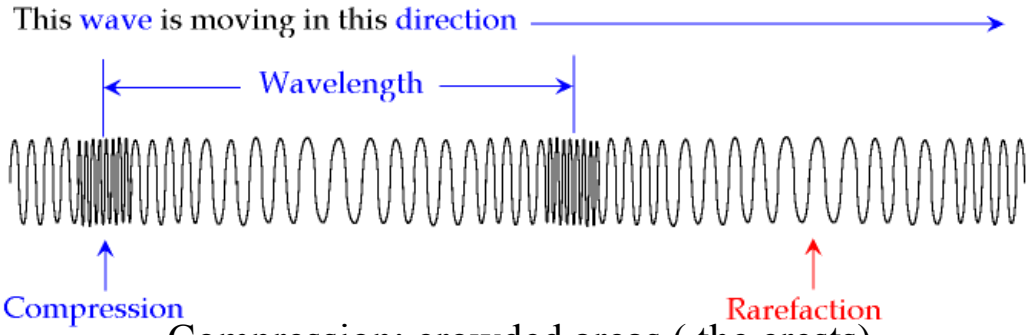
Longitudinal Wave



Compression: crowded areas (the crests)

Rarefaction: least crowded areas (the troughs)

Wavelength: measured from compression to compression

Amplitude: the more compressed, the greater the amplitude

Jan 30-8:43 PM

Speed of Waves

Speed= Frequency x Wavelength

Different waves travel at different speeds.

Why do you see lightning before you hear thunder?

- The speed of a wave depends upon the medium through which it travels. Waves move more slowly in a denser medium.

Jan 30-9:13 PM