## GENERAL WAVE HELP-For you to refer to as we go.

- Absorption- occurs when the medium absorbs the energy of the wave and transforms it into heat.
- Amplitude- the maximum distance a wave moves from resting position. For sound it's the volume. For light, brightness.
  - o Transverse- distance from center to crest or trough
  - o Longitudinal- distance how close together the particles are within a compression of a longitudinal wave.
- Compression- areas where particles of the medium are close together. (In longitudinal waves)
- Crest- highest point of a transverse wave
- Diffraction- occurs when a wave bends and spreads around a medium
- Electromagnetic wave- waves that can travel through a medium but also can travel through empty space
- Frequency- Number of waves that pass in a given amount of time. Example 2 waves/second............We would call this 2 Hertz (Hz)
  - o Frequency of electromagnetic waves determines the energy it has.
    - X-Rays have high frequency, high energy, very strong
    - Radio waves have low frequency, low energy, not as strong
- Longitudinal wave- wave that vibrates the medium in the same direction (parallel) in which the waves travel
- Love wave- transverse waves that move parallel to the ground
- Mechanical wave- waves that require a medium to travel through and form when a source of energy causes a medium to vibrate.
- Medium- a material substance in which energy is transported.
- P waves- longitudinal earthquake waves that strike first
- Raleigh Waves- waves that roll along the ground, causing the ground to move up and down as well as side to side
- Rarefaction- areas where particles of the medium are far apart. (In longitudinal waves)
- Reflection- occurs when a wave bounces off a medium without entering it
- Refraction- the change of direction of a wave that occurs because the wave changes speed upon entering a new medium
- S waves- transverse seismic waves that strike second
- Seismic wave- an elastic wave created by a disturbance in the earth.
- Transverse wave- wave that moves at right angles, or perpendicular to the direction in which the waves travels
- Trough- lowest point of a transverse wave
- Wave- A wave is a disturbance that transfers energy from one location to another. (remember energy is the ability to do work)
- Wave speed- How fast a wave travels from one place to another. Different mediums and environments can contribute to speed.
- Wavelength- Length from corresponding points of one wave to the next. Corresponding means similar, Ex. Crest to Crest... Trough to Trough...
  - o Life Example: Wavelengths determine color of visible light waves.

## **Vocabulary Canvas**

Wave	Wavelength	Wave Speed	Frequency	Medium
Mechanical Waves	Electromagnetic Waves	Transverse Waves	Longitudinal Waves	Comparison Through Music Recording
				g
Crest	Trough	Amplitude	Compression	Rarefaction
Refraction	Reflection	Absorption	Diffraction	Ocean Wave
Seismic Waves	P Waves	S Waves	Love Waves	Raleigh Wave