

Name: _____ Date: 3/9/2020 Period: _____

(NOTES)

Waves:

- A transfer of energy from place to place through matter or space

Medium:

- Material through which a wave travels
- Solid, liquid, or gas
- Mechanical waves require a medium to travel through

Mechanical Waves:

- Waves that form when a source of energy causes a medium to vibrate
- Need a medium – cannot travel through empty space

Types of Mechanical Waves:

1. Longitudinal
2. Transverse

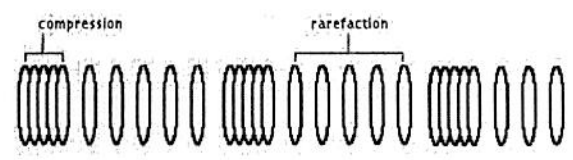


Figure 1: Longitudinal Wave

Longitudinal Wave: (Compressional Wave)

- Vibrates the medium in the same direction in which the wave travels
- Example: Sound WAVES

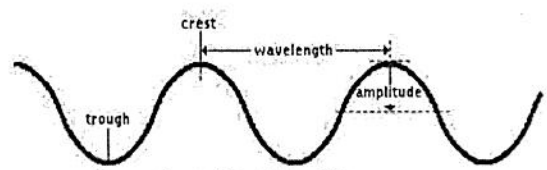
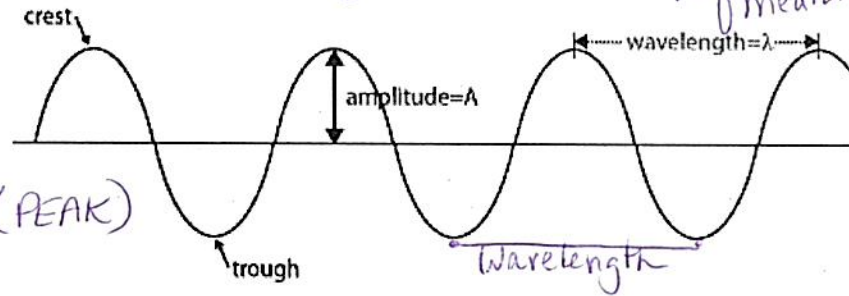


Figure 2: Transverse Wave

Transverse Wave:

- Vibrates the medium at right angle (perpendicular) to the direction in which the wave travels
- Example: earthquake waves, Electro-magnetic waves (Does not require a medium)
Water waves



Characteristics of Transverse Waves:

- Crest – high point on a wave (PEAK)
- Trough – low point on a wave
- Amplitude – height of a wave's crest
- WAVE Length – distance between two crests or two troughs of a wave
- Frequency – number of waves that pass a given point every second measured in Hertz (Hz)