

#115

WAVES

Mechanical Waves

must have a medium or matter in order to travel

Examples:

Seismic wave - ground Earth

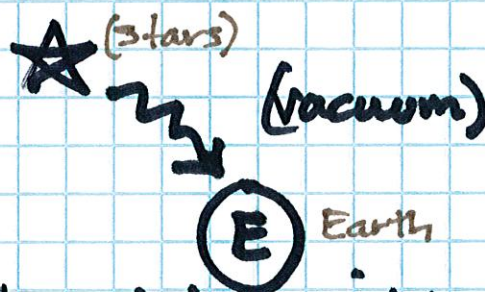
Ocean wave - water

Sound - air, H₂O, steel

Slinky - metal

Electromagnetic Waves

- does not need a medium in order to travel
- Can travel through empty space (vacuum)

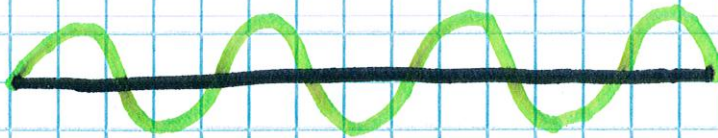


1. visible light
2. ultraviolet light
3. infrared (heat)
4. radio waves
5. microwaves
6. gamma rays

7. x-rays

Transverse Wave

(Light)



Energy →

Wave motion ↓

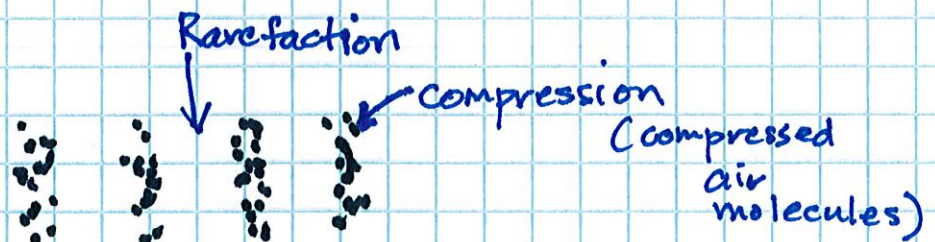
Energy moves at a right angle to the motion of wave.

[energy moves to the right]
[wave moves up and down]

T (right angle)

Longitudinal wave = Compression wave

(Sound)



energy moves →

particles move back and forth ↔
(parallel to each other)