

## WAVES UNIT VOCABULARY

### Energy and Waves

1. **Energy** - The ability to make something happen or the ability to do work
2. **Transfer of Energy** - This takes place when particles/molecules move the energy of motion to other particles/molecules then they return to their state of rest
3. **Wave** - A disturbance caused by a vibrations that transfers energy from place to place
4. **Vibration** - A repeated up and down or back and forth motion
5. **Source** - The origin of the wave, what starts it
6. **Medium** - The matter through which a wave travels
7. **Matter** - Anything that has mass and volume
8. **Seismic wave** - A wave produced by an earthquake

### Kinds of Waves

9. **Mechanical waves** - Waves that require a medium through which to travel
10. **Longitudinal/Compressional waves** - Waves that move the medium parallel ( $\parallel$ ) to the direction in which the energy travels (movement of energy and motion are in the same direction)
11. **Sound wave** - A disturbance that passes through a medium as a longitudinal/compressional wave
12. **Transverse waves** - Waves that move the medium in a direction perpendicular ( $\perp$ ) to the direction in which the energy travels (movement of energy and motion are at  $90^\circ$  angles)
13. **Light energy** - Energy that travels in transverse waves and enables us to see

### Parts of Waves

14. **Rest Position** - The position where the wave is at rest, halfway between the crest and the trough
15. **Compression** - The part of a longitudinal wave where the particles of the medium are closer together
16. **Rarefaction** - The part of a longitudinal wave where the particles of the medium are farther apart
17. **Crest** - The highest part of a transverse wave
18. **Trough** - The lowest part of a transverse wave

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### Characteristics of Waves

19. **Amplitude** - The maximum distance the particles move away from their rest positions
20. **Decibels (dB)** - unit used to measure the intensity (loudness) of sound
21. **Wavelength** - The distance between two corresponding parts of a wave (mm)
22. **Frequency** - The number of waves that pass a given point in a certain amount of time usually 1 second
23. **Hertz (Hz)** - Unit of measurement for frequency
24.  $1 \text{ Hz} = \frac{1 \text{ wave}}{1 \text{ second}} = 1 \text{ wave/second}$
25. **Pitch** - The description of how high or low the sound seems to a person, determined by frequency of the sound

