

## PROPERTIES OF WAVES

A wave is caused when a disturbance forces energy to travel out from the source.

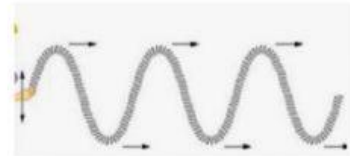
A \_\_\_\_\_ wave is a wave where the molecules vibrate perpendicular to the direction of the energy of the wave.

A \_\_\_\_\_ wave is a wave where the molecules vibrate parallel to the direction of the energy of the wave.

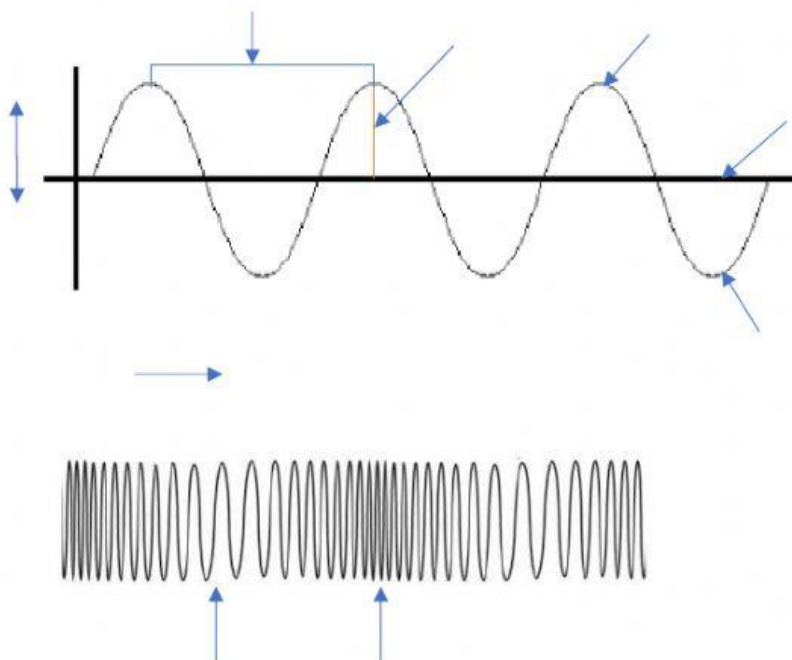
**Drag and drop the labels on to the correct diagram.**

Transverse Wave

Compressional Wave

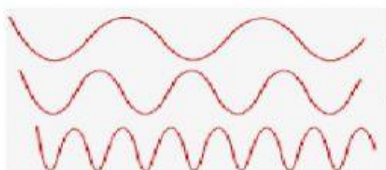


**Drag and drop the labels on to the diagrams to identify the parts of the waves.**



- Particle Vibration
- Amplitude
- Direction of Energy
- Crest
- Rarefaction
- Trough
- Compression
- Wavelength
- Equilibrium

Which wave below would have a higher frequency?



Why?

Which wave below is carrying more energy?



How do you know?

Wavelength and frequency are inversely proportional. Meaning that as the wavelength increases (lengthens), the frequency decreases.

If you were to create a bigger disturbance, the amount of energy in the wave would increase and the amplitude of the wave would increase.

Which would create a wave with a larger amplitude?



The duck bobs up and down as the wave passes because