

# Physics Essentials Phenomenon

What is  
happening  
here?



# Waves

## Mini Lesson

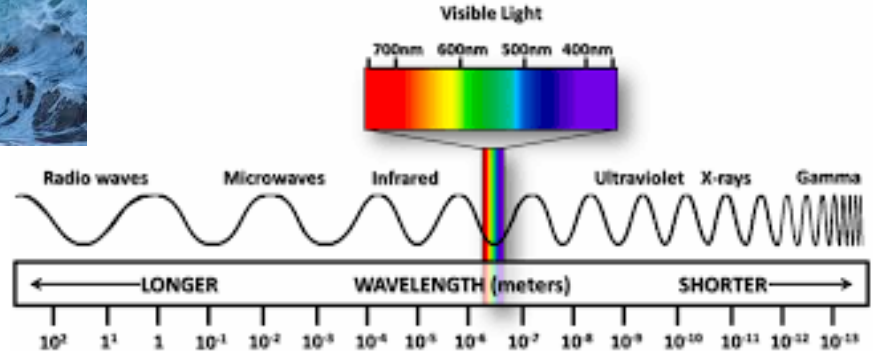
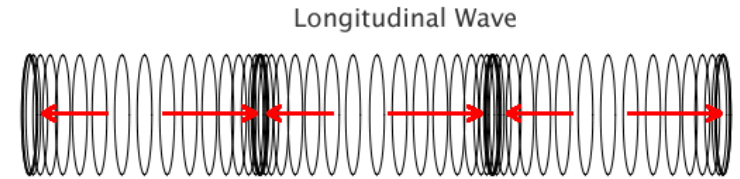
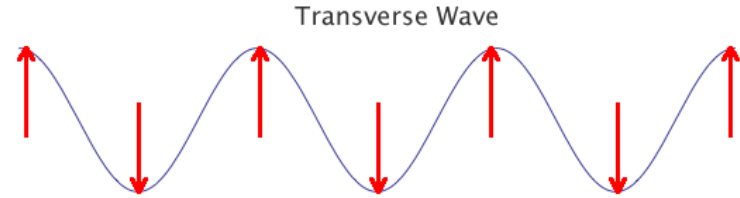
# What's a Wave?

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A disturbance that travels through a medium from one location to another.

**Waves transfer energy not matter**

Consider a slinky...

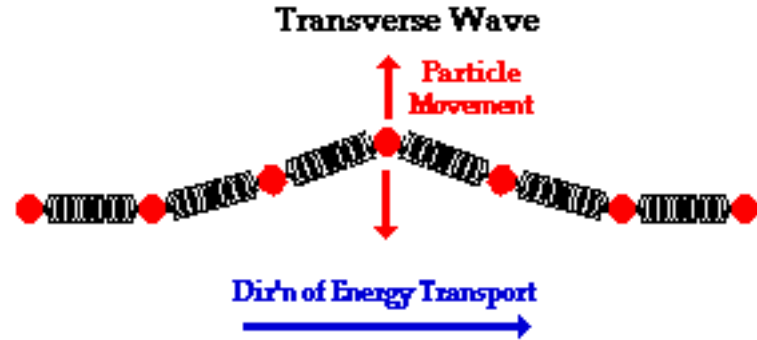


# The 2 Types of Waves

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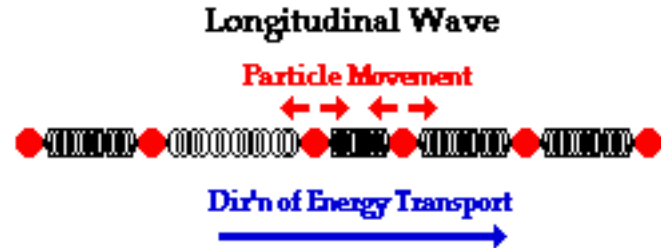
## Transverse Wave-

perpendicular to the direction of travel  
(moves to the right, particle goes up)



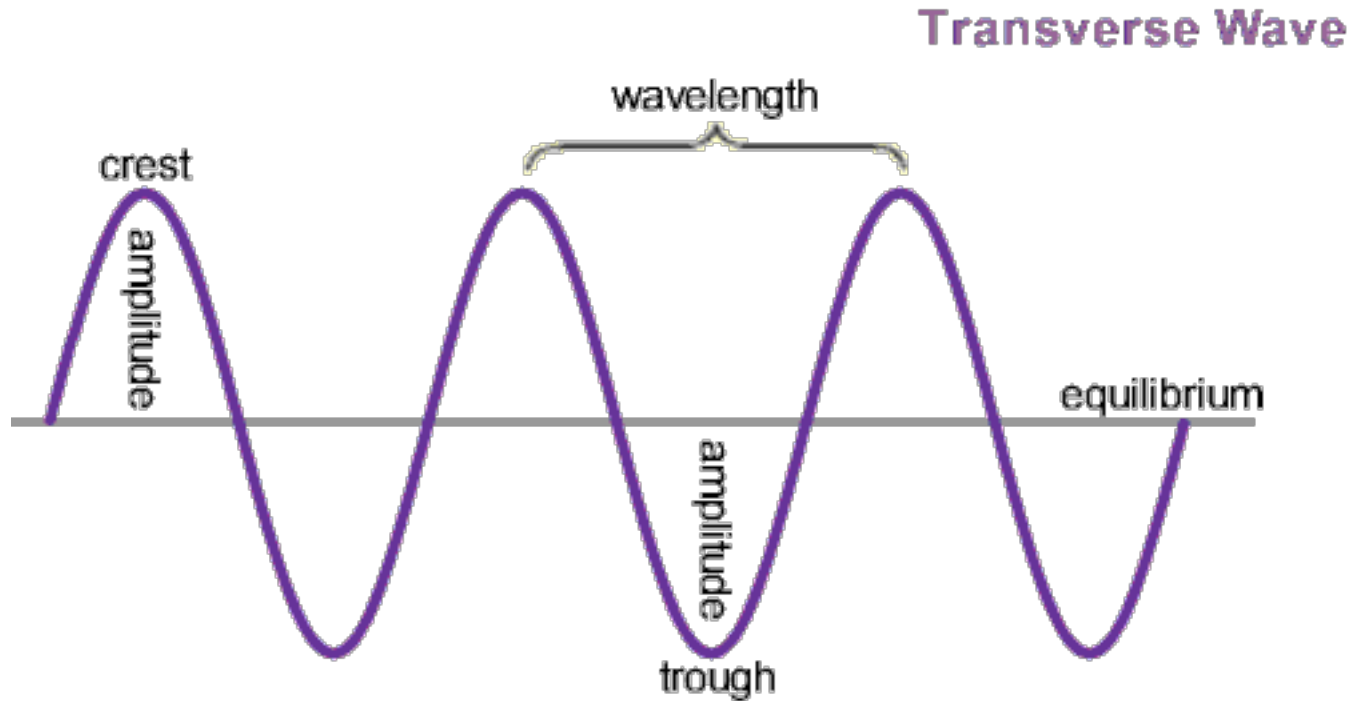
## Longitudinal Wave-

parallel to the direction of travel  
(moves right, particle moves right)

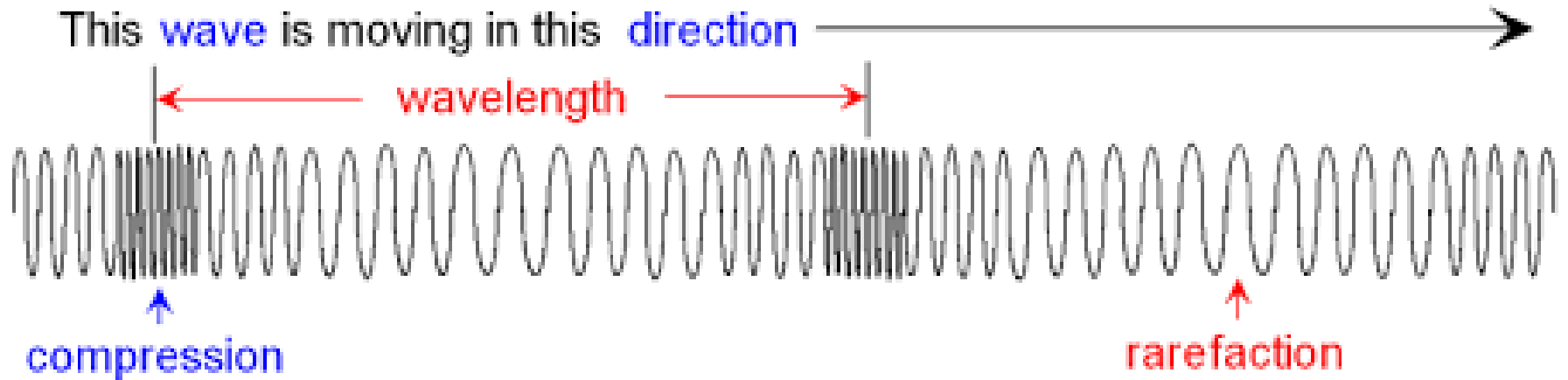


# Transverse Wave

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# Longitudinal Wave- Sound Wave



# More Wave Vocabulary

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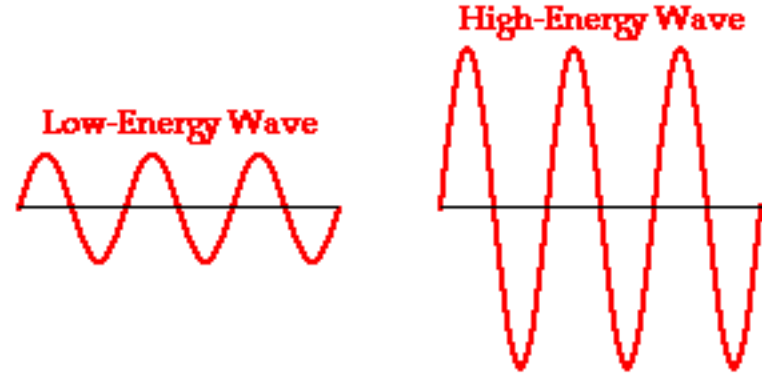
## Frequency:

Number of waves/time

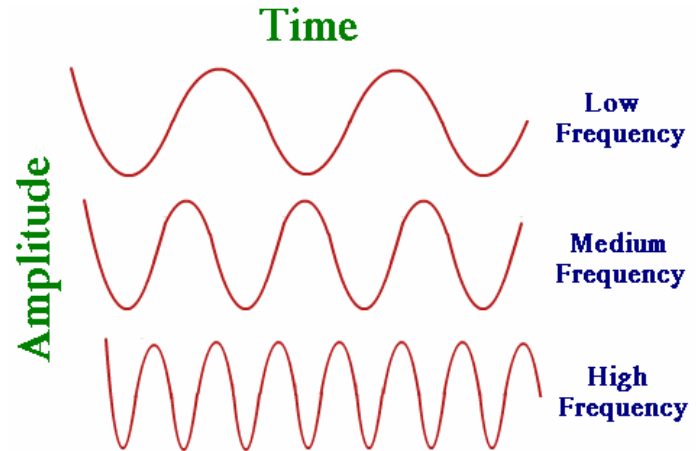
Unit: Hertz

## **Speed:**

Frequency x wavelength

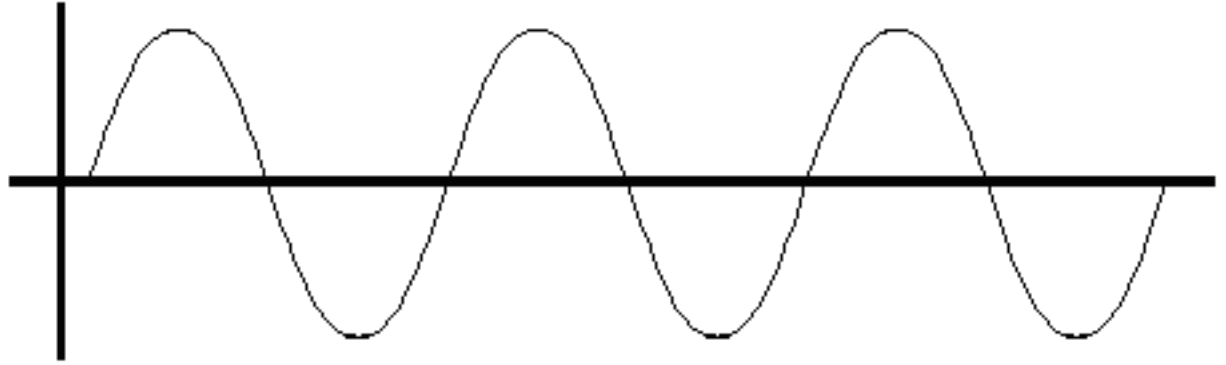


**The amplitude of a wave is related to the energy which it transports.**



# Wrap Up

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- 1) What is the type of wave above?
- 2) Identify: amplitude, wavelength, trough, crest
- 3) What is the frequency if this wave traveled in 3 seconds?
- 4) What is the speed of the wave?
- 5) Draw a higher frequency wave.



