

Chapter 15 Day 2

Section 1

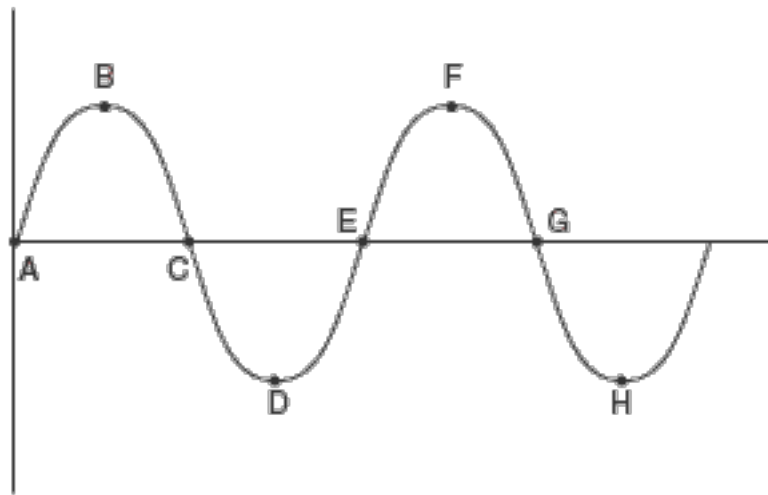
SPI 0707.11.5 Compare and contrast the different parts of a wave.

SPI 0707.11.6 Differentiate between transverse and longitudinal waves in terms of how they are produced and transmitted.

What You Will Learn

- The different parts of the wave
- More about the differences between transverse and compressional waves
- Examples of transverse and compressional waves

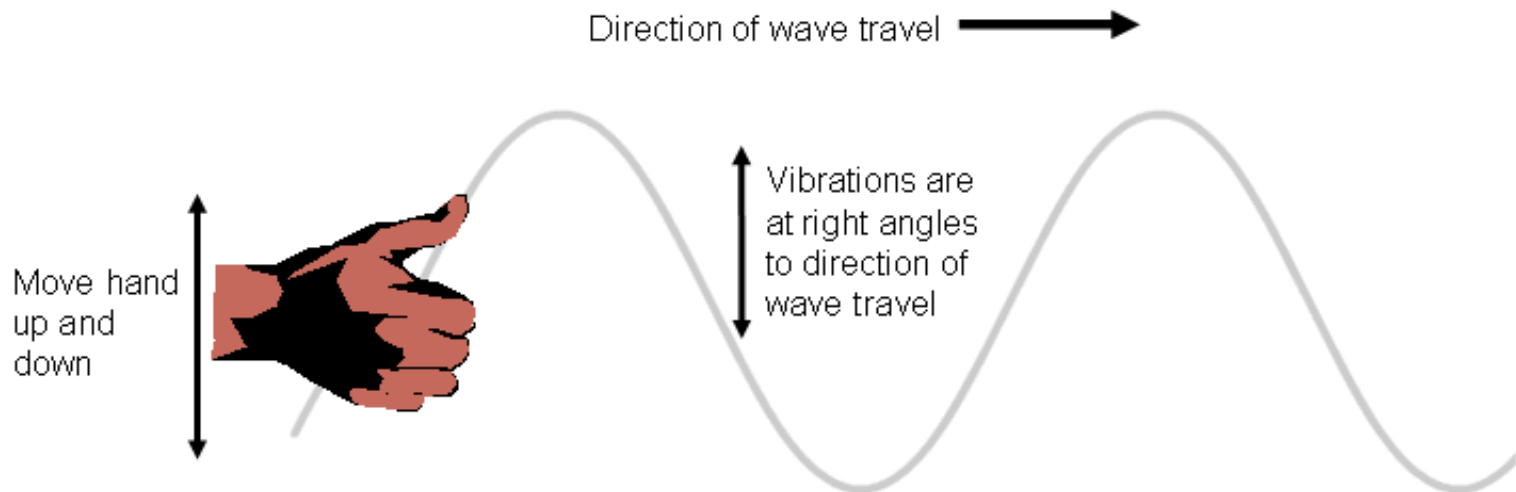
What Mastery Looks Like



You should be able to explain what B, D, F, and H are called.
You should be able to explain the role they play in transverse waves.
You should be able to explain whether or not a longitudinal wave has a crest.

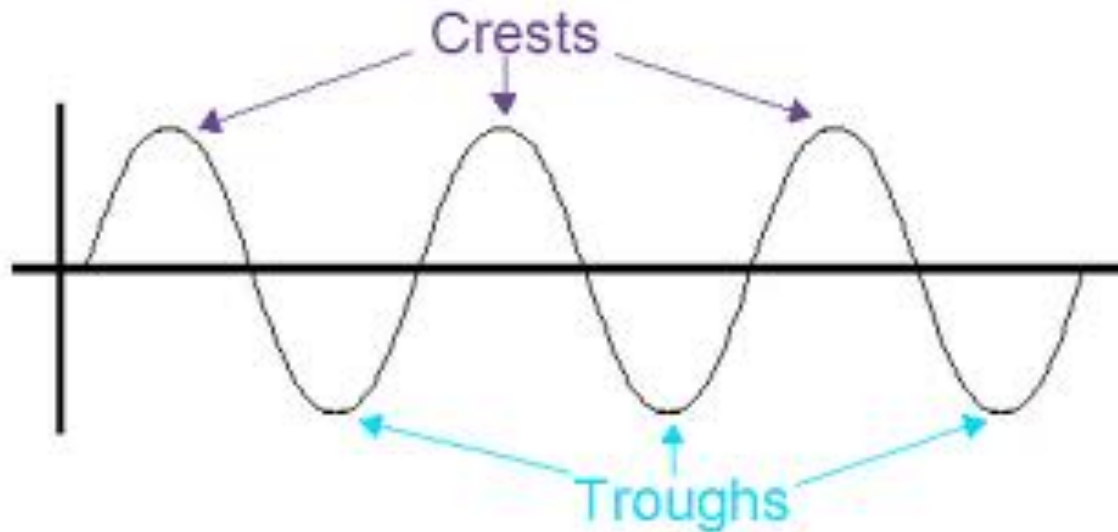
Transverse Waves

- Silently, read *Transverse Waves* on p. 456.
- In your notes, draw a diagram that shows the vibration of the matter in relation to the wave motion as described in the text.



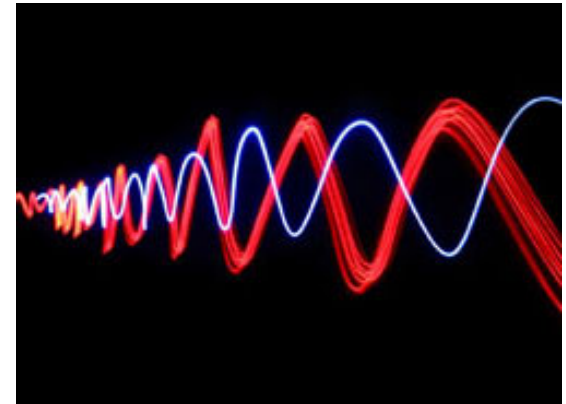
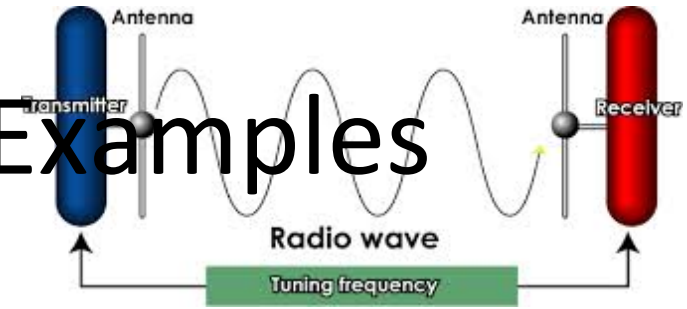
Transverse Wave

- What do you call the highest point of a transverse wave?
- What do you call the lowest point of a transverse wave?



Transverse Waves Examples

- Light Waves
- Radio Waves
- Television Waves
- Water Waves
- Vibrating Guitar Strings



Transverse Waves vs. Compressional Waves

- <https://www.youtube.com/watch?v=w2s2fZr8sqQ>

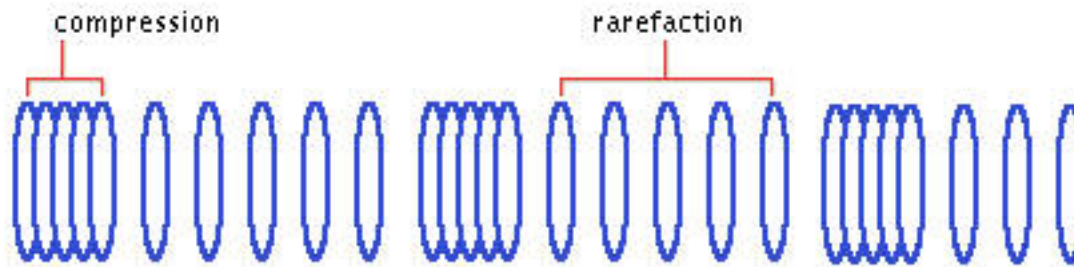


Figure 1: Longitudinal Wave

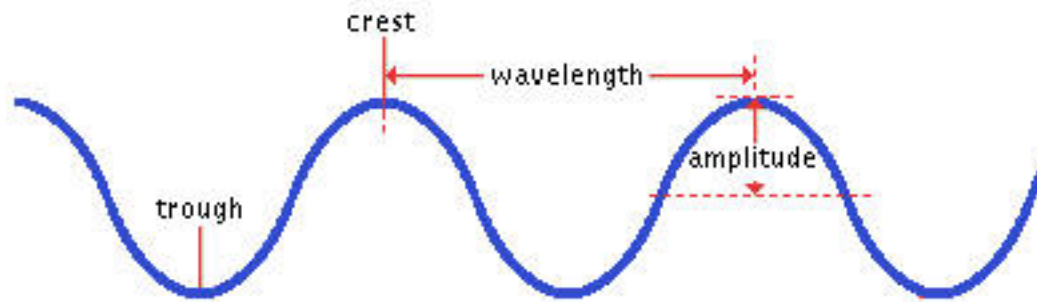
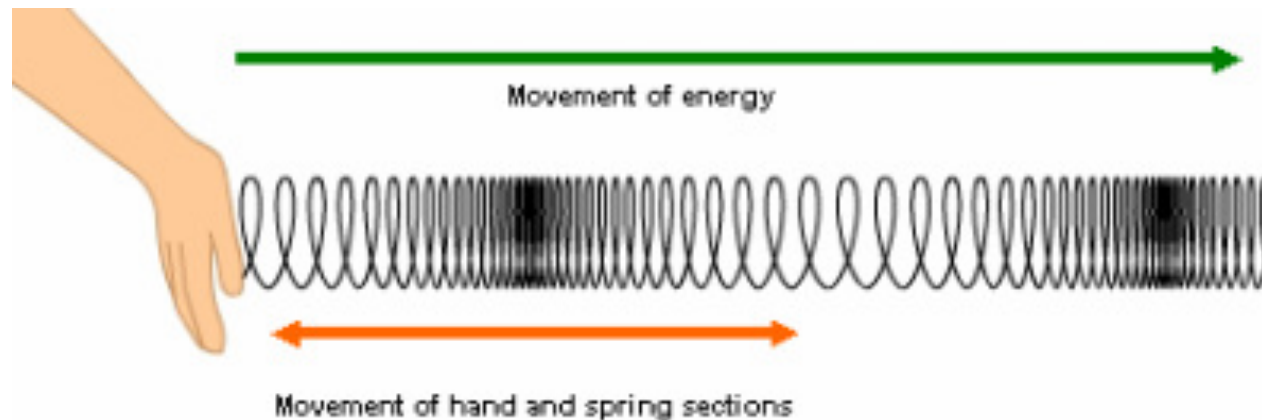


Figure 2: Transverse Wave

Compressional (Longitudinal) Waves

- Read p. 457 *Compressional Waves*.
- Draw a diagram that shows the direction of the matter in the medium in relation to the wave motion as described in the text.



Compressional (Longitudinal) Waves

- <https://www.youtube.com/watch?v=j1Q5TFMqsFo>

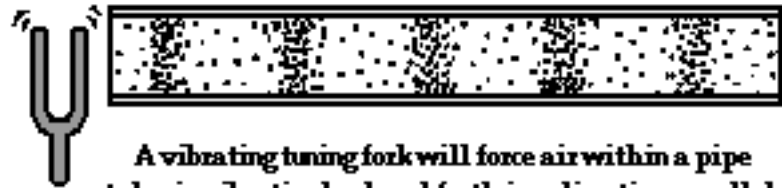
Compressional Wave Examples

- Sound Waves

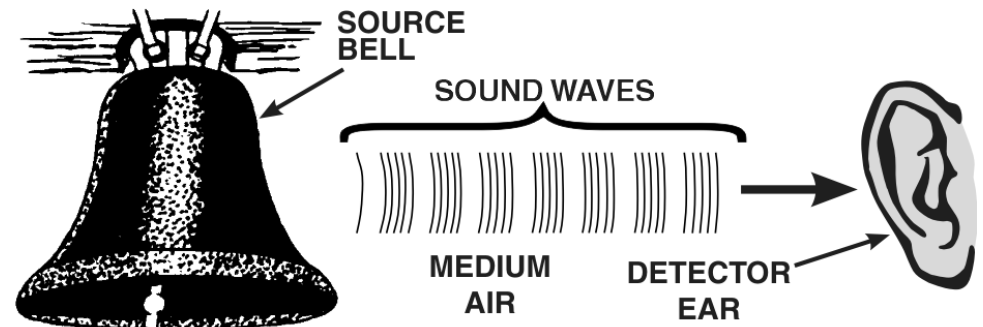
<https://www.youtube.com/watch?v=zKwvpv8mZHRM>

- Ultrasound Waves

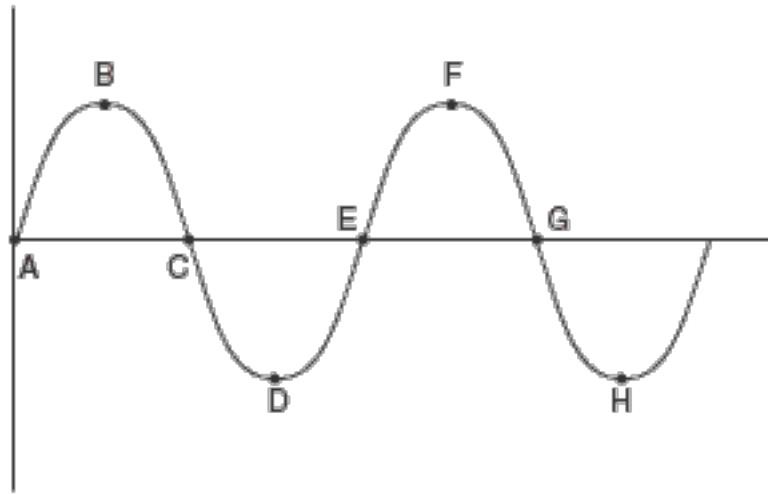
<https://www.youtube.com/watch?v=oRlowjn63Lc>



A vibrating tuning fork will force air within a pipe to begin vibrating back and forth in a direction parallel to the energy transport; sound is a longitudinal wave.



Exit Ticket



1. Explain what B, D, F, and H are called.
2. Explain the role they play in transverse waves.
3. Explain whether or not a longitudinal (compressional) wave has a crest.