

Chem 1710-- Introduction to Chemistry and Physics

Waves - Sound

Study Guide: Chapter 10, *Conceptual Physical Science*, 4th edition

Objectives: When you finish this chapter you should be able to:

- Describe a wave and give types and measurements (amplitude, wavelength, frequency, period, speed)
- Use the equation relating speed, wavelength and frequency to solve problems
- Describe how sound waves are produced and what types of waves they are.
- Know the speed of sound in air and use it to solve problems.
- Relate sound measurements to characteristics of the human ear.
- Describe the wave properties of reflection, refraction and interference and give practical examples.
- Describe simply - forced vibrations, the Doppler effect and sonic booms.

Activities:

- Read chapter 10.
- Answer mentally review questions 1-26 and exercises 6, 8, 9, 10, 11, 13, 18, 22, 24, 28, 37, 38, 39. Answer on paper problems 3, 6, 7, 9, 10.
- Do Practice Book page 65. (4th edition)
- Demonstrations
- Speed of Sound lab.