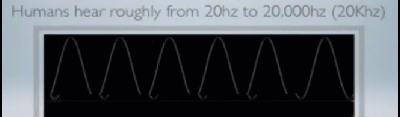
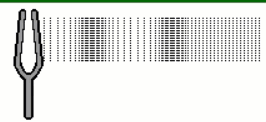
**Mechanical & Sound Waves**

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**See** [**https://www.learningctronline.com/courses**](https://www.learningctronline.com/courses) **for Materials and Resources.**

**Topics:**

1. Mechanical & Sound Waves

**Objectives:**

* Define a wave” and describe three types of mechanical waves, especially contrasting transverse & longitudinal waves.
* How are mechanical waves like sound produced, transmitted, and heard?
* Define the properties and components of mechanical waves like sound waves (longitudinal, wavelength, amplitude, frequency, period, velocity, compressions, rarefactions) and calculate variables.
* Recognize and explain behaviors of sound waves (Doppler Effect).

TAKE NOTE

1. Reading (Hewitt Text)

2. Test Corrections Current & EM Induction (due by next class)

3. Elicitation: How is Sound Produced and Received?

4. Notes Mechanical & Sound Waves

5. Lab Wave Properties PHET Simulation

6. Problem Set: Mechanical & Sound Waves (2 weeks)

7. Lab: Sound Activities

8. Class Song: Don’t You Know It’s Time for Class Now

9. Week 26 Devotional (<https://www.learningctronline.com/devotional>)

**Text**: Chapters 25 – 26 Mechanical & Sound Waves (Hewitt)

**Class Notes: Use the Document provided**

**Homework**:

* Problem Set: Mechanical Waves
* HONORS: Distinguish FM and AM in relation to sound waves.

**Lab**: Wave Properties PHET Simulation

* Perform the lab as directed using the worksheet provided.
* Complete all calculations and data, showing work whenever appropriate.
* Conclusions should be answered in complete sentences that convey a complete thought.
* Save the documents into your LAB folder in the Physics folder on your desktop.

**Lab**: Sound Activities

* Perform the lab as directed using the worksheet provided.
* Complete all calculations and data, showing work whenever appropriate.
* Conclusions should be answered in complete sentences that convey a complete thought.
* Save the documents into your LAB folder in the Physics folder on your desktop.

**TEST:** No Quiz this week.

Supplemental Resources (Optional)

<http://somup.com/cbeDrkRAG> Frequency & Amplitude PHET Simulation (1:23)

<http://somup.com/cbeD3zRBj> Frequency & Wavelength PHET Simulation (1:24)

<https://screencast-o-matic.com/watch/cFX20vrh6t> Sound Moving Air (2:32)

<https://screencast-o-matic.com/watch/cFXoqlr13x> Blowing Across Bottles (0:35)

<http://somup.com/cFXoILnjiI> Car Horn Doppler Effect (0:13)

<http://somup.com/cFXoIKnjil> Echo & Reverberation (1:09)

<http://somup.com/c0eoFHyk3T> (0:59) Refraction & Reflection of a Pulse in Different Media

<http://somup.com/cYhqoXjzeZ> Rejoice in Hope Romans 12:12; Let Me Love & Not Be Respected (5:30)