

WEEK OF: December 14, 2020

CLASS: Physics 103 – C/D Blocks

TEACHER: Mrs. Burke

CONTACT INFO: Deborah.Burke@thedeltahighschool.com (contact via direct email, through Teams, and through Remind = Dphys103T2)

OBJECTIVES:

- Increase variable symbol recognition
- Practice algebraic manipulation for problem solving
- Increase understanding of Doppler shift
- Increase understanding of temperature effects on sound speed

ZOOM LINKS:

Check TEAMS POSTS for link information (we will use Zoom if it is working, Teams if Zoom is unavailable).

YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #1:

Complete $\frac{1}{2}$ of Doppler worksheet problems

Watch real-world connection video <https://www.youtube.com/watch?v=JL8PayB8r6c>

Read OpenStax College Physics section 17.4

Journal Entries:

Basic wave equation and the symbol meanings

Relationships between frequency, velocity, and wavelength

Doppler equation and symbol meanings

Doppler worksheet practice

Resource Interaction:

Read OpenStax College Physics section 17.4 (take notes!) and The Physics Classroom Doppler Effect

Key Concepts

Example problem(s)

Questions

Watch Doppler video <https://www.youtube.com/watch?v=h4OnBYrbCjY&vl=en>

Key Concepts

Questions

Journal Entries:

Sound diary – List sounds from your environment (occasionally throughout 1 week) and mark them as:

Constant (or nearly so)

Intermittent

Rare

Resource Interaction:

Listen to an episode of the podcast 20,000 Hertz at <https://www.20k.org/>

Key Concepts

Example problem(s)
Questions

SYNCHRONOUS MEETING #1:

- Breakout room and whole group Q&A on Doppler worksheet

YOUR RESPONSIBILITIES AFTER ZOOM #1:

- Have notes detailing the learning you've experienced toward meeting the objectives state above. Put these into your Teams > Class Notebook > Journal

YOUR ASYNCHRONOUS RESPONSIBILITIES AFTER ZOOM #1

- Complete Doppler worksheet
- Request Accuplacer testing (as needed)
- Come to office hours with your study group

YOUR ASYNCHRONOUS RESPONSIBILITIES BEFORE ZOOM LESSON #2 :

- Read The Physics Classroom "[The Speed of Sound](#)"
- Attempt the Check Your Understanding problems within the reading selection

Journal Entries:

- Doppler worksheet practice
- Speed of Sound in Air equation and symbol meanings
- Relationships between air temperature and sound speed

Resource Interaction:

- Read The Physics Classroom "[The Speed of Sound](#)" (take notes!)
- Key Concepts
- Example problem(s)
- Questions

SYNCHRONOUS MEETING #2:

- Take the Doppler Quiz

YOUR RESPONSIBILITIES AFTER ZOOM #2:

- Have notes detailing the learning you've experienced toward meeting the objectives state above. Put these into your Teams > Class Notebook > Journal **THIS MEANS REFLECTING ON YOUR QUIZ PERFORMANCE**

IDEAS FOR USING YOUR ASYNCHRONOUS TIME:

Study TOGETHER

Doppler worksheet practice

Textbook reading

Journal entries

Submit college paperwork

DUE DATES:

- Paperwork for college enrollment: December 16th

OFFICE HOURS:

11:45-12:45: Look in Teams Posts for Zoom link. Drop-in format. If you are taking this course for college credit, you are expected to attend office hours weekly. This is a good opportunity to work together in a study group. You may also request a breakout room for a study group for any other class.

Other contact options: email, Remind, Teams post