

## Unit 13: Waves

- You should be spending at least **60 minutes** a day on Physics Curriculum.
- **Completing** the note taking guide is required and **printing** the guide is highly recommended.
- Seeking help if you are not passing your post assessments and/or practices is essential.
- If you are behind you **MUST** spend additional time on Physics to catch up and meet due dates!
- If you cannot meet a due date, extensions must be requested and approval received **in advance**.
- To keep on track Unit 13 should be completed by April 27.

### Goals:

1. I can compare and contrast the different waves (mechanical, longitudinal, compressional, etc.)
2. I can identify and measure wavelength, frequency, period, amplitude.
3. I can use mathematics and computational thinking to determine the wavelength, frequency and wave speed when one or more of the variables is changed.
4. I can create and measure 3 mechanical waves with different wavelengths to determine the effect on wave speed.
5. I can recognize and identify the following wave behaviors: reflection, refraction and diffraction.
6. Explain how the Doppler Effect has been used to suggest expansion of the universe.

## Complete Unit 13 Pretest

### Unit 13 Vocabulary

- Unit 13 Vocabulary is optional

### Waves (Types of Waves & Wave Parts) Notes

- Complete note taking guide

### Waves Notes- Post Assessment

- take assessment after watching video notes and completing note taking guide
- must score a 80% or redo
- seek remediation if PA is not passed on 3<sup>rd</sup> attempt
- Pass by 4/8, end of class period

### Waves (Types & Parts of Wave) Practice

- will open up after scoring 80% on Waves Notes post assessment
- must score a 65% or redo
- Pass by 4/10, end of day

### ESPN Sports Figures Video

- Watch the two ESPN VIDEOS:
  1. Making Waves
  2. Surfing Science
- After watching, complete the questions via Blackboard.
- Complete by 4/10, end of day

### Wave Speed Notes

- Complete note taking guide

### Wave Speed Notes - Post Assessment

- take assessment after watching video notes and completing note taking guide
- must score a 80% or redo
- seek remediation if PA is not passed on 3<sup>rd</sup> attempt
- Pass by 4/11, end of class period

### Wave Speed Practice

- will open up after scoring 80% on Wave Speed Notes post assessment
- must score a 65% or redo
- Pass by 4/12, end of class period

### PHET Wave Simulation Lab

- Use the PHET simulation *Waves on a String*
- Answer the follow up questions after completing the Simulation. Submit DATA and answers to the questions through Blackboard by 4/15, end of day
- Lab report is NOT required for this lab.
- There are very limited corrections accepted on this lab.

### Wave Interference Notes

- Complete note taking guide

### Wave Interference Notes - Post Assessment

- take assessment after watching video notes and completing note taking guide
- must score a 80% or redo
- seek remediation if PA is not passed on 3<sup>rd</sup> attempt
- Pass by 4/16, end of class period

### Wave Interference Practice

- will open up after scoring 80% on Wave Interference Notes post assessment
- must score a 65% or redo
- Pass by 4/17, end of day

### Creating & Measuring Waves Lab

- will open up after scoring 65% on Wave Interference Practice
- You may work with a partner or small group to collect your data; however, each student is responsible for analyzing the data and answering questions. You should construct your answers as an individual, not as a group. Do NOT submit someone else's answers as your own work.
- Submit Lab Report by 4/24, 11:59 PM
- Refer to Scoring Rubric prior to submitting
- Lab corrections are due 4/30, 11:59 PM

### Wave Behavior Notes

- Complete note taking guide

### Wave Behavior Notes - Post Assessment

- take assessment after watching video notes and completing note taking guide
- must score a 80% or redo
- seek remediation if PA is not passed on 3<sup>rd</sup> attempt
- Pass by 4/25, end of class period

### Wave Speed Practice

- will open up after scoring 80% on Wave Behavior Notes post assessment
- must score a 65% or redo
- Pass by 4/26, end of class period

### ESPN Sports Figures Video

- Watch the ESPN VIDEO, Sounds of Summer
- After watching, complete the questions via Blackboard.
- Complete by 4/29, end of class period

### Optional Crib Sheet for Unit 13 Test

- When all practices are completed until a 65% or better is earned, you may use a "teacher guided" crib sheet.
- Complete crib sheet on 4/26 (or at least 1 day before test)
- Completed crib sheet must be given to teacher 1 day prior to the test and returned after the test.

### Redo Practices for Review

#### Submit Unit 13 Warm Ups on April 30

### Unit 13 Test

- Test will open up after passing all Post Assessments and Practices and completing all Labs for this unit.
- Test should be taken by 4/30

### Retake Unit 13 Test

- If you score below a 65% you must watch the video notes:
  - Complete note-taking guides for the unit and all practices in the unit again
  - Seek remediation as needed
  - Retake the Unit 13 Test and pass with a 65% or higher
  - **COMPLETE the RETAKE as soon as possible to avoid falling behind in the next unit**