

## Unit 8: Electrostatics

- 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 8 should be completed by January 25.

### Goals:

1. I can explain how objects become electrically charged.
2. I can carry out an investigation to demonstrate the fundamentals of electrostatics.
3. I can use mathematics and computational thinking to determine the electrical force, charge, or distance between charges when one or more of the variables is changed.
4. I can use mathematical representation of Coulomb's Law to predict the electrical forces between two particles or objects.

### Complete Unit 8 Pretest

#### Unit 8 Vocabulary

- Unit 8 Vocabulary is optional

#### Electrostatics Notes

- Complete note taking guide

#### Electrostatics 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 1/14, end of class period

#### Electrostatics Practice

- will open up after scoring 80% on Electrostatics Notes post assessment
- must score a 74% or redo
- Pass both by 1/15, end of day

#### Materials that Cause Static Electricity

- To prepare for your lab you must read the information on *Materials that Cause Static Electricity*.
- Complete the questions after reading the information.
- Enter your answers to the questions through Blackboard.
- Score a 74% to move onto the lab.
- This information may be included on the Unit 8 Test.

#### Investigating Static Electricity Lab

- There are 5 minilabs (5 Stations) to explore electrostatics.
  - **Glove-Head Admirer**
  - **Sticky Static Electricity**
  - **Dancing Dots**
  - **Bending Water**
  - **Charging Electroscope**
- All Stations should be completed in the classroom by 1/17.
- Every student is responsible for understanding the fundamentals of electrostatics presented during this lab.
- Submit answers to the questions through Blackboard for all 5 Stations by 1/17, 11:59 PM
- Lab report is NOT required for this lab.
- There are NO corrections accepted on this lab.
- There will be follow up questions regarding the Stations included on the Unit 8 Test.

#### Coulomb's Law Notes

- Complete note taking guide
- #### Coulomb's Law 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 1/22, end of class period

#### Coulomb's Law Practice

- will open up after scoring 80% on Coulomb's Law Notes post assessment
- must score a 74% or redo
- Pass by 1/23, end of day

#### Lightning Video Presented by NOVA

- Watch the linked video on Lightning presented by NOVA on PBS. The video investigates lightning and talks about safety during lightning storms.
- A document is provided so that you can complete the questions while watching the video.
- After the video submit answers to the questions via Blackboard.
- There will be follow up questions regarding the Lightning Video included on the Unit 8 Test.

#### Optional Crib Sheet for Unit 8 Test

- When all practices are completed until a 74% or better is earned, you may use a "teacher guided" crib sheet.
- Pick up the crib sheet on 1/24 (or at least one day before the 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 8 Warm Ups on January 25

#### Unit 8 Test

- Test will open up after passing all Post Assessments and Practices and completing all Labs for this unit.
- Test should be taken by 1/25

#### Retake Unit 8 Test

- If you score below a 65% you must watch the video notes:
  - Complete note-taking guides for the unit
  - Complete all practices in the unit again
  - Seek remediation as needed
  - Retake the Unit 8 Test and pass with a 65% or higher
  - **COMPLETE the RETAKE as soon as possible to avoid falling behind in the next unit**