

AP PHYSICS 2

SUMMER ASSIGNMENT

Mr. Schembari

I am posting this assignment midway through the summer because I wanted to get a better idea of how the beginning of the school year might look. This being a very different set of circumstances than a normal school year, I have reduced the assignment in length to a little less than half of the typical summer assignment for this course. The purpose of this summer assignment is to give you (and me) a head start on the early material in your AP Physics 2 course. Many students find AP Physics 2 to be a challenging, time consuming course and will devote a good amount of time over the course of the year. **This course is for serious students and requires dedication, commitment to hard work and a willingness to be challenged and pushed for the entire year.** As a disclaimer, I will be assigning work over the February break and possibly the spring break vacation as well, in order to ensure we complete all required sections of the course curriculum.

The information contained in this assignment will be *reviewed briefly* when you come to class the first few days, as all students taking AP Physics 2 will have completed AP Physics 1. Thus, the work contained in this assignment should be at your current level of physics. Use the approach to basic problem solving that you have learned in your first year of physics. The assignment begins with an introduction to the mathematics of the course, a review of the laws of motion and then will get into topics that will be further explored this year. **Since I believe no students from Lindley's class have a textbook, I will scan in the necessary pages on a separate document.** This assignment is to be finalized by the beginning of the second week of school, Monday September 14th but it would be ideal to have it completed once school begins so you can ask any and all questions you may have during class. I will check the assignment on Monday, September 14th and it will be collected on Wednesday, September 16th. **There will be an exam based on the summer work on September 16th and 17th.** The exam will include all summer work and everything covered in class up to this date. If you have any questions or concerns regarding this summer assignment, you can email me at dschembari@pelhamschools.org. I will be checking my email *about once a week* throughout the remainder of the summer.

You are expected to do this work *on your own*. Evidence of copied answers will result in penalties for *all* students involved (let's not start the school year like that). **You are also expected to *show all work* for full credit on these problems (where applicable).**

Neatness counts as well.

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Summer Assignment 2020

The following questions and problems are from the textbook we will use this year but since nobody has the book, I will be posting scans of the relevant textbook pages. These should be answered on loose-leaf paper, numbered by section/chapter. ***Work should be neat, legible and demonstrate a basic problem solving approach.*** Any answers to problems without complete worked out solutions will not be accepted for full credit; just as it is for the AP exam. Answers to conceptual questions must be justified with complete sentences

1) **Chapter 4 – The Laws of Motion**

ANSWER THE FOLLOWING QUESTIONS FROM THE BOOK (Pages 116-118)

Warm-Up Exercises

#3, 4, 6, 9

Conceptual Questions

#1, 3, 10, 12

Problems

#2, 3, 10, 12, 13

2) **Chapter 9 – Solids and Fluids**

ANSWER THE FOLLOWING QUESTIONS FROM THE BOOK (Pages 326-327)

Warm-Up Exercises

2, 3, 4

Conceptual Questions

1, 2, 3, 5

3) **Chapter 15 – Electric Forces and Electric Fields**

ANSWER THE FOLLOWING QUESTIONS FROM THE BOOK (Pages 549-553)

Warm-Up Exercises

#2, 5

Conceptual Questions

#1, 2

Problems

#15 (for #15 just draw the complete free body diagram on the left sphere of mass m and set up any equations that could help determine charge **BUT DO NOT SOLVE FOR ANYTHING**)