

AP PHYSICS 2

SUMMER ASSIGNMENT

Mr. Schembari

The purpose of this summer assignment is to give you (and me) a head start on the early material in your AP Physics course. There were some pretty big changes made to the AP Physics 1 and 2 that start next school year where they are moving Fluid Mechanics from AP2 to AP1 and in turn Waves and Sound will be moved to AP2. I normally have an end of the year meeting for incoming AP2 students but since that would require students in one classroom, I decided to just relay the information in this letter AND in the Google Classroom specifically made for the summer work. If you are not already enrolled in the class, please join the classroom using the code below:

wb6g3ns

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*. The pace of the course will be rapid at times but manageable for those who stay on top of their work and there will be a break assignment over the February break, to ensure we finish the curriculum. AP Physics 2 is a *college* level course and is well above the level of typical honors or regents level classes. I am certainly here to help you and guide you through this process of learning, but to a large degree, you will be responsible for developing an understanding through your own efforts both in and outside of the classroom.

The information contained in this assignment will be *reviewed only briefly* when you come to class the first couple of 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 a refresher on many of the fundamental skills you learned in AP Physics 1 as well as a brief introduction to Waves and Vibrations, building off last year's oscillations concepts. **The relevant textbook chapters will be posted as a PDF in Google Classroom, so please make sure to join soon!** After you have read the information in the digital copy of the textbook and watched the recommended YouTube videos, you will complete the attached assignment that will be collected in the middle of the first week of school, on Thursday (9/5/24). **There will be an assessment based on the summer work midway through the second week of the school year (likely 9/10/24 and/or 9/11/24).** 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 *weekly* throughout the summer.

You are expected to do this work *on your own*. Evidence of copied answers will result in penalties for *all* parties involved. You do not want to begin the school year on this note. You are also expected to *show all work* for full credit on these problems (where applicable). **Neatness counts as well** – and like I mentioned earlier, please feel free to email me with any questions you have throughout the summer work. I am here to help!

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While reading the assigned sections from the textbook, **create an in-depth outline ONLY for the following Chapter 13 sections: 13.4, 13.7, 13.8, 13.9 and 13.10.**

***The outlines of these sections listed above are part of the summer work and will be checked along with the problems/questions.** These sections introduce Waves & Sound, which will be our first unit of the school year. You may use these outlines as open notes for the early year reading quizzes.

The questions and problems within the assignments posted to Google Classroom should be answered on printed out copies of the assignments, in the space provided. If you need more space than what was provided, you can finish the problem(s) on a separate sheet of paper. **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 answered with complete sentences and justifications when prompted.

1) **Chapter 4 – The Laws of Motion**
REVIEW sections 4.1-4.6 (**Look at the example problems**)

This part is a total review of the things learned in AP Physics 1. After refreshing these sections from the digital textbook, please answer all parts of the posted assignment titled:

SA.01

2) **Chapter 13 – Waves & Sound**
Read sections 13.1, 13.2, 13.4, 13.7, 13.8, 13.9 and 13.10 (**Look at the example problems in these sections**) [NOTE: 13.1, 13.2 and 13.4 are all review of oscillations from AP Physics 1]

After reading and outlining the sections from the digital textbook, please answer all parts of the assignments titled:

SA.02
SA.03

3) **Chapter 15 – Electric Forces and Electric Fields**
Read sections 15.1, 15.2 only

A few questions at the end of the assignment titled, “SA.01” in the “Miscellaneous Physics” section are based upon concepts within these two sections.