WOODLAND HIGH SCHOOL
AP Physics 2019-2020 Summer Assignment

Welcome to AP Physics! AP Physics is a rigorous college-level course designed to provide an introduction to the main principles of physics. The course provides this introduction while emphasizing the development of problem-solving ability.

We will be using the textbook *Physics: Principles with Applications, 5th Edition* by Douglas C. Giancoli (Prentice Hall, ISBN 0-13-611971-9).

Be aware that the College Board now has **four** AP Physics courses: *AP Physics 1*, *AP Physics 2*, *AP Physics C: Mechanics*, and *AP Physics C: Electromagnetism*. This course is to prepare students for the *AP Physics 1* test. This course will not prepare you for the other three AP Physics tests.

Test-preparation book publishers such as Princeton Review offer review books for AP Physics 1. These books contain excellent topic summaries and can serve as a useful resource for those who would like a supplementary text. (There are also review books available for the SAT Physics Subject Test for those of you who are interested in taking that test, but we do NOT cover all that material)

As with most AP courses, the amount of material we will be covering is very large. A rapid pace is required to complete this material and still allow adequate time for test preparation prior to the AP Physics 1 test. You are therefore expected to begin your study before the beginning of the semester by completing the summer assignment below. You do not have to copy the problem, but see below what is required for credit. Your assignment is to be completed the first day of class, but you may correct and/or revise your work as we review the material. The assignment will be turned in on the day of the first test, which will be few days after the beginning of the semester.

Appendix A is a review of the mathematical concepts you will need to know for this course. Make sure you understand this material, especially the trigonometric functions (but don't worry about the trigonometric identities or logarithms right now).

Appendix B is a review of dimensional analysis. Please review this material as well.

Chapter 1 is a discussion of physics and science in general. Hooray for science!
Problems (not Questions): 3, 9, 13, 21, 33, 37, 43

Chapter 2 is on one-dimensional kinematics.
Problems (not Questions): 5, 9, 11, 13, 15, 19, 21, 23, 25, 29, 37, 41, 49, 51, 57, 59, 65

Chapter 3 is on vectors and two-dimensional kinematics.
Problems (not Questions): 9, 11, 19, 27, 31, 35, 41, 51, 69, 71, 73

What to turn in for credit: The problems from chapters 1 – 3
    Must be neatly completed & Stapled, with the chapter problem #s, your name and period
        Full solutions = write the formula used /Show algebra/ Write 5 digits from the calculator (not just the textbook answers)
    Box your final answer. *Check your work… the answers are in the back of the book!*

You are encouraged to work on these problems in study groups rather than individually. If you have any questions about anything, feel free to contact me at BevMatsuda@iusd.org.

Mr. Khan