

Welcome to AP Physics.

My name is Mr. Dolan and I will be your teacher for the upcoming 2020-2021 school year. In order to succeed in AP Physics it is essential that you begin to understand the demands of this course. It is important that you establish a foundation of some basic physics phenomena in order to be best prepared for the start of the school year.

You will be required to complete the first two sections of the general physics course this summer. The first two sections, Kinematics and Dynamics, deal with motion and forces in one dimension. Almost all of our work in AP Physics will be in two dimensions and it is important for you to have an understanding of these concepts in one dimension before advancing into two dimensions.

Sign up for Google Classroom - AP PHYSICS SUMMER WORK - [Class code: **gdqmsgd**](#)

You will find the two sections posted: Kinematics & Dynamics. ****KINEMATICS SHOULD BE DONE FIRST, FOLLOWED BY DYNAMICS.**** Each section contains a presentation, chapter problems, and multiple choice problems; within each presentation are embedded practice problems for you to work on. If you are stuck on any of the problems in the presentation, there is an answer tab that will direct you to a video of the problem solving technique. The chapter problems need to be worked out on your own using the formulas provided in the presentation. The multiple choice problems are for extra practice. All answers are provided at the bottom of the chapter problem and multiple choice problem documents. You should have a new notebook designated for AP Physics where you begin to take notes and record your work.

AN EXAMPLE OF A PROPERLY FORMATTED CHAPTER PROBLEM IS AS FOLLOWS:

An elevator ascends at a constant speed of 4 m/s, how much time is required for the elevator in order to travel 120 m upwards?

***Given: speed $s=4\text{m/s}$
Distance $d= 120\text{m}$***

Unknown: time $t=?$

Formula: $s = d/t$

Manipulate formula: $t = d/s$ (Your unknown need to be isolated on the left side of the equation. In this case we needed to solve for time so we multiply both sides by time, and then divide both sides by speed to get t alone on the left side.)

Plug in numbers: $t = d/s \rightarrow 120/4 = 30$ seconds or 30s

All chapter problems need to be completed by the first day of class. All work must be shown for each chapter problem. It is important to show all work and not just the answers; again the answers are provided for you on the bottom of the document. Kinematics and Dynamics chapter problems must be completed by the first day of class. You may use additional resources such as Youtube or Khan Academy if you are struggling with any concepts.

I look forward to working with all of you this year and accomplishing great things on the AP Physics exam. If you have any questions regarding the tasks please feel free to email me. I will not answer emails about specific chapter problems as it is your job to figure to work through some of these challenging questions. Enjoy your summer and I look forward to seeing you all in September - whether it is virtually or in person.

Take care,
Mr.Dolan