

AP 1 Physics Summer Work 2025

Join the Google Classroom!!

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Welcome to AP Physics year one! This year we will be working to master the material given on the AP 1 Physics exam. We will also be working on a better understanding as to how the physical world works. In order to achieve these we must lay some groundwork in order to progress at a reasonable pace. The following is the material I expect you to learn. Do not save this for the week before school starts. **THERE WILL BE A TEST THE FIRST DAY IN CLASS ON THIS MATERIAL.** Feel free to email me with any questions I will respond as soon as I am able. crocker@swampscott.k12.ma.us

1. Watch these Videos on flipping physics and take notes, he is a great resource and has great lessons on vectors

<http://www.flippingphysics.com/vectors-and-scalars.html>

<http://www.flippingphysics.com/tip-to-tail-vector-addition.html>

<http://www.flippingphysics.com/cardinal-directions.html>

<http://www.flippingphysics.com/vector-components.html>

<http://www.flippingphysics.com/introductory-vector-addition-problem.html>

<http://www.flippingphysics.com/data-table.html>

<http://www.flippingphysics.com/complicated-vector-addition.html>

(You can hit next video to go through videos more easily)

2. Read through and take notes on the vectors and direction:

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Vectors-and-Direction>

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Vector-Addition>

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Resultants>

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Vector-Components>

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Vector-Resolution>

Include questions 1-6 aswell in your notes-

<https://www.physicsclassroom.com/class/vectors/Lesson-1/Component-Addition>

3. Play Vector guessing game and get a score over 400 points. My highscore after my first try is 634. Try to beat me! Post a screenshot

<https://www.physicsclassroom.com/Physics-Interactives/Vectors-and-Projectiles/Vector-Guessing-Game/Vector-Guessing-Game-Interactive>

4. Pay name that vector game screenshot when you have achieved all of the stars

<https://www.physicsclassroom.com/Physics-Interactives/Vectors-and-Projectiles/Name-That-Vector/Name-That-Vector-Interactive>

5. A boat in the ocean travels 2 km at an angle of 30 degrees south of west. It then travels at 1 km at an angle of 80 degrees east of north. Finally the boat travels 3 km at an angle of 10 degrees west of south. How far away is the boat from its original position? What direction is the original position from where the boat stopped?

6. Make up a vector addition or subtraction similar to the problem above using 3 vectors. Include the solution on a separate sheet of paper.

If you need extra help. These videos will be able to point you in the right direction on vector addition. I also am available sporadically throughout the summer. Shoot me an email.

<https://www.youtube.com/watch?v=7p-uxbu24AM>

<https://www.youtube.com/watch?v=tvrynGECJ7k>