AP Physics Summer Assignment 2025

Congratulations on your acceptance to the AP Physics program at NHS. Here's how I recommend you prepare to maximize your chances of success in the upcoming year:

June/July: Relax. Decompress. Don't think about physics. Elite athletes at the peak of their sport enjoy off-seasons. You deserve one too; burnout is real.

First two weeks of August: Practice your fundamentals. For us, this means ensuring your algebra is rock-solid. Here's a list of ideas you'll need to be fluent with:

- Solving linear & quadratic equations
- Solving linear & nonlinear systems of equations (methods of elimination & substitution)
- Understanding linear functions
- Solving right triangles
- <u>Vectors</u>

For most of you this won't require much time/upkeep — I think starting with the unit tests of the respective Khan Academy units is a good idea. If you do well, then there's not much review necessary. If you struggle more than you anticipated, dig into some of the practice offered until you can do the problems quickly and accurately with minimal effort. Remember, *these are the fundamentals* — *they need to be automatic.*

Last two weeks of August: Start reviewing your physics notes from the previous year. Units 1, 2, 3, and 5 of the KA high school physics curriculum comprise a decent review of the material we'll be covering. Make sure you're confident in your ability to describe constant acceleration motion, apply Newton's second law, and apply conservation of energy appropriately.

The ideas covered in honors and AP Physics are largely the same. The differences are the depth at which you'll need to reason and the speed with which you'll need to work.

Note: there is no work to be turned in on the first day of school. However, I'll be starting class under the assumption you've followed the recommended review path, so be prepared!