

HL going into Year 2 IB Physics...*Fun during the break Activities!*

I have organized this fun into 7 nice little tasks. We have to do this for IB so we might as well have fun with it. I **encourage you** to get together, if you can, to do these.

While everything is **due** on the **first day** of class, I wouldn't wait until the last couple of days to do them! Typical time needed is in **red**. Total time should be at least **5 to 8 hours**.

Here you go:

1st) 1hr* Using your IB equation packet, [IB Objectives](#), your [Tsokos Topic 7 pdf](#), and the internet; please **READ** and **Outline** the concepts for Atomic and Nuclear Physics (Core Topic 7.1 - 7.2). This simply means that you read what is in the IB document and summarize the key points. If you do this online you can work together in a group on a **shared google doc** but make sure you read and understand the whole thing as best you can. An online one is nice since it will be a better outline and you can cut and paste pictures and make links. It's fine if you really want to do a good job and spend more than one hour, these documents are great to have when review time happens later in the year...

2nd) 1hr Do the **Alpha Particle Decay Lab**. Here is the [link](#).

3rd) 1hr Using our [Tsokos Topic 7 pdf](#) (or your text) you are going to use a "Self Quizzing Method" on the Twelve "**Worked Examples**" in sections 7.1 & 7.2. (Don't do 7.3)

1. Cover the answer and try to do the problem yourself.
2. Uncover the answer and see if you were correct.
3. If "yes" go to the next problem. If "no" repeat steps 1&2 as many times as needed. Go back and read the section if needed.

4th) 1hr Do the **Binding Energy Lab**: (Using a database!). Here is the [link](#).

5th) Do **2+ hours** work on the "Test Yourself" problems in the [Tsokos Topic 7 pdf](#). The answers are in the back of the pdf. There are 24 of these so you might not get them all done! Do as many as you can in **2 hours** of focused work. I strongly urge you to use the "Self-Quizzing" method on this!

6th) Optional Please realize that you will be VERY busy when the 2nd Semester gets going, so please review things **now**. When IB exam review time comes, you will be glad that you did! I strongly urge you to read the [IB Objectives document](#) on those units and then use [Kirk](#) to see how well you understand what is written there in IB style. Or seriously just **don't do this since** you have other stuff to do. In anycase, I hope that this wasn't too painful. For new students we have done IB topics 1-6,9

7th) LESS Optional Work on your IA!! At this point that means learning the requirements thoroughly and figuring out your topic/question! I have organized this for you [here](#).

Have fun and learn some cool stuff!!!