Name: IB Physics 2

**Summer Assignment 2019**

This fall/winter, you will embark on the adventure of a lifetime – the IB Physics Internal Assessment! We will not be choosing topics until mid-October but it is never too early to begin thinking about what is involved and possible topics. What is the IA? Here is some official words by the IBO:

*The internal assessment, worth 20% of the final assessment, consists of one scientific investigation. The individual investigation should cover a topic that is commensurate with the level of the course of study. The performance in internal assessment at both SL and HL is marked against common assessment criteria, with a total mark out of 24. The internal assessment task will be one scientific investigation taking about 10 hours and the write-up should be about 6 to 12 pages long.*

*The task produced should be complex and commensurate with the level of the course. It should require a purposeful research question and the scientific rationale for it. Some of the possible tasks include:*

* *a hands-on laboratory investigation*
* *using a spreadsheet for analysis and modelling*
* *extracting data from a database and analysing it graphically*
* *producing a hybrid of spreadsheet/database work with a traditional hands-on investigation*
* *using a simulation, provided it is interactive and open-ended*

You will eventually get a packet with details and deadlines, but over the summer you are asked to do the following. This will be handed in the first day of school and is graded as a 10 point homework assignment.

Part 1 - Read and grade 3 sample IAs

Read each of the sample IAs and then using the grading template to record a grade **and** a few brief comments for each category. (All of these documents can be found on the RM homepage under Summer Assignments). You should complete 3 separate grading templates (one for each IA).

Part 2 - Propose 3 possible IA topics

Although you have only explored about 60% of the IB Physics curriculum, you are asked to propose 3 possible topics for your investigation. Don’t be afraid to skim through Oxford to think about areas you did not cover in IB Physics 1 such as sound, waves, light, optics, thermal physics, etc. Do your best to be creative. The topic is not to be just be confirmation of a known law/principle but rather an exploration of an idea to which you don’t necessarily know the answer. The title should be in the form of a question or statement that specifically displays what factors you plan to investigate. Example: “How does varying \_\_\_\_\_\_\_\_\_\_\_\_\_ affect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_?” or “The Effect of \_\_\_\_\_\_\_\_\_\_\_\_ on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”

Proposal 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Proposal 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Proposal 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_