

## **IB Physics Summer Assignment: due on first day of school in August!**

**Purpose:** To familiarize yourself with: the IB Physics Internal Assessment (IA), what a good research investigation and IA report will entail, and what IB is looking for in a Physics IA.

### Your Tasks:

1. Read the Kognity chapter on the IA and make at least a page-long hand-written outline of the main points of the chapter.
2. **Read 3 examples of Internal Assessment Investigations.** You can find some on the LCPS IB Physics Google Drive, or here: [https://ibpublishing.ibo.org/server2/rest/app/tsm.xql?doc=d\\_4\\_physi\\_tsm\\_1408\\_1\\_e&part=8&chapter=1](https://ibpublishing.ibo.org/server2/rest/app/tsm.xql?doc=d_4_physi_tsm_1408_1_e&part=8&chapter=1) or search on your own. In fact, make sure that one of your examples is from that website (you'll use that example for Task 3).

**For each of the three IA examples you read, write (or type):**

- i. The IA title
  - ii. The type of IA (hands-on experimental, database, or simulation/modeling)
  - iii. Three specific things you thought the student did well and specifically WHY you thought they did these well
  - iv. Two specific things you think the student could have improved upon and specifically WHY you think these could be improved upon
3. **Grade!** For just ONE of the three IA examples you read (make sure it is one from the above website), do the following things:
    - i. **Grade it** according to the attached IB Internal Assessment rubric (out of 24 points).
    - ii. Click on the specific IA you used from the above website, then on the right, click on “Examiner Comments.”
    - iii. **Compare how you graded the IA to how the IB person graded it.** In a paragraph, reflect on the similarities/differences in your grading process, in particular answering the following questions:
      - *On which areas of the rubric did you give significantly different marks than the IB grader? Why do you think your marks were so different?*
      - *Did the IB grader's comments give you insights into the grading process or this specific IA that you didn't have when reading it on your own?*
      - *Are you surprised by the grade the IA actually received? Why or why not?*
      - *Did the IB grader grade more generously or harshly than you imagined they would?*
  4. Finally, **tell me what you're thinking about for your own IA!**
    - i. If you are fairly certain of your topic and think it's IA-worthy, write down your research question and a basic outline of how you'd go about it.
    - ii. If you're uncertain still, write down three potential areas of interest to you --- could be as general as “mechanics” or “electricity,” or slightly more specific, like “solar power” or “springs,” or could be fully-developed research questions. Also, tell me if you think you'd like to do a hands-on, database, or simulation/modeling IA. (If you have your heart set on a topic in quantum, nuclear, or astrophysics, database or simulation/modeling will be the route you'll have to take.)

FYI, your IA is 20% of your IB Physics grade (IB grade, not Lowcountry grade). The other 80% is made up of Papers 1, 2, and 3... tests which you cannot control!

**Your IA is the portion of your physics grade that you have the most control over. That's why it's so important!!!**

Type of assessment	Format of assessment	Time (hours)	Weighting of final grade (%)
External		4.5	80
Paper 1	40 multiple-choice questions	1	20
Paper 2	Short answer and extended response questions (Core and AHL)	2.25	36
Paper 3	Data- and practical-based questions plus, short answer and extended response questions on the option	1.25	24
Internal		10	20
Individual investigation	Investigation and write-up of 6 to 12 pages	10	20