PHYSICS SL (2022-2023)
HORTON HIGH SCHOOL

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Welcome to Physics SL!! Physics SL will be a demanding & challenging course and should appeal to hard-working & self-motivated students. This is a two year in-depth Physics course with an emphasis on laboratory investigations. All students taking Physics SL will participate in a Group 4 (experimental sciences) project. Evaluation of the course will be based on the internal assessment and external examinations written in May of 2023. Students should have a strong background in mathematics & ability in science.

The core topics of study include: measurements & uncertainties, mechanics, thermal physics, waves, electricity & magnetism, circular motion & gravitation, atomic, nuclear, & particle physics, and energy production. In addition to the core topics, relativity, engineering physics, imaging or astrophysics may be covered as an option.

Required Materials:

- 3-ring binder (dedicated to Physics)
- dividers
- looseleaf
- graph paper
- pens, pencils, coloured pencils, ruler
- scientific calculator (see list of approved calculators in Reference Booklet)
- Hardcover lab book (to be used as a log for your practical work)

Text & Other Resources

- **Standard Level Physics** by Hamper, Pearson Baccalaureate (2014) ~ ebook
- **Other Resources:**
  - **Physics Standard Level** by Pat Roby, OSC (2015)
  - **Physics for the IB Diploma** by K.A. Tsokos (2014)
  - **Physics: For use with the IB Diploma Programme** by Dickinson (2012)
  - **Standard Level Physics** by Hamper & Ord, Pearson Baccalaureate (2007)
  - **Physics SL: Approach your exams the IB way** by Homer, International Baccalaureate Organization (2011)

IB Evaluation

- External Assessment (*80% of final mark*)
    - Paper 1 (20% /45 minutes) ~ 30 multiple choice questions on the core (**no calculator**)
    - Paper 2 (*40% /75 minutes*) ~ short-answer and extended response questions on the core material
    - Paper 3 (*20% /60 minutes*) ~ questions on the core and option material
        - Section A ~ one data-based question and several short-answer questions on experimental work
        - Section B ~ short-answer and extended response questions from one option

- Internal Assessment (Individual Investigation) (*20% of final mark*)
    - Physics SL students are required to spend 10 hours completing an Individual Investigation. The Investigation will be graded internally and then submitted to the IB for moderation.

Course Work
All course work will be evaluated using the IB scale of 1 to 7. It is important for you to realize that your mark is **NOT** "out of 7". All completed work will be kept in a file and is not to leave the classroom.

- Quizzes ~ quizzes will be given regularly and will be mostly multiple choice
- Tests ~ tests will be given for each topic and will be a mixture of multiple choice & extended-response questions
- Exam ~ a mock exam will be given in February or March of 2018
- Practical scheme of work ~ students will complete 20 hours of practical activities, 10 hours completing an Individual Investigation, and 10 hours completing the Group 4 Project.

Extra Help ~ available every other day (please sign up)
Academic Honesty ~ a mark of zero will be assigned if cheating or submitting copied work (refer to Reference Booklet)
Missed Time ~ it is your responsibility to get caught up!!
Expectations ~ it is important to always have high expectations for yourself, but it is also important to be realistic!