

**AP PHYSICS 1
SUMMER ASSIGNMENT
THE BOLLES SCHOOL
MR. LIPP**

Congratulations on accepting the challenge of AP Physics 1 for next school year! To maximize our class time, students enrolled in AP Physics 1 must complete the following tasks prior to the first day of class.

MATH REVIEW

AP Physics 1 is more an Applied Mathematics course than a Science course. It is because of this that the Bolles Curriculum Guide states that all students in AP Physics 1 must either have already completed or be concurrently enrolled in Precalculus. Algebra 2 and Geometry skills will not be reviewed at the start of the year, so it is essential that you complete a short review of these skills. These skills include metric conversion, quadratic equations, systems of simultaneous linear equations, basic right triangle geometry and trigonometry, and algebraic equation rearrangement.

TASK 1:

- The “AP Physics 1 Summer Math Review” worksheet is available on Mr. Lipp’s class website – www.lippbolles.com – in the “DOWNLOADS” -> “AP PHYSICS 1” menu. The worksheet is the first item in the list of downloadable documents. You can also reach this page directly with the following link: <https://lippbolles.weebly.com/ap-physics-1.html>.
- Complete all problems and bring your completed assignment to the first day of class. Your solutions must show ALL work to be scored as complete.

TEXTBOOK AND SUMMER READING

The College Board designed AP Physics 1 as a course that does not require a first year of Physics. Though students who have completed a full year of Physics or Physics Honors will have a slight advantage, many students who have never had any Physics preparation have been highly successful in AP Physics 1. Although a year of Physics is not required, the Bolles Curriculum Guide states that all students must have completed a year of Biology along with a final grade of B+ or better in either Chemistry AB or Chemistry Honors. The summer reading below will introduce students (or review second-year Physics students) to the first unit on Kinematics, or the study of motion.

TASK 2:

- Obtain the required textbook for the course:

Knight, Randall, Brian Jones, and Stuart Field. *College Physics: A Strategic Approach, 4th ed (AP edition)*. New York: Pearson, 2019.

ISBN: 9780134779218

TASK 3:

- Read Chapter 1 “Representing Motion” (pp. 4 – 25)
- Read Chapter 2 “Motion in One Dimension” (pp. 32 – 61) and be prepared to discuss the answers to the “Conceptual Questions” # 10, 11, 12, 13, and 14 on p. 63.

REQUIRED SOFTWARE

Vernier's LoggerPro will be used for graphical and video analysis in class and, more importantly, in laboratory investigations.

TASK 4:

- Download and install on your laptop or tablet the LoggerPro software at the following links according to your operating system:

Windows 10, 8.1, 7

<http://www.vernier.com/d/qfijq>

MacOS 10.12, 10.11, 10.10

<http://www.vernier.com/d/p0pgf>

- If your operating system is older or not listed above, contact Mr. Lipp at lippm@bolles.org for additional instructions.
- The Chromebook version of LoggerPro is not recommended as it does not allow video analysis, which will be performed in several laboratory exercises.

***If you have any further questions,
please contact Mr. Lipp at lippm@bolles.org
and SEE YOU IN AUGUST!***