

**AP PHYSICS 2 SUMMER ASSIGNMENT 2019-2020 – Mr. Jordan [tjordan@oratoryprep.org](mailto:tjordan@oratoryprep.org)**

Dear Prospective AP Physics 2 Students,

Welcome to AP Physics 2! This course will be an intense journey through many topics in Physics culminating in May with the AP Exam. In order to cover all the materials that may appear on the exam, you will need to complete the following readings and assignments over the course of the summer. These assignments will be collected over the course of the summer, and will be counted towards your homework grade. Also, the material will be tested during the first two weeks of school.

The following is a list of required assignments to do over the summer:

**Text Book: Physics: Principles with Applications, 6<sup>th</sup> Edition  
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- **Chapter 8: Rotational Motion**
- **Chapter 9: Static Equilibrium; Elasticity and Fracture**
- **Chapter 11: Vibrations and Waves**
- **Chapter 12: Sound**
- **Chapter 10: Fluids**
- **Chapter 13: Temperature and Kinetic Theory**
- **Chapter 14: Heat**
- **Chapter 15: The Laws of Thermodynamics**

**Purpose:** This assignment will allow students to become familiar in utilizing a college-level text to begin their study of Advanced Placement Physics 2. By completing these chapters, we will assure that students will have studied the entire required curriculum by the May 2020 exam.

**What the students need do:**

For each of the chapters you need to:

1. Read the chapter:
  - a. Make note of the terminology used
  - b. Be clear on the concepts being presented
  - c. Review the examples provided in the text carefully
  - d. Read and understand the captions of figures and diagrams
  - e. Read the information presented in the margins
2. Read thoroughly the *Summary* at the end of each chapter.

**Evaluation:** These assignments will be graded; and the material will be tested in the first two weeks of classes. All problems must display full solutions, i.e. all work must be shown

**Assignments:**

**Chapter 8:** Pp 217-225 Problems 4, 12, 16, 18, 24, 28, 48, 52 General Problems 70, 72, 78, 86

**Chapter 9:** Pp 247-254 Problems 8, 14, 20, 36, 44, 50, 52, 56 General Problems 58, 64, 66, 70

**Chapter 11:** Pp 317-318 Problems 12, 16, 32, 44, 46, 56, 58, 64; General Problems 68, 76, 82, 84

**Chapter 10:** Pp 281-285 Problems 6, 10, 16, 28, 40, 44, 52, 62; General Problems 68, 76, 84, 86

**Chapter 12:** Pp 347-351 Problems 4, 10, 16, 30, 44, 54, 60, 64; General Problems 68, 70, 74, 84

**Chapter 13:** Pp 380-383 Problems 6, 12, 24, 28, 34, 44, 56, 62 General Problems 76, 86, 92, 96

**Chapter 14:** Pp 404-407 Problems 6, 12, 14, 18, 24, 30, 36, 38 General Problems 46, 52, 60, 66

**Chapter 15:** Pp 433-437 Problems 6, 8, 10, 22, 24, 26, 32, 42 General Problems 52, 54, 56, 64

If you have questions, please do not hesitate to e-mail me.

**Assignments for Chapters 8, 9, 11 & 12 should be submitted via e-mail by Monday, July 22, 2019.**

**Assignments for Chapters 10, 13, 14 & 15 should be submitted via e-mail by Monday, August 26, 2019.**