



**Test Prep and Admissions**

## For AP Physics B & C Teachers: How to Use This Book in Your Classroom

This Kaplan review book is an invaluable tool for students, but teachers can also use it to understand the format of the exams and to cover the expansive amount of content for the AP Physics B & C courses. Inside, in addition to an extensive review and sample questions and tests, you will find the basics of the AP Physics B & C exams, scoring rubrics, and tips on test-taking strategies and stress management to share with your students.

Whether you cover the material for the AP Physics B & C exams in the classroom or give students material to review as homework, this book will help you get your students to the level they need to be at in order to score well on the exams. Incorporating the material covered in this book into your coursework is not difficult; in fact, one chapter can be covered for each lesson in your course. Let's start from the beginning.

### STRUCTURE, STRATEGY, AND ATTITUDE

Part One of this book provides a basic overview of test structure and scoring. Understanding the structure of the AP exams can help students develop confidence in their ability to perform well on the exams. It is important they know how the free-response questions are scored, as well as the basic features of a good answer to these types of questions. This section will help students learn proper exam pacing, and how to use critical thinking skills to effectively eliminate distracters on the multiple-choice section of the exams. The essay scoring rubrics provided are also a valuable tool teachers can use when grading their own in-class essays.

Stress management skills are an essential part of doing well on the exams. The key to staying relaxed is to be fully prepared for the exams and to have a plan to tackle any difficult situation. Preparing for the stress and confusion that can be part of the AP process will help students learn how to deal with Test Day anxiety.

### THE DIAGNOSTIC TEST

Teachers can use Part Two, the diagnostic test, to gauge student strengths and weaknesses. This short, 20-question sampling of test-like questions should be given to your students as a "starter," to see what areas they need to work on. Have your students take the test, then tally their results. You can divide your students into study groups depending on the areas in which they're having trouble. Or, you can mix students up so that those who scored well on certain sections of the diagnostic test help students who did not score well in those sections, and vice-versa.

If you notice that the entire class needs work on a certain section you can dedicate one day to studying that particular section of the test. To study a section, simply have your students read over the corresponding review chapter, along with related study material. Afterwards, have them take a full-length test or create some of your own study questions concerning the topics they were shaky on. This diagnostic test is a great way to determine general trends of student performance and to create a focus for future lesson plans.

## THE REVIEW SECTION

Part Three, the review section, is composed of chapters containing all of the topics covered on the AP Physics B & C exams. Although this Kaplan review book should not function as a replacement for a comprehensive college textbook, each chapter can be integrated into a lesson plan you have already created for the topic, or it can be used as the basic framework of a lesson plan. This review section is an ideal guide for framing some of the “big picture” concepts that are important for the course.

Have students read through the chapter material, either in the classroom or for homework, and discuss the major concepts in each chapter. Students should answer study questions at the end of each chapter, and review the answer explanations so that they understand not only why the correct answer is right, but why the wrong answers are wrong. Students should also think about these questions in terms of test structure and strategy. It is often useful to contrast various question types and discuss which ways of approaching a problem are likely to be successful. Understanding the right way to approach a problem is often central to answering it correctly. It is fundamentally important that students understand why a specific answer is the right choice; they must also learn the cues that help them attack the problem efficiently.

Free-response portions of the review are set aside so that students understand the concepts involved in writing essay responses for broader sections. These portions of the review do not reiterate content for a section, rather they review concepts that students should understand in order to write a thorough, cohesive essay.

Rather than simply being drilled on the review material, students should read, study, and incorporate the concepts of this review book into their broad understanding of the material. While some subject matter is pure memorization, a large part of the AP Physics B & C exams require application of concepts students have learned to concrete situations. Students should take a genuine understanding of concepts and themes from this review section, not a jumbled heap of facts and definitions.

## TAKING THE TESTS

The two full-length practice tests in Part Four are some of the most valuable tools that your students have at their disposal before taking the actual AP Physics B & C exams. The tests are made to be taken in the same time limit as the actual test, with test-like questions and the same number of questions as the actual exams.

If you have the correct amount of class time to devote to a full test, set aside one class period that mimics the actual time limit of the test. If not, try to set up a special session for students to take a mock exam outside of class. Have students come in, take the test during the allotted time limit, and hand in their papers. This should be done about one month to two weeks before the actual exams—after all of the review material has been covered in class, but not right before they are scheduled to take the exams. Grade the practice tests using the answer key at the end of each test. If students get more than 30 percent of the exams incorrect, they still have a lot of studying to do before they can expect to get a good score on the exams.

Remember, all themes of the AP course are covered within these practice exams. When everyone’s tests have been graded, have students identify what areas of study they still need to work on, then focus on those areas for each student. Hold study sessions; have students integrate and incorporate AP exam topics into the daily lessons leading up to Test Day. Students should study the answer explanations for questions they got incorrect until they understand why each correct answer is right. If students still need work on specific questions, have them review the chapters in which those questions are covered.

Have your students take the second full-length practice test, and have each individual figure out the best method of study from there. If students are well-prepared for the AP exams, they will be less likely to cram material into their brains at the last minute and more likely to get a good night's rest before the exams. Taking tests that mirror the actual AP exams will make students familiar with the timing and format well in advance, giving them a great advantage on Test Day.

It is important both to *be* well-prepared and to *feel* well-prepared. Careful study and practice over time, as outlined above, builds confidence and a deeper knowledge of the material. Students who prepare this way are less likely to spend the nights before the exams desperately trying to cram test material into their brains. Using this book is one step in giving your students the best possible preparation for the AP Physics B & C exams.

Best of luck to you and your students!