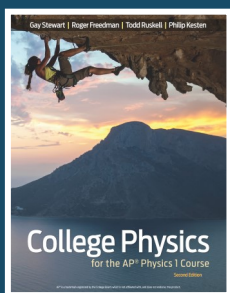


College Physics for the AP[®] Physics 1 Course, Second Edition

Tabbing Bookmark

go.bfwpub.com/Stewart2e



Expert Authorship *pg. x-xi*

Gay Stewart is an Eberly Professor of STEM Education and Professor of Physics at WVU as well as founding director of the WVU Center for Excellence in STEM Education. She chaired the College Board's Science Academic Advisory Committee and co-chaired the AP[®] Physics Redesign commission, responsible for AP[®] Physics 1 and 2, and the AP[®] Physics 2 Development Committee. She was the 2019 Oersted medalist - AAPT's most prestigious award.

100% AP[®] Alignment/Organization *pg. v-ix*

Focusing on the information required by the AP[®] Physics 1 curriculum and skills needed to be successful in the course and on the exam, this book was developed specifically with AP[®] in mind and is 100% aligned to the 2019 AP[®] Physics 1 Course and Exam Description.

Clear Language *all pages*

Written very purposefully, the text, clearly and accurately explains the material to help avoid and eliminate misconceptions students may have while learning physics - and also allows the content to be **multi-modal**. To support this clear language, many features serve as **Entry Points** into the content, in order to accommodate different levels and styles of learners.

Real-world Case Studies *pg. 29, 135, 367, 643*

At the start of each unit, these key content areas invite students into the world of physics by asking them a real-world question and then showing how physics answers it.

You Will Learn To/What Did You Learn? Boxes

pg. 2/23, 30/75, 84/124, 540/581

Each chapter begins with a **You Will Learn To** box that clearly highlights the chapter's learning goals - providing students with a clear scope of study - and ends with a **What Did You Learn?** box that connects each learning goal to the relevant chapter section, worked example, and end-of-section practice problem, which is great for review or for reverse engineering through the chapter. **Entry Point!**

Art and Equations Designed to Teach

pg. 47, 141, 210, 376, 466, 516, 527, 647

Every equation and most diagrams provide a visual narrative in the form of word bubbles that clearly break down important physics topics to help scaffold the content to students as they learn the material. Each image has been carefully chosen and developed to help students comprehend learning goals.

Equation in Words *pg. 35, 70, 191, 278, 377, 554, 675*

Found throughout the text, this feature translates complex equations into everyday language that everyone can understand, helping students learn the material effectively and correctly. **Entry Point!**

Need to Review? Boxes *pg. 57, 191, 378, 408, 506, 602*

Found throughout the text these boxes provide students with on-the-spot notes that explain where to find additional support and earlier-covered concepts that will help them understand the material currently being covered.

Watch Out! Boxes *pg. 16, 48, 259, 452, 547, 600*

Appearing often, these draw attention to important but commonly overlooked or forgotten ideas and concepts that a student needs to remember and consider as they read through the chapters.

AP[®] Exam Tips *pg. 13, 113, 254, 329, 551, 645*

Written by a former Chief Reader and found throughout the text, these boxes offer critical hints and tips related to the material on how to succeed on the AP[®] Physics 1 Exam.

AP[®] Group Work Questions *pg. 81, 184, 320, 501, 667*

At the end of each chapter, these AP[®]-specific questions are designed to be solved as an in-class group work activity helping students develop the needed communication and critical thinking skills for success.

AP[®] Practice Problems *pg. 82, 184, 363, 536, 668*

At the end of each chapter, these problems, written and designed to be specifically for AP[®] Physics 1 (down to the detail, including the use of black and white art), provide students with essential practice solving the types of problems found on the exam.

Two Full-length AP[®] Practice Exams *pg. 422-44, 714-738*

Appearing at the end of Chapter 9 and 15, these exams match the actual AP[®] Physics 1 exam in size and scope, giving students a chance to test their mastery of the content and solidify their test-taking skills.

The Takeaway *pg. 20, 121, 193, 284, 345, 485, 569, 700*

At the end of every section The Takeaway provides an opportunity to practice the problem-solving skills presented throughout the chapter in a unique three-tiered approach, culminating in the working out of fully conceptual AP[®] Physics 1 style problems - helping to not only ensure a students understanding of the physics but prepare them for the AP[®] Exam. **Entry Point!**

The Takeaway Practice Problems (Takeaway Tier One)

These problems test students' knowledge of section summary points by putting concepts into practice. Easy cross references correspond to worked examples in the chapter to provide extra support when solving the problems.

Reasoning Skill Builders (Takeaway Tier Two)

These problems guide students toward developing the reasoning skills they need to be successful physics students, introducing them to the conceptual skill building needed for AP[®] success.

AP[®] Skills in Action (Takeaway Tier Three)

These fully conceptual AP[®] Physics 1 style problems allow a student to put together what they have learned in tiers one and two and approach a question as they should on the exam.

Worked Examples/Now Work

pg. 19, 50, 116, 279, 296, 333, 472, 507, 617, 705

Found in the green boxes throughout the text, **Worked Examples** provide detailed but efficient notes on not only how to approach and set-up an example problem and then solve it, but also reflects on the solution. Each one ends with a **Now Work** note that references a related problem in the Takeaway allowing students to immediately practice. **Entry Point!**

Visual Chapter Summary *pg. 24, 125, 358, 415, 532, 634*

At the end of every chapter, this feature highlights the key topics of the chapter and connects each one with the relevant equations and/or figures, a great study tool for quick review. **Entry Point!**

Chapter Review Problems *pg. 24, 129, 217, 359, 534, 710*

At the end of every chapter these problems provide students with a focused practice of the chapter's concepts.

Key Terms *pg. 76, 125, 265, 415, 634*

At the end of each chapter, this list provides students with the key terms that need to be understood, and provides the relevant page number where the term was introduced for them to review. Definitions for these terms can be found in the Glossary/Glosario.

Glossary/Glosario *pg. G1 - G16*

This feature gives students a handy guide to look up definitions of bolded terms from throughout the textbook. The side-by-side glosario is available for students who would benefit from Spanish-language support for their reading.

Math Tutorial *pg. M1 - M20*

This appendix supports students who need additional math review, covering basic results of algebra, geometry, trigonometry, and calculus - complete with stepped out examples.

Answers to Odd Problems *pg. ANS1-ANS95*

Included in the back of the book, these "mini-solutions" highlight key steps in the problem-solving process so that it's easy for a student to see how to correctly solve the problem.

An All-Inclusive Program

Along with the student text the Stewart program offers the following additional items and resources that allow you to create an all-inclusive AP[®] Physics 1 classroom, with no need to pull support or rely on content from any other sources.

- **SaplingPlus digital platform** - complete with a fully accessible e-book and online homework system with targeted feedback, and nearly 1000 additional questions.
- **Strive for a 5: Preparing for the AP[®] Physics 1 Examination** - an essential chapter-by-chapter study guide for the student text and prep guide with 2 Full AP[®] style practice exams.
- **Teacher's Edition** - Written by veteran AP[®] physics teachers and College Board[®] consultants, this wrap-around Teacher's Edition is full of creative and insightful ideas into teaching, pacing, and planning the AP[®] Physics 1 course making it an indispensable tool for new and experienced teachers alike.
- **Teacher's Resource Flash Drive** - Includes all of the resources that teachers need to cater their curriculum to the student, allowing them to fully utilize the text and corresponding assessments.
- **ExamView[®] Assessment Suite** - With over 1200 questions written by the extended team of authors and AP[®] content experts, this software and test bank allow the teacher to create quality tests and quizzes to go along with the curriculum.
- **iOLab Wireless Lab System** - This handheld device allows a teacher or students to perform virtually any physics experiment. The Stewart 2e teacher resources include iOLab activities.

go.bfwpub.com/Stewart2e