Advanced Placement®
Science Program Overview

AP Biology
AP Chemistry
AP Environmental Science

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Foster Memorable Learning Experiences

Go beyond core programs and challenge students to "think like scientists" while preparing them for success on AP exams with materials from McGraw-Hill Education. Approachable for teachers and students alike, our dynamic Advanced Placement science programs:

- Fully align with College Board AP content standards.
- Are authored by nationally recognized scholars.
- Immerse students in college instruction practices through complete digital or hybrid learning experiences.

McGraw-Hill Education offers students rigorous science content that is stimulating and engaging with real-world applications and hands-on investigations, while providing the right tools and support to allow you to focus on what you do best: teaching.
The AP® advantage

McGraw-Hill Education provides the first and only comprehensive, 3-step Advanced Placement Program® solution designed to help students overcome obstacles to AP® success. The AP advantage program suite offers powerful tools and personalized resources that provide students support before class starts, ensure success throughout the course, and build confidence for the AP exam.

Follow these 3 steps to help your students earn a 5:

**STEP 1**

*ONboard* is the self-paced program designed to build the necessary skills and background knowledge for the AP course.

**STEP 2**

*Connect* is the robust assignment and assessment platform that provides program support, tools, and resources, all in one convenient online location.

**STEP 3**

*SCOREboard* is the adaptive AP test prep solution complete with personalized learning plans and four complete AP practice exams.
An Inquiry-based Approach to Your AP Biology Course

Mader's *Biology* focuses on inquiry-based learning and the AP Biology curriculum, using thought-provoking examples to introduce Big Ideas. Students learn science practices and review the process of science. Features within the text contain content focused either on one of the AP Big Ideas or on the Nature of Science.

Mader's *Biology* also offers:

- Essential Questions at the beginning of each chapter that guide student reading.
- Big Ideas and science practices introduced in Chapter 1.
- Applying the Big Idea questions that provide students with practice answering AP style Free-Response Questions.
- *AP Focus Review Guide* workbook which helps students review and apply the AP essential content covered in each chapter.
- An *AP Teacher’s Manual* which provides teaching strategies, suggested activities, and labs.
- Connect featuring *SmartBook™*, an adaptive eBook built on the *LearnSmart™* engine.
- A downloadable eBook
Comprehensive Print and Digital Solutions for AP Biology Success

*Biology* © 2017 is a comprehensive text that uses an inquiry-based approach and features a robust digital program, making it the perfect solution for today’s AP Biology classroom. The *Biology* learning system uses unique tools and chapter designation to help guide students through their study of AP Biology. Chapters have been designated as either an *AP Essential Knowledge* or an *AP Extending Knowledge* chapter. The content covered in AP Essential Knowledge chapters represent core concepts from the AP Biology Curriculum, while AP Extending Knowledge chapters represent core concepts. Raven’s *Biology* also offers:

- Big ideas and science practices introduced in Chapter 1.
- A NEW *Focus Review Guide* workbook, which helps students review and apply the essential AP content covered in each chapter.
- A robust *AP Teacher’s Manual* with a detailed pacing guide, chapter summaries, answers to student edition chapter assessments, suggested activities, and labs.
- Connect® with an AP *SmartBook™* focused on core content chapters and AP Biology Chapter Banks for practice answering AP-style questions.
- A downloadable eBook.

**Chapter Contents**

4.1 Cell Theory
4.2 Prokaryotic Cells
4.3 Eukaryotic Cells
4.4 The Endomembrane System
4.5 Mitochondria and Chloroplasts: Cellular Generators
4.6 The Cytoskeleton
4.7 Extracellular Structures and Cell Movement
4.8 Cell-to-Cell Interactions
Chemistry
Twelfth Edition © 2016
Chang

A Traditional Favorite of Teachers and Students
With its straightforward writing style and proven problem-solving strategies, Chemistry is ideal for the AP Chemistry classroom. Chapter-opening Essential Questions guide students in pinpointing essential AP content, including the Big Ideas they will study in the chapter.

Chemistry includes:
• A Look Back at the AP Essential Knowledge, which reviews the most important chapter concepts.
• The NEW AP Focus Review Guide workbook, which helps students review and apply the essential AP content covered in each chapter.
• An AP Teacher's Manual that provides teaching strategies, suggested activities, and labs.
• Connect® an integrated learning system that contains SmartBook™, an adaptive eBook built on the LearnSmart™ engine. Connect® also offers AP Chemistry Chapter Banks that review chapter content using AP-style question. All questions are correlated to the AP Chemistry Curriculum Framework.
• A downloadable eBook.
Perfect Fit for the AP Chemistry Classroom

This edition of *Chemistry: The Molecular Nature of Matter and Change* contains unprecedented macroscopic-to-microscopic molecular illustrations, consistent step-by-step worked exercises in every chapter, and comprehensive end-of-chapter problems. The content covers a wide variety of interests, including engineering, medicine, materials, and environmental issues.

This program also features:

- An updated *AP Teacher Manual*. It provides a pacing guide as well as activities and questions aligned to the curriculum.
- Updated AP Test Banks that have been expanded to help students succeed on the AP Chemistry exam.
- McGraw-Hill’s *Connect*® Chemistry incorporates new, exciting, and interactive tools – including LearnSmart and a SmartBook. Each chapter also has a bank of questions written and aligned to the new curriculum.
- A downloadable eBook.
Environmental Science: A Global Concern, AP Edition
Fourteenth Edition © 2018
Cunningham

A Global View of Environmental Science
Emphasizing critical thinking, environmental responsibility, and global awareness, this new AP edition now includes additional features that emphasize its AP focus. Chapter openers pinpoint the AP topics and key concepts covered in the chapter as well as the location of Skills and Practice to prepare for the AP Exam. Additionally, the AP-style chapter assessments include a vocabulary review, multiple choice questions, and free-response questions. This edition also features Data Analysis Lab and Use the Math features to prepare students for the mathematical requirements of the AP exam.

Environmental Science also includes:

- An AP Teacher's Manual that correlates each chapter to the APES Curriculum Framework as well as providing a pacing guide and useful activities.
- McGraw-Hill Connect® - featuring an AP SmartBook® adaptive reading experience, LearnSmart® adaptive study tools, and AP Chapter Banks to help prepare students for the AP Exam.
- The Field and Laboratory Activities for Environmental Science lab manual that provides students with hands-on experiences that are relevant, easy to understand, applicable to the student's life, and presented in an interesting, informative format.
- A downloadable eBook.
A Concise and Conceptual View of Environmental Science

*Environmental Science: A Study of Interrelationships*, a full-color, introductory environmental science text is known for being concise and conceptual. The approach and reading level cover the basic concepts without overloading students with too much detail. The authors reinforce the text's central theme of interrelationships by providing a historical perspective as well as information on economic and political realities and the role of different social experiences. Then, the authors integrate them with the crucial science to describe the natural world and how we affect it. This book is also suitable for an Elective Environmental Science course.

*Environmental Science* also offers:

- The *Field and Laboratory Activities for Environmental Science*, a lab manual that provides students with hands-on experiences that are relevant, easy to understand, and applicable to their lives—all presented in an interesting, informative format.
- Connect® an integrated learning system that contains SmartBook™, an adaptive eBook built on the LearnSmart™ engine.
- A downloadable eBook.
Your Problem is Solved with McGraw-Hill Education as a Partner

Actions speak louder than words. We prove our commitment to you and your students with:

- Intensive technology training
- Program implementation training
- Ongoing support and troubleshooting

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