

## Program Components and Features

### GRADES 9–12

### STUDENT RESOURCES

#### Student Edition, Print

##### FEATURE HIGHLIGHTS:

- ▶ **Thing Explainer** illustrations from **Randall Munroe of xkcd.com fame**...for additional coverage of Disciplinary Core Ideas
- ▶ **Driving Questions**...to stimulate students' thinking about the big ideas of science
- ▶ **Engaging lesson openers**...to connect learning to discrepant events or phenomena
- ▶ **Science Notebooking prompts**...to encourage students to gather evidence that supports their claims, draw models and diagrams, and develop the reasoning behind the scientific explanations they construct
- ▶ **Vocabulary** highlighted within the sentence...so students focus on the contexts and concepts behind words
- ▶ **Collaboration prompts**...so students drive their own learning through discussion and teamwork with peers
- ▶ **Modeling activities**...to enable students to practice this critical scientific and engineering process
- ▶ **Engineering connections**...to help students engage in the design process to solve problems like engineers
- ▶ **Math and English language arts connections**...to strengthen students' skills in cross-curricular areas
- ▶ **Guided Research features**...so students practice conducting and applying research
- ▶ **Lesson Self-Check**...to provide useful checkpoints for understanding
- ▶ **Checkpoints**...to measure student understanding of lesson concepts, skills, and applications
- ▶ **Hands-on Activities and Labs**...so students can demonstrate scientific procedures and analysis
- ▶ **Data Analysis**...to engage students in this critical process for constructing scientific explanations
- ▶ **Make Your Own Study Guide prompts**...to put students in charge of their own learning and review
- ▶ **Crosscutting Concept icons**...to highlight connections to Cause and Effect; to Energy and Matter; to Scale, Proportion, and Quantity; and more
- ▶ **Unit Connections**...so students can see how their learning applies to engineering, social studies, computer science, the arts, and other areas of study
- ▶ **Unit Practice and Review**...for review and evaluation
- ▶ **Unit Projects**...so students can engage in project-based learning
- ▶ **Unit Performance Task**...enabling students to construct their own solution to a problem

## STUDENT RESOURCES

### Student Edition, Interactive Online Edition

#### FEATURE HIGHLIGHTS:

- ▶ **All the features of the Print Student Edition *plus*:**
- ▶ **Animations and Videos**...to enhance student understanding through engaging multimedia
- ▶ **Open-ended prompts**...to encourage students to type or draw their answers to open-ended questions
- ▶ **Technology-enhanced inputs** like dropdown select, multi-select, and drag and drop...to prepare students for high-stakes tests, allow them to receive immediate feedback on their responses, and offer teachers ongoing formative assessment feedback
- ▶ **Take It Further**...to empower students with personalized learning paths, so they can continue their studies in the areas that most interest them
- ▶ **Extension opportunities**...to stimulate thinking in students who need an additional challenge
- ▶ **Vocabulary** highlighted and clickable...to link students directly to the definition
- ▶ **Unit Project Worksheets**...to help students plan their thinking around project-based learning
- ▶ **Downloadable PDF Worksheets for Labs**...for added convenience

### Student Edition, eTextbook (ePub, download)

### Student Edition PDF (Downloadable)

### CliffsNotes® *On the Job* Videos

...to interest students in STEM careers and show them what an actual workday looks like in different fields!

### Math and ELA Online Handbooks

...to refresh students' knowledge of essential math and English language arts skills

### Science and Engineering Practices and Crosscutting Concepts Online Handbooks

...for students who need extra support in grasping the SEPs and CCCs

### You Solve It

...to engage students in open-ended simulation-based learning with multiple answer options

## TEACHER RESOURCES

### Teacher Edition, Print

#### FEATURE HIGHLIGHTS:

- ▶ **3D Learning Objectives**—custom stepping-stone objectives...for integrating the Three Dimensions of Learning
- ▶ **PEs, SEPs, CCCs, and DCIs** clearly labeled for each lesson...to help you navigate the new standards
- ▶ **Connections to Math and ELA** outlined in each lesson...to connect science content to other curricular areas
- ▶ **Building on Prior Knowledge**...to access students' existing knowledge about the subject matter
- ▶ **Differentiating Instruction features**...to individualize instruction for every student
- ▶ **EL Support**...to address the needs of English learners in your classroom
- ▶ **Content Background refreshers**...to provide context for what is being taught in class
- ▶ **5E Model**...to maximize teaching effectiveness via a familiar learning model
- ▶ **Evidence Notebook support**...to guide students as they journal about their thinking
- ▶ **Collaboration support**...to help inspire group interaction
- ▶ **Hands-On Activities and Labs support**...to efficiently conduct labs by previewing the time required, the objective, and any preparations

### Teacher Edition, Interactive Online Edition

#### FEATURE HIGHLIGHTS:

- ▶ **All the features of the Print Teacher Edition *plus*:**
- ▶ **K–12 Standards Trace Tool**...to clarify how NGSS\* spirals through each grade and where your instruction fits
- ▶ **Professional Learning Videos**...to ease your transition to NGSS with support from thought leaders and experts
- ▶ **Lab Resources and Materials List**...to help you seamlessly integrate labs

### Teacher Edition, eTextbook (ePub, download)

### Teacher Edition PDF (Downloadable Teacher Resource Tool)

### Google® Expeditions Teacher Guide

...providing tips and strategies for incorporating science-specific Google Expeditions into the curriculum

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### Assessment Guide

... for easy access to your print assessment resources

### Online Assessment with Item Banks

...for compiling your own quizzes and tests

### Performance-Based Assessments

...to prepare students for high-stakes tests on the Performance Expectations of NGSS

## ASSESSMENT RESOURCES

## PARENT RESOURCES

### Parent-Facing Videos

...offering background and explanations concerning NGSS\*

## ADDITIONAL RESOURCES

### Common Cartridge®

...supporting integration of content into compatible Learning Management Systems

### Ed: Your Friend in Learning

...a new online learning system that combines the best of technology, HMH® content, and instruction to personalize the teaching and learning experience for every teacher and student

### HMH Player® app

...for accessing program content offline and for maximum compatibility in 1:1 or in Bring Your Own Device learning environments

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