

# HMH Science Dimensions®

## 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

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## 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
- ▶ **Highlighted Vocabulary**—to link students directly to the definitions
- ▶ **Unit Project Worksheets**—to help students plan their thinking around project-based learning
- ▶ **Downloadable PDF Worksheets for Labs**—for added convenience

### 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

#### Online Multilingual Glossary

definitions of key vocabulary terms in several languages.

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## 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 PDF (Downloadable Teacher Resource Tool)

#### NGSS Trace Tool

shows how standards connect and spiral from one grade band to another.

## ASSESSMENT RESOURCES

### 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

### Parent-Facing Videos

offering background and explanations concerning NGSS\*

### Parent Letters

introduces this unit's key concepts and Performance Expectations, and includes an activity that students and families can do together at home.

### Teacher's Corner

a hub of professional learning and teaching support resources

### *Ed: Your Friend in Learning*<sup>®</sup>

online learning system that combines the best of technology, HMH<sup>®</sup> content, and instruction to personalize the teaching and learning experience for every teacher and student

### *HMH Go*<sup>™</sup> app

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

### Common Cartridge<sup>®</sup>

supporting integration of content into compatible Learning Management Systems

To learn more and get an online preview, visit  
**[hnhco.com/sciencedimensions](http://hnhco.com/sciencedimensions)**

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