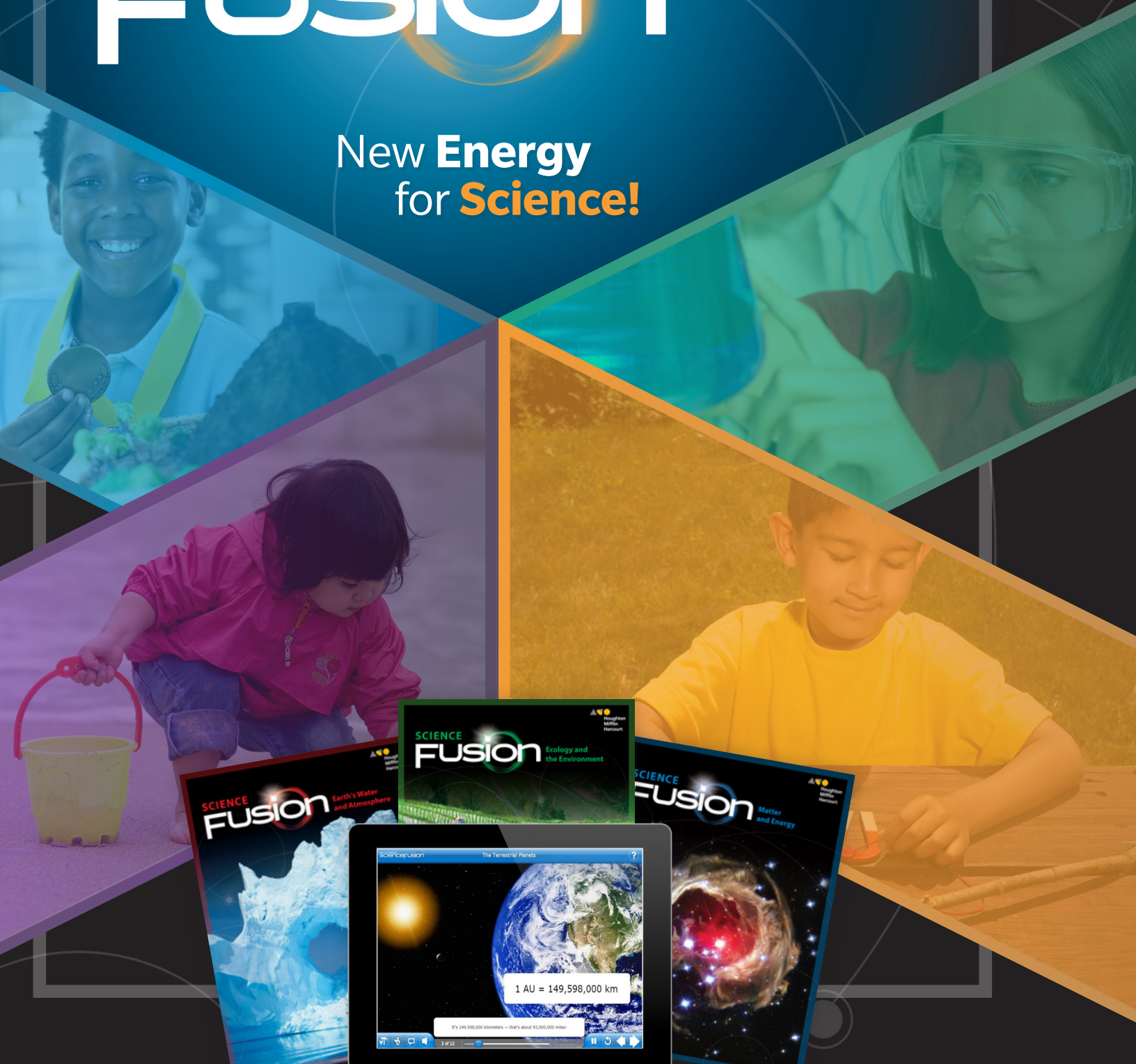


# SCIENCE Fusion

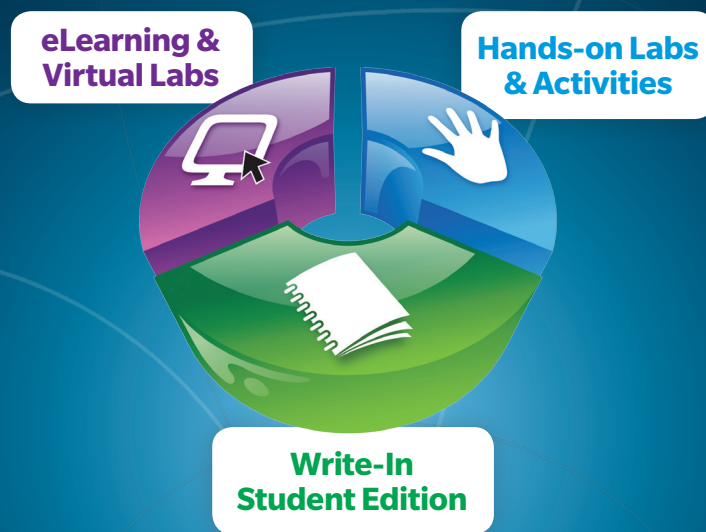
New **Energy**  
for **Science!**



**Program Overview** Grades 6–8

# Power up with *Science Fusion!*

This best-in-class program fuses...



...to generate new science energy  
for today's science learner

## Preview Now!

Experience our  
interactive and  
engaging online  
resources today!

1. Go to [thinkcentral.com](http://thinkcentral.com) and click on **Science & Health**
2. Click **Evaluators Click Here** then **Register** (for New Users)
3. Enter the access word: **68fusion17**
4. Enter the required information, click the check box for **Terms of Use** and **Privacy Policy**, then click **Next**
5. Select a role to preview (teacher, student, or administrator), then click **Login**
6. Select a **grade** and a **resource shortcut** on the dashboard or click the **Resources** link to see other options



# Energize Your Classroom!

**ScienceFusion's** innovative and award-winning print and digital curriculum encourages inquiry and scientific thinking in all students. This state-of-the-art science program incorporates multimodal learning, support for STEM and 21st-century skills acquisition, and a vast set of unique and engaging online resources. **ScienceFusion** can be accessed in the classroom or at home, on a laptop or tablet, or through the print write-in textbook. The digital and print pathways develop important critical-thinking skills that prepare students for success in future science courses and in the workplace.

## Two unique learning pathways, one complete classroom solution

More than a science textbook with companion technology, **ScienceFusion** is like having two science programs in one. That's because we designed the program to give you two unique learning pathways—one print and one digital—combining to create one complete classroom solution.

Use the digital path independently to cover units, lessons, or parts of lessons. Or mix the print and digital paths together. That's part of **ScienceFusion's** built-in flexibility.



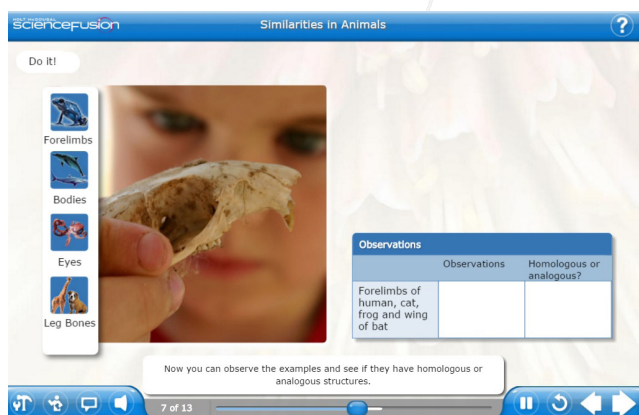
**BEST  
IN  
CLASS**

## Discover What Makes ScienceFusion Best in Class!

**1. Scientific Literacy:** With a strong focus on developing literacy skills, the **ScienceFusion Write-In Student Edition Worktext** encourages **active reading** and interaction with content. Add the **ScienceSaurus® Student Handbook's** dynamic visuals and clear explanations of key scientific concepts to further build students' literacy and vocabulary abilities.



Module H Interactive Write-In Student Worktext



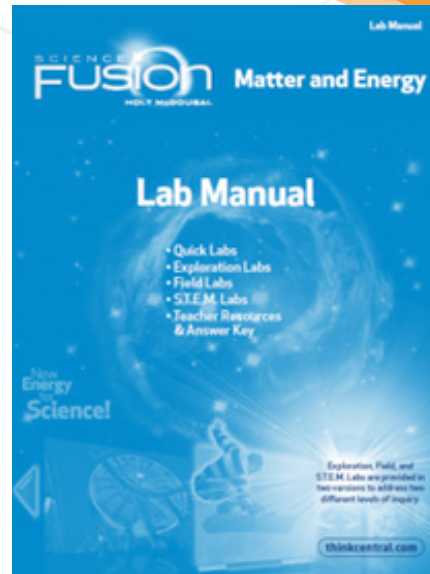
Module B Virtual Lab

**2. Engaging Technology:** Innovative eLearning allows students to conduct **Virtual Labs**, complete **Video-Based Projects**, and reinforce concepts with unique **Digital Lessons**. With access to **Google Expeditions**, students can experience and explore **virtual worlds** to understand how science is all around them.



# New Energy for Science!

**3. Hands-on Exploration:** Science is all about **doing**. With the **Lab Manual** and **Equipment Kits**, students learn the excitement of investigating, asking questions, and drawing conclusions. Engaging investigations for every lesson allow students to test their ideas and share what they learn.



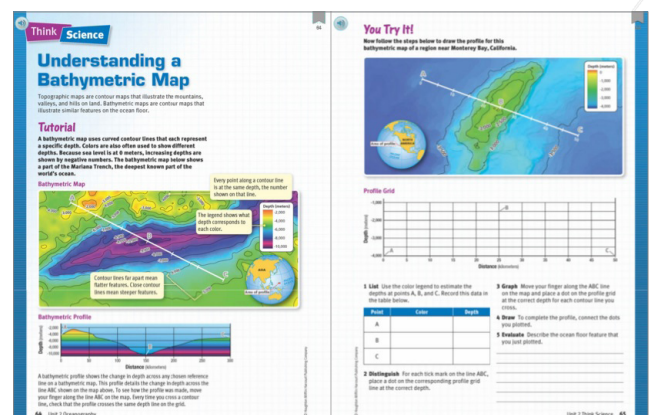
Module H Lab Manual



21st-Century Skills Technology and Coding Curriculum

**4. 21st-Century Skills:** The emphasis on **STEM**, found in the **STEM lessons and labs**, **People in Science**, and **Careers in Science** features, and in a **NEW “Technology and Coding”** curriculum, help to prepare students for college and science-based careers.

**5. 360° of Inquiry:** **ScienceFusion** was developed to create an inquiry-based approach in every component of the program. This is 360° of inquiry—a fusion of all program components to develop science skills, concepts, and vocabulary through **inquiry** and **application**. The **Think Science** feature included in each module encourages students to further develop critical-thinking skills.



Module F  
Student Edition, *Think Science*

## Multimodal Learning for Today's Students!

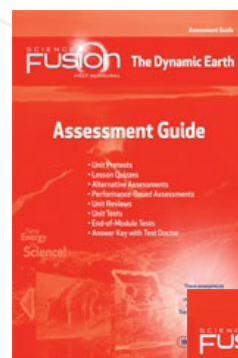
In order to maximize flexibility, **ScienceFusion** 6–8 is organized by topics in the form of discrete modules, both in print and online. These 11 modules consist of all the life, Earth, and physical science topics needed for any 6–8 curriculum.



**Write-In Student Edition  
Interactive Worktext**  
Module A Student Edition



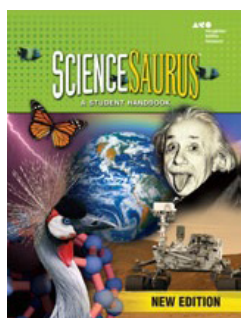
**Teacher Edition**  
Module I Teacher Edition



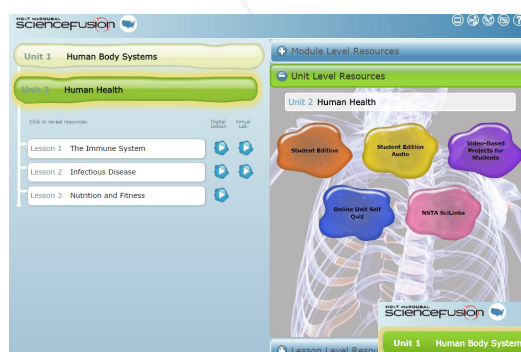
**Teacher Assessment  
Guide**  
Module E



**Teacher  
Lab Manual**  
Module F



**ScienceSaurus  
Student Handbook**  
Grades 6–8

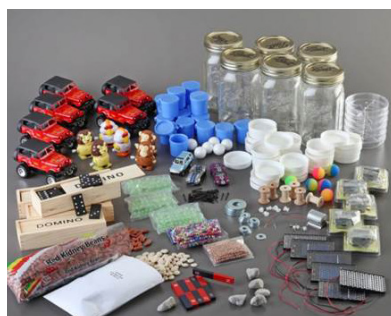


**Teacher Online  
Management Center**

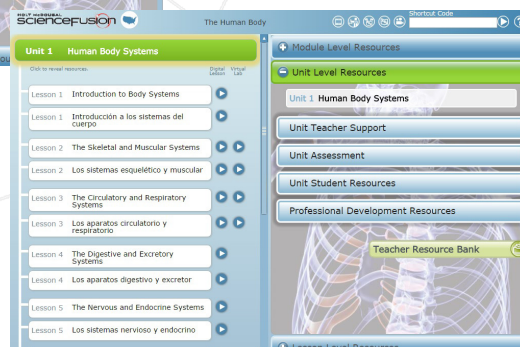
Module C  
Teacher Online Access



**Student Interactive  
Digital Curriculum**  
Module C  
Student Online Access



**Equipment  
and Safety Kits**  
Non-Consumable  
Equipment Kit



**Legend:** Print Digital

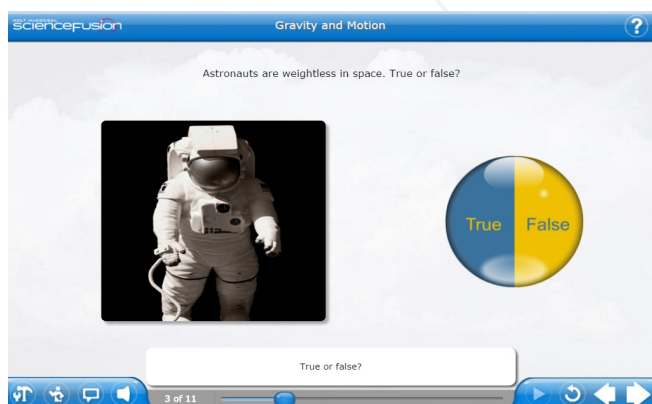


## Student Interactive Digital Curriculum

**ScienceFusion's Interactive Digital Curriculum** is an award-winning, **research-proven** way to teach science in a familiar, engaging, online environment. Through continuous interaction via simulations, animations, videos, virtual labs, video-based projects, and assessments, students are active participants in the learning process. Teachers can assign the lessons and resources to students, or use them on an interactive whiteboard for whole-class or small-group instruction.

All resources available in both **English** and **Spanish**!

The **Interactive Online Student Edition** provides students with anytime access to the Student Edition. The **ScienceFusion** eBooks are now based on the HTML standard so they can be accessed from any compatible platform or device. In addition, powerful personalization functions like note-taking, highlighting, bookmarking, and searching are supported and saved. There is a direct **audio read** in both English and Spanish for those students who need reading support.



### Module I Digital Lesson

**Digital Lessons** provide an alternative online experience for every write-in textbook lesson. These **highly engaging** and **colorful** lessons teach the same content, vocabulary, and inquiry skills, but in a completely different way. **ScienceFusion** now supports the ability for students to bookmark their location in a lesson and return to that same point at a later time. In addition, students' work is saved between sessions. The **Digital Lesson Tracker** shows how much time students spent on each screen, their number of attempts, and the answers they selected, so teachers can identify areas where students need to improve.



### Module D Spanish and English Interactive Online Student Edition

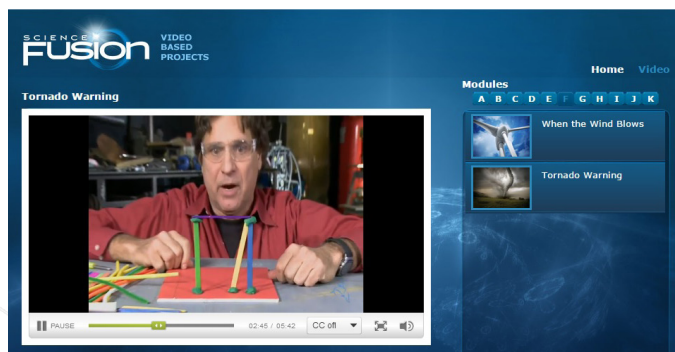


# Student Interactive Digital Curriculum



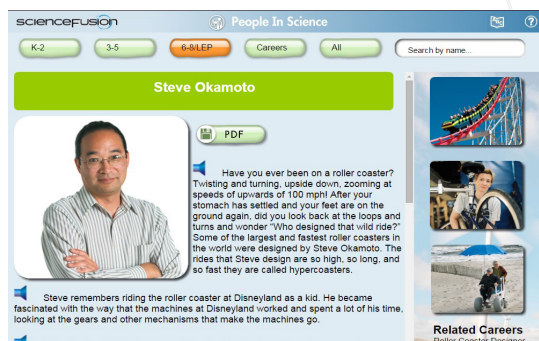
## Module K Virtual Lab

**Virtual Labs** review important concepts developed in the lessons and provide students with the opportunity to **apply** what they are learning in the digital lessons. Using **simulated equipment**, students are immersed in a scenario in which they collect data and draw conclusions following a rigorous scientific investigation process. Student progress can be tracked using the **Virtual Lab Data Sheets**, which can be saved and emailed or printed for assignment purposes.



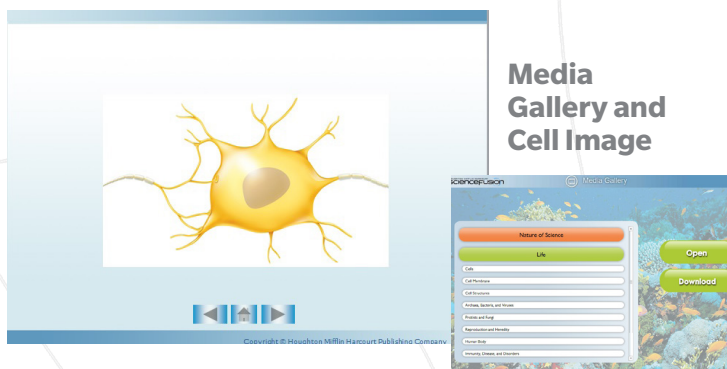
## Module F Video-Based Project

**Video-Based Projects** are **captivating inquiry-based projects** introduced by one of our authors, Dr. Michael Heithaus or Michael DiSpezio. With the help of a video, teacher support pages, and student activity worksheets, students solve problems or tackle engineering challenges. There are one to two projects for each module, focusing on STEM, ecology, and biotechnology topics.

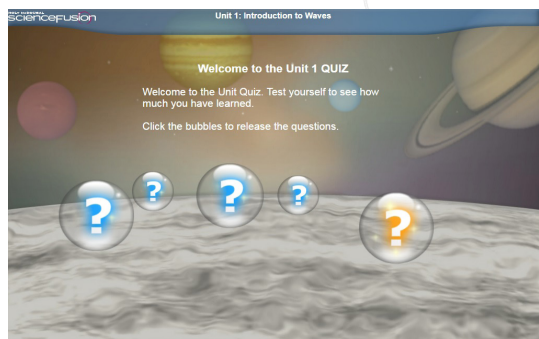


## People in Science Gallery

The **People in Science Gallery** contains a collection of multimedia biographies of scientists from past and present with descriptions of **scientific careers** found at point of use in each unit.



A large collection of **key images** has been compiled in the **Media Gallery**. These files are in PowerPoint® format and can be used by the teacher or student to create their own presentations. These can be displayed with an interactive whiteboard as well.



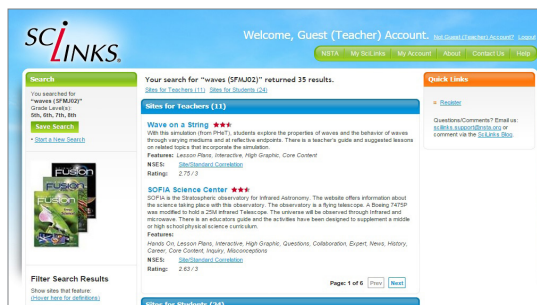
## Module J Online Unit Self-Check

The **Online Unit Self-Checks** are a **fun, interactive assessment** that will give students a view of their strengths and weaknesses in a given unit. The design of these online quizzes has been improved to maximize learning effectiveness by giving students more opportunities to arrive at the correct answer.





# New Energy for Science!



## NSTA SciLINKS



### Module B HISTORY Channel video

As part of an exclusive partnership with the **HISTORY® Channel**, videos have been included in select modules. These short videos relate to the unit content and include **cross-curricular connections** to social studies.

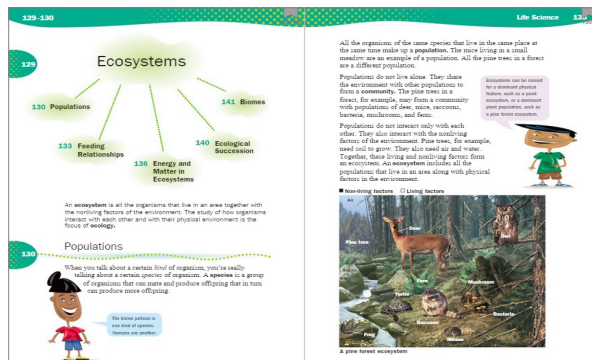


**NEW  
for  
© 2017!**

Through its alliance with Google®, HMH is developing content for **Google Expeditions**. Using a simple Google Cardboard™ device and a smartphone, students are swept away into **immersive virtual worlds** where learning and engagement are maximized. These virtual field trips are 3D, 360-degree experiences in fascinating locations, directly tied to science content! **A Teacher Guide** provides ideas on ways to incorporate the Expeditions into the curriculum.

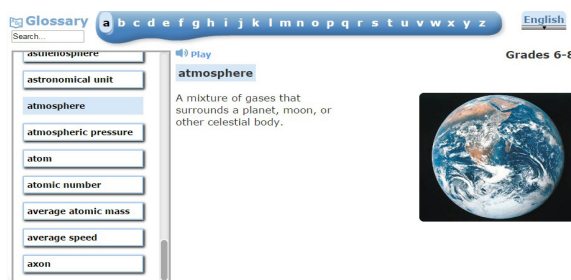
## National Science Teachers Association (NSTA) SciLINKS®

are found at point of use in each unit to extend your students' understanding of unit concepts and skills. These resources are vetted by scientific experts at NSTA, so you can be assured they are **exemplary resources** and "safe surfing" for students.



## ScienceSaurus

Online access to **ScienceSaurus** is included with **ScienceFusion** © 2017. This convenient handbook covers life, Earth, physical, and environmental science, as well as engineering and technology. Clear explanations with dynamic visuals can be used for **presentation**, **review**, or **reinforcement** of science concepts. In addition, powerful personalization functions like highlighting, bookmarking, and searching are supported and saved.



## Interactive Glossary

### These components are also available online, as part of the Student Interactive Digital Curriculum:

- **Multi-Language Glossary** A glossary of key terms and definitions in English, Spanish, Chinese, Vietnamese, Khmer, Laotian, Arabic, Haitian Creole, Russian, and Portuguese
- **Interactive Glossary** Provides program vocabulary and definitions with either visuals or video and audio
- **Lab Datasheets** All lesson labs with worksheets available to students in PDF format
- **Student Edition Audio** Full audio of the textbook accessible to students via their mobile devices
- **Student Handbook** Student Edition Resources section in the back of each module; includes Scientific Reference Materials, Reading and Study Skills, Science Skills, Math Refresher, and Glossary
- **Take It Home Worksheets** Student worksheets for the Engage and Explore activity suggestion found before each lesson in the Teacher Edition

# Everything You Need—In One Place!

## Teacher Online Management Center

The **Teacher Online Management Center** is designed to make it easier for you to access all of the program resources—for teacher and student—to assist in planning, teaching, assessing, and tracking student progress. Additionally, most student resources are assignable. **ScienceFusion** offers teachers **24/7 access** to effective, research-proven, targeted resources, which will never get lost or misplaced—giving you the flexibility to choose the right resources to meet your classroom needs.

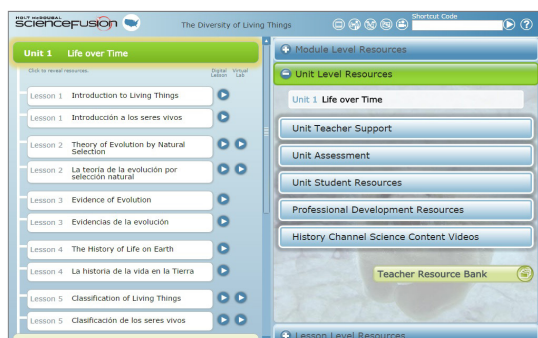
The **Teacher Online Management Center** makes it easy to:

- **Preview** program resources
- Download editable resources to **customize** them for your classroom
- **Assign and schedule** resources online, so they will appear in your students' inboxes
- Automatically **score** all quizzes and tests taken online
- Automatically provide individual **remediation** plans based on test results
- Easily monitor and **track student progress**, and provide remediation for students who need it





# New Energy for Science!



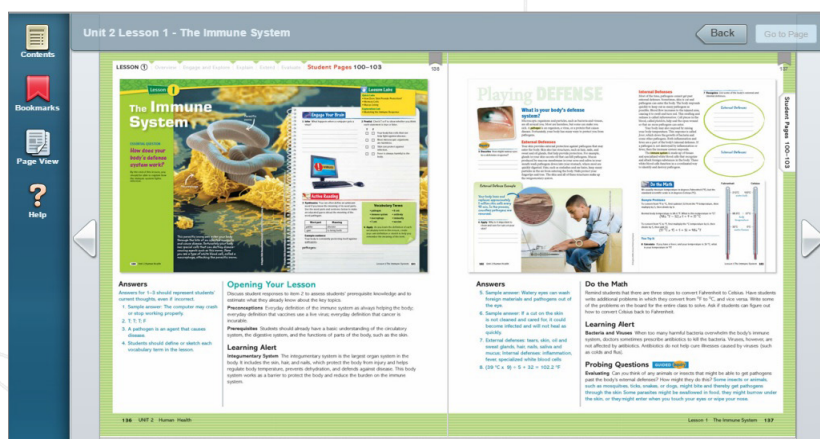
## Module B Teacher Online Management Center

From your custom-tailored **Dashboard**, see all your **ScienceFusion** content, navigate to any grade, set up your daily schedule in **mySmartPlanner**, and view **Assignments** and **Reports**.

**mySmartPlanner**

**Assignments**

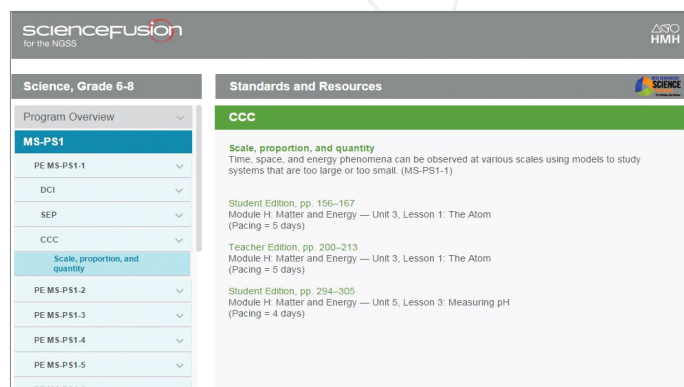
**Reports**



## Module C Interactive Online Teacher Edition

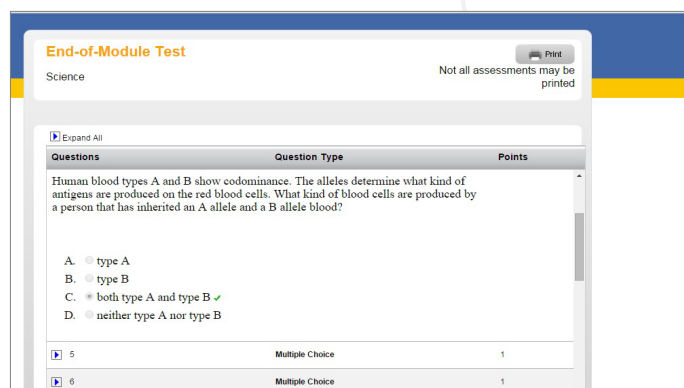
The **Interactive Online Teacher** Edition provides teachers with anytime access to their print TE. Teachers can easily navigate using the Table of Contents and Bookmarks. In addition, powerful personalization functions like note-taking, highlighting, bookmarking, and searching are supported and saved.

# Teacher Online Management Center



NGSS Correlation Tool

The © 2017 edition of **ScienceFusion** includes a correlation tool for the **Next Generation Science Standards (NGSS)\***. The online **NGSS Correlation Tool** provides links to actual curriculum material that supports the **Three Dimensions of Learning** that make up the NGSS. Correlations are also available in the print Teacher Edition. Depending on the package purchased, online access to content from additional grades may be included.



Module A End-of-Module Test

**End-of-Module Tests, Unit Pre-Tests, Unit Reviews, Unit Tests** (Tests A and B), and **Lesson Quizzes** are available in both English and Spanish, along with the **Answer Keys**. Assessments are assignable and editable with individual and whole-class reporting and **automated grading** and **remediation** tied to test questions. Many of these same assessments are available as PDF files or in the printed **Assessment Guide**.



Module I ExamView

**ExamView® Test Banks** contain extra editable assessment items. You can **customize** an assessment by adding or deleting items, revising difficulty levels, changing formats, revising sequence, and editing items. Students can take customized quizzes and tests directly online.



HMH's partnership with NSTA provides custom **Professional Development Resources** for every unit. Materials are a mix of online interactive content modules, journal and book chapter materials, pre-recorded podcasts, and more. Teachers have 24/7 access to **quality professional development** from the science experts.

Module B Professional Development Resources

\*Next Generation Science Standards and logo are registered trademarks of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards was involved in the production of, and does not endorse, this product.



sciencefusion

Weathering

Screen	Number of Visits	Time on Screen	Number of Attempts
1. Introduction	0	00 : 00	NA
2. Green liberty	0	00 : 00	NA
3. Physical versus chemical	0	00 : 00	NA
4. Physical weathering	0	00 : 00	NA
5. Chemical weathering	0	00 : 00	NA
6.	0	00 : 00	NA
7. Match the examples!	0	00 : 00	NA
8. Sinkhole	0	00 : 00	NA
9. Summary	0	00 : 00	NA

Screen 7 : Match the examples!

Match each agent of **weathering** with its correct image.

plant actions   acid precipitation   animal actions

## Module E Digital Lesson Tracker

The Teacher View of Digital Lessons includes a **Digital Lesson Tracker with Answers** that shows answers to the digital lesson interactivities. **Digital Lesson Formative Assessment** provides additional teacher questions and answers that can be used for **individual** or **whole-class instruction** using the digital lesson.

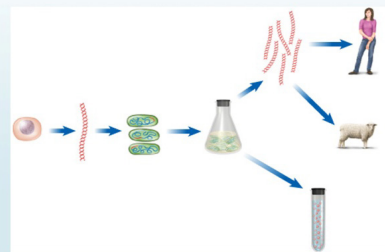
**These components are also available online, as part of the Teacher Online Management Center:**

- **Google Expeditions Teacher Guide** offering ideas on ways to incorporate the virtual field trips into your lessons and guide the experience
- **Lab Manual PDF files** including Virtual Lab Datasheets with Answers and blank Virtual Lab Data Sheets
- **Multi-Language Glossary** providing key terms and definitions in English, Spanish, Chinese, Vietnamese, Khmer, Laotian, Arabic, Haitian Creole, Russian, and Portuguese
- **Correlations to Common Core** bridging each module to the CCSS ELA and Mathematics standards
- **School-Home Connection Letters** offering families information on the current unit as well as activities that can be done at home
- **Take It Home Worksheets** presenting activities that can be done at home to extend classroom learning
- **Assessment Guide PDF files** for End-of-Module Tests with Answer Keys, Unit Pre-Tests, Unit Reviews, Unit Tests A and B with Answer Keys, Lesson Quizzes with Answer Keys; also available in Spanish
- **Lesson Differentiated Instruction** offering Teacher Edition strategies for differentiating instruction
- **ScienceSaurus** in the Interactive Online Edition
- **Teacher Resource Bank** including lessons for substitute teachers, science fair support, rubrics, graphic organizers, cooperative learning activities, and more

## 3 Lesson 5 Engineering and Life Science

### What technology is used to change organisms or make new organisms?

- How do scientists modify DNA through genetic engineering?



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## Module K PowerNotes Presentation

**PowerNotes® Presentations** are downloadable, editable PowerPoint® files with **lesson summaries**, **key vocabulary**, and **engaging visuals** for whole-class instruction.



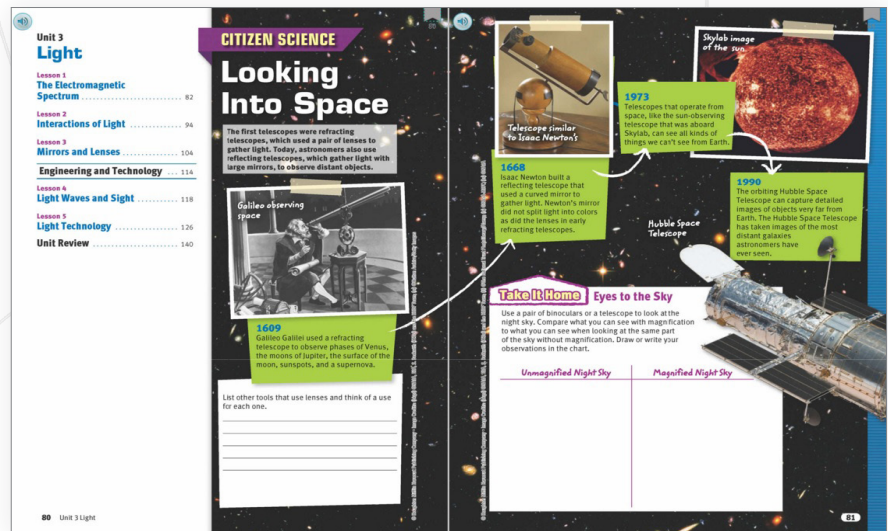
## Multi-Language Glossary

## Inspire Scientific Literacy!

### Student Print Resources

**ScienceFusion's** print resources engage students in exciting, inquiry-based learning at every point of instruction. The effective, research-based program is **easy to implement**, **fun to teach**, and **enjoyable** for students to use. The program's innovative approach to print resources encourages students to become active participants in their own learning and encourages development of scientific and reading literacy. For teacher ease of use, all of the program's student print resources are located online at point of use.

The **Interactive Student Edition Worktext** has a **magazine-style layout** that matches the way today's students learn best—by actively engaging with the content they're reading. Students can write their ideas, answer questions, make notes, complete drawings, and record their observations right on the page.



Module J Student Edition

Resources  
available in both  
**English** and  
**Spanish!**



# New Energy for Science!

**How does blood move through the body?**

Blood is pumped from the right side of the heart to the lungs. From the lungs it returns to the left side of the heart. The blood is then pumped from the left side of the heart to the body. It flows to the tiny capillaries around the body before returning to the right side of the heart. Blood in the arteries that come out of the heart is under great pressure because of the force from the pumping action of the heart. Blood in veins is under much less pressure than arterial blood because veins have larger internal diameters than arteries do. Veins carry larger volumes of blood more slowly.

**Blood Moves in Circuits**

Blood moves in two loops or circuits around the body. The beating heart moves blood to the lungs and also around the body. The flow of blood between the heart and the lungs is called the **pulmonary circulation**. As blood passes through the lungs, carbon dioxide leaves the blood and oxygen is picked up. The oxygen-rich blood then flows back to the heart, where it is pumped around the rest of the body. The circulation of blood between the heart and the rest of the body is called **systemic circulation**. Oxygen-poor blood returns to the heart from body cells in the systemic circulation.

**Active Reading 14 Compare** What is the difference between the pulmonary and systemic circulations?

**Write It!**

17 Apply Find a box around the part of the diagram that shows the pulmonary circulation. Where in the diagram would you find oxygen-poor blood?

**How does circulation help maintain body temperature?**

The circulation of blood also helps homeostasis. When the brain senses that body temperature is rising, it signals blood vessels in the skin to widen. As the vessels get wider, heat from the blood is transferred to the air around the skin. This transfer helps lower body temperature. When the brain senses that body temperature is normal, it signals the blood vessels to return to normal. When the brain senses the body temperature is getting too low, it signals the blood vessels near the skin to get narrower. This allows the blood to stay close to internal organs to keep them warm.

Lesson 3 The Circulatory and Respiratory Systems 37

The write-in **Student Editions** promote a student-centered approach for:

- Learning and applying **critical-thinking** and **reading skills**
- Building inquiry, STEM, and 21st-century skills
- Developing attentive, energetic readers who reach a deep level of **comprehension**

Each unit is designed to:

- Focus on a **Big Idea** and supporting **Essential Questions**
- Incorporate **Active Reading** prompts that teach students how to **analyze** and **interact** with content

**UNIT 1**

## Earth's Water

**Big Idea**

Water moves through Earth's atmosphere, oceans, and land in a cycle and is essential for life on Earth.

**What do you think?**

Fresh water is found in ponds, lakes, streams, rivers, and underground in aquifers. Where does the water in your school come from?

Humans rely on water to stay healthy.

## Module C Student Edition

**S.T.E.M. Engineering & Technology**

### Analyzing Technology

Skills	Objectives
Identify risks	Analyze the life cycle of an aluminum can.
Identify benefits	Analyze the life cycle of a glass bottle.
Evaluate cost of technology	Evaluate the cost of recycling versus disposal of technology.
Evaluate environmental impact	Analyze the environmental impact of technology.
Propose improvements	
Propose risk reduction	
Compare technology	
Communicate results	

### Analyzing the Life Cycles of Aluminum and Glass

A life cycle analysis is a way to evaluate the real cost of a product. The analysis considers how much money an item costs to make. It also examines how making the product affects the economy and the environment through the life of the product. Engineers, scientists, and technologists use this information to improve processes and to compare products.

### Costs of Production

Have you ever wondered where an aluminum soda can comes from? Have you wondered where the can goes when you are done with it? If so, you have started a life cycle analysis by asking the right questions. Aluminum is a metal found in a type of rock called bauxite. To get aluminum, first bauxite must be mined. The mined ore is then shipped to a processing plant. There, the bauxite is melted to get aluminum in a process called **smelting**. After smelting, the aluminum is processed. It may be shaped into bicycle parts or rolled into sheets to make cans. Every step in the production involves both financial costs and environmental costs that must be considered in a life cycle analysis.

Many bicycles are made of aluminum because it is lightweight and strong.

166 Unit 3 Minerals and Rocks

## Module E Student Edition, STEM lesson

An important component of many **21st-century careers** is the meaningful understanding of the foundations of technology, engineering, and computer coding. A **NEW** spiraled curriculum on **"Technology and Coding"** has been added to address this need.

Every module features one or more **STEM lessons** that focus on a scaffolded approach to building **engineering and design skills** and practice of those skills in subsequent units.

## Module F Student Edition, Big Idea

**NEW for © 2017!**

### Up to <Code>

**How is computer software created?**

Imagine that you are using a computer at the library to learn more about the history of electronic music. You use the library's database application to start searching for internet resources. You also do a search to look for audio recordings. Finally, you open a word processor to take notes on the computer. Perhaps without realizing it, you've used many different pieces of software. Have you ever wondered how computer software is created?

**Computer software is designed to address a need**

Computer software can help us to learn more about our world. It can be useful to business. Or, it can simply entertain us. Whatever its purpose, computer software should **fill** some human want or need. The first step in creating software is planning how it will work.

**Computer software source code is written in a programming language**

The instructions that tell a computer how to run video games, word processors, and other kinds of software are not written in a human language. They are written in a special programming language, or code. JavaScript, C++, and Python are examples of programming languages. Programming languages like human languages—must follow certain rules in order to be understood by the computer. A series of instructions written in a programming language is called **source code**.

**Source code is revised**

Sometimes, programmers make mistakes in their code. Many programming environments have a feature that alerts the programmer to certain errors, such as spelling mistakes in commands, missing portions of code, or logical errors in the sequence of instructions. However, many mistakes go undetected, too. Some errors may cause the program to function incorrectly or not at all. When this happens, the programmer must identify the errors, correct it, and test the software again.

**Computer software is user tested, and revised**

Once the software is created, it must be tested thoroughly to make sure it does not fail or behave in unexpected ways. It must also be tested to ensure that it meets users' needs. The creators of a piece of software might observe how people use it. Or they might ask users to provide feedback on certain features, and test the software again.

**3 Identify** This source code contains an error. Infer where the error is located. What does this code "tell" the computer to do? Write your answers below.

```

11
12 # Scores are not tied, so check
13 # which player wins the round
14 if player1.score > player2.score:
15     print("Player 1 wins!")
16 else:
17     print("Player 2 wins!")
18
19
20

```

1 Syntax error, line 19

Identifying what a computer program addresses is one of the first development steps.

Test running a program is important for finding and fixing errors in the code.

Technology and Coding 185

## Student Edition, 21st-Century Skills Technology and Coding

# New Energy for Science!

Each module includes **People in Science** and **Think Science** features. **Think Science** focuses on developing **science skills** while the **People in Science** feature exposes students to the influence of science, engineering, and technology on society and inspires them to consider **careers** in science.

Found in each unit, **Do the Math!** connects **math and science** with sample problems, with a chance for students to try their own calculations. **Visualize It!** makes **abstract concepts** more concrete.

Additional features in the print Student Edition help students understand **how science relates to the world** around them. **Think Outside the Book** extends learning, asking students how they can apply unit concepts to their own lives. **Why It Matters** makes content relevant and offers additional opportunities for **extension**.

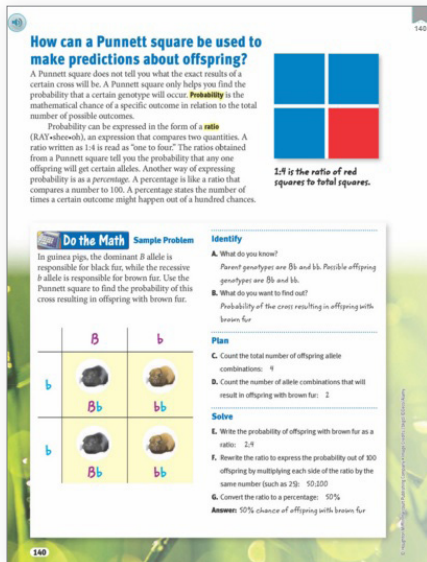
**ScienceSaurus** hardcover or softcover print handbooks are a delightful way to present, review, or reinforce science content. Essential scientific concepts and vocabulary are organized in an **encyclopedia format**. Clear explanations with dynamic visuals help students master key science ideas. Online access to **ScienceSaurus** is included with **ScienceFusion** © 2017 and print copies are included with certain packages.



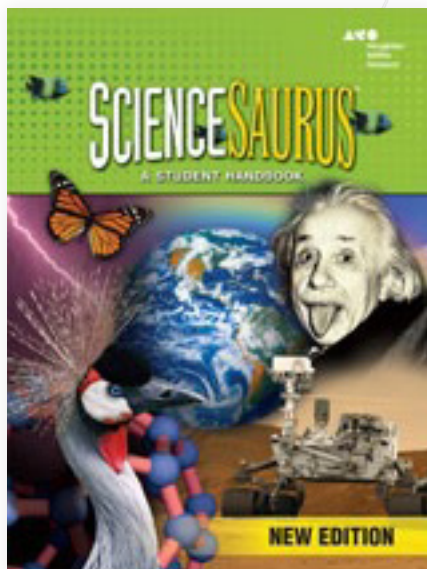
Module B Student Edition, Think Science



Module D Student Edition, Why It Matters



Module A Student Edition, Do the Math



ScienceSaurus Student Handbook



# Designed for Ease of Use!

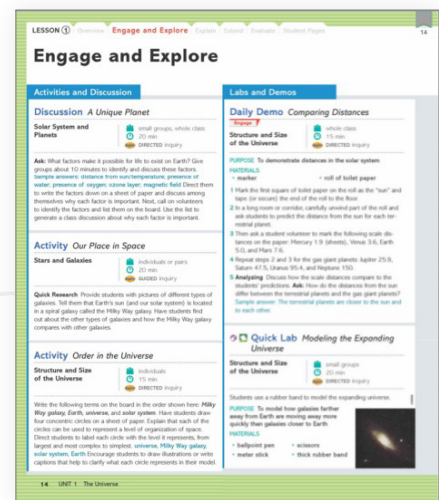
## Teacher Print Resources

### Teacher Edition

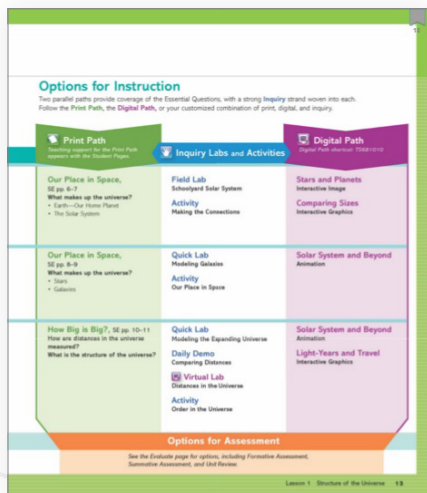
**ScienceFusion's** Teacher Editions for each module are designed with **middle school teachers** in mind. To match all teaching styles, the comprehensive, hardcover TE gives you the flexibility to pick and choose the resources you need. For ease of use, the targeted resources are located right at **point of use** in each unit and lesson.

**The Teacher Edition includes all of the following features to enhance your instruction:**

- Teacher support for each lesson that follows the **5E model**: Engage, Explore, Explain, Extend, and Evaluate.
  - **Engage** and **Explore** include: Activities, Discussions, Labs, Demos
  - **Explain** includes: Print and Digital Options, Differentiated Instruction, Lesson Vocabulary
  - **Extend** includes: Reinforce and Review, Going Further
  - **Evaluate** includes: Formative and Summative Assessment, Reteach



**Module G Teacher Edition, Engage and Explore**

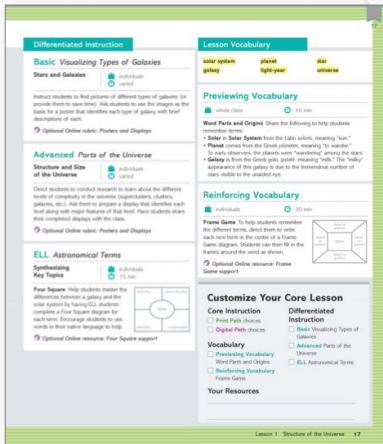


**Module G Teacher Edition, Options for Instruction**

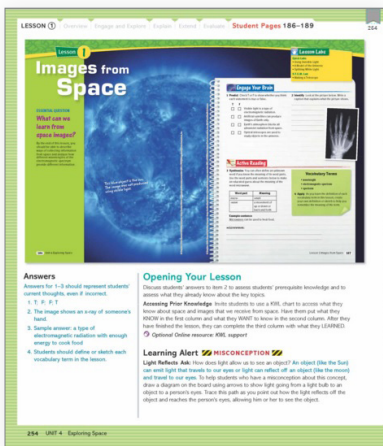
- **Options for Instruction** pages that show print, labs, and digital options for each lesson to help teachers **plan effectively**
- **Advance Planning** feature outlining activities and labs for each lesson
- Lesson-opening information highlighting required **Prerequisite Knowledge** along with **Accessing Prior Knowledge** strategies



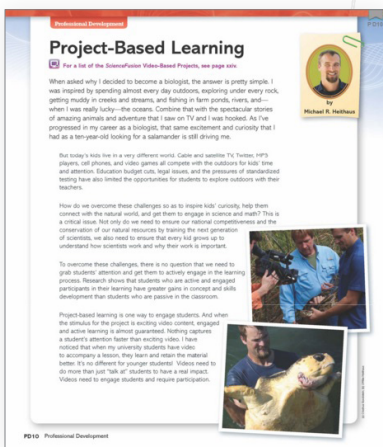
# Teacher Print Resources



## Module G Teacher Edition, Differentiated Instruction



## Module G Teacher Edition, Lesson Opener



## Module G Teacher Edition, Professional Development

- **Differentiated Instruction** page to provide resources for **meeting the needs of all students**

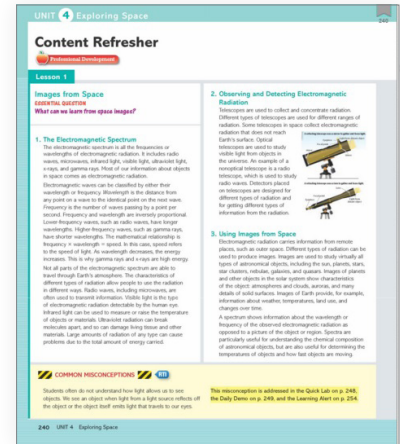
- **Response to Intervention** page with ways to support **struggling students**

- **Lesson Level Support** features include:

- Probing Questions to build inquiry skills and discussion features to extend learning
- Interpreting Visuals strategies
- Skill-building features like Building Reading Skills, Building Math Skills, and Building Graphing Skills
- Discussion features to extend learning
- Ongoing Formative Assessment strategies to check student comprehension

### The Teacher Edition also includes:

- Program Scope and Sequence and Pacing Guide
- Professional Development articles and references to online NSTA Professional Development for every unit
- Correlations to the Next Generation Science Standards\*, Common Core English Language Arts and Math standards, and **ScienceSaurus**



## Module G Teacher Edition, Content Refresher

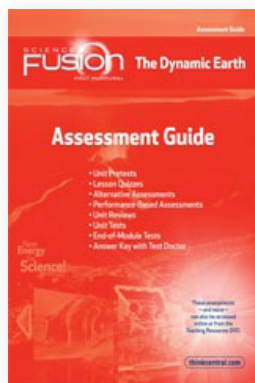
- **Content Refresher** pages provide **professional development** for teachers needing support in teaching concepts. These include **Common Misconceptions** to help identify regular stumbling blocks for students.



## Module G Teacher Edition, Citizen Science

- The **Citizen Science** feature provides support for **unit projects** while **Take It Home** supports this valuable school-home feature





## Module E Assessment Guide

### Assessment Guide

The **ScienceFusion** formative and summative assessment options give you **maximum flexibility** in assessing what your students know and what they can do. The Assessment Guide includes a comprehensive overview of your assessment options and includes:

- Unit PreTests
- Lesson Quizzes
- Alternative Assessments
- Performance-Based Assessments
- Unit Reviews
- Unit Tests
- End-of-Module Tests
- Answer Key and explanations of answers



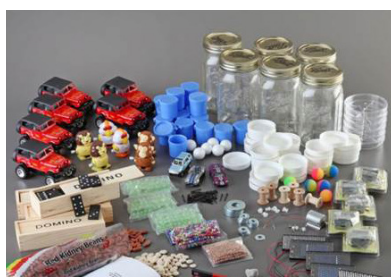
## Module F Lab Manual

### Lab Manual

The **ScienceFusion** lab program is designed to include activities that address a variety of student levels and inquiry levels—**directed, guided, and independent**. Each lesson is supported by two to three short activities and each unit includes one to four additional labs that require one or more class periods to complete. Each student activity includes datasheets, Teacher Resources with safety notes, tips, modifications, and an answer key. There are **editable** versions of all labs online as well as suggestions for differentiating labs, such as turning a Directed Lab into an Independent Inquiry Lab.

#### Program Labs include:

- **Quick Labs** Short activities at point of use to help concept development
- **Exploration Labs** Traditional labs designed to be used with standard equipment and materials
- **Field Labs** Designed to be partly or completely performed outside the classroom
- **STEM Labs** Activities that focus on science, technology, engineering, and math skills



### Non-Consumable Material Kits

These kits provide the non-consumable materials to complete all the labs in the Lab Manual for each module. The kits include enough materials for six groups of students.



### Consumable Material Kits

These kits provide the consumable materials to complete all the labs in the Lab Manual for each module. The kits include enough materials for six groups of students.

**It is recommended to purchase both the Non-Consumable Equipment Kit and the Consumable Equipment Kit to get started.**




### Common Material and Safety Kit

These two kits supply either common science lab equipment needed for many of the labs or the safety equipment necessary for any lab program.

# Two parallel and unique curriculums in one comprehensive program!

Traditional science programs repeat the same content across multiple formats, but with **ScienceFusion** you get **two full curriculums**—digital and print lessons—each with unique content, providing multiple exposures to science concepts and skills.

The **interactive, multimodal learning model** truly sets **ScienceFusion** apart—it's easier to teach and reinforce concepts, to promote deeper understanding, and to reach all learners in their unique learning styles.

		Print **	Digital
Student	Write-In Student Edition Interactive Worktext <ul style="list-style-type: none"> <li>• Visual Literacy</li> <li>• Big Ideas &amp; Essential Questions</li> <li>• Graphic Organizers</li> <li>• Magazine Format</li> <li>• STEM Lessons</li> <li>• Scaffolding</li> <li>• Labs</li> </ul>	Y	Y
	Student Interactive Digital Curriculum <ul style="list-style-type: none"> <li>• Digital Lessons</li> <li>• Virtual Labs with Data Sheets</li> <li>• Video-Based Projects</li> <li>• Interactive Online Student Edition with Audio</li> <li>• NSTA SciLINKS</li> <li>• People in Science Gallery</li> <li>• Media Gallery</li> <li>• Online Unit Self-Checks</li> <li>• Interactive Glossary</li> <li>• Student Vocabulary Cards</li> <li>• Extra Support for Vocabulary and Concepts</li> </ul>		Y
	Content to enrich HMH programs using  <b>Google Expeditions</b>		Y
	<b>ScienceSaurus</b>	Y **	Y

\*\*Some print components are only available with specific package purchases



# New Energy for Science!

**ScienceFusion** © 2017 for Grades 6–8 is offered as modules in both Hybrid and Digital configurations where every fourth module purchased is available at a discount. The Hybrid bundle serves as the core offering, with both print and digital materials, while the Digital bundle offers a low-cost digital-only option. Common Cartridge® options are also available for purchase.

		Print	Digital
Teacher	<b>Teacher Edition</b> <ul style="list-style-type: none"> <li>• 5E Lesson Format</li> <li>• Build Inquiry and STEM Skills</li> <li>• Build Science Vocabulary</li> <li>• Professional Development</li> </ul> <ul style="list-style-type: none"> <li>• RTI, English Language Learners, and Differentiated Instruction support</li> <li>• Misconception Alerts</li> <li>• NGSS* and Common Core Correlations</li> </ul>	Y	Y
	<b>Assessment Guide</b> <ul style="list-style-type: none"> <li>• Unit Pre-Tests</li> <li>• Lesson Quizzes</li> <li>• Alternative Assessments</li> <li>• Performance-Based Assessments</li> </ul> <ul style="list-style-type: none"> <li>• Unit Reviews</li> <li>• Unit Tests</li> <li>• End-of-Module Tests</li> <li>• Answer Key and explanations of answers</li> </ul>	Y	Y
	<b>Lab Manual</b> <ul style="list-style-type: none"> <li>• Quick Labs</li> <li>• Exploration Labs</li> </ul> <ul style="list-style-type: none"> <li>• Field Labs</li> <li>• STEM Labs</li> </ul>	Y	Y
	<b>Teacher Online Management Center</b> <ul style="list-style-type: none"> <li>• Interactive Online Teacher Edition</li> <li>• Full access to Student Interactive Digital Curriculum</li> <li>• NGSS Correlation Tool</li> <li>• Professional Development Resources</li> <li>• Teacher View of Digital Lessons and Digital Lesson Tracker with Answers</li> </ul> <ul style="list-style-type: none"> <li>• PowerNotes Presentations</li> <li>• Assessment Guide and Online Assessments</li> <li>• Teacher Resource Bank</li> <li>• Google Expeditions Teacher Guide</li> </ul>	Y	Y

\*Next Generation Science Standards and logo are registered trademarks of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards was involved in the production of, and does not endorse, this product.



A series of horizontal lines for writing, with decorative overlapping circles and a spiral line in the background.

Notes

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# SCIENCE Fusion

New **Energy**  
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