



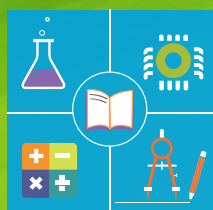
Inspire Science

Simple • Connected • Inspiring

Get Ready to Be Inspired!

Introducing the new modular K-5 science learning experience designed to prepare the next generation of innovators.

Program
Overview



GRADES
K-5



WHY IS THE SKY
BLUE?

WHY IS THE EARTH
ROUND?

WHY DOES THE SUN
SHINE?

Inspire Science

Get Ready to Be Inspired!

Learning begins with curiosity. *Inspire Science* is designed to help you spark students' interest and empower them to ask more questions, think more critically, and maximize their ability to creatively solve problems. *Inspire Science's* instructional model will prove that science education can be comprehensive and offer fun learning experiences that are sure to pique the interest of the bright minds in your classroom. Let us, help you cultivate curiosity and inspire the next generation of innovators, visionaries, and inventors.



SIMPLE

Embrace science through a simple, user-friendly teaching experience.



CONNECTED

Get more out of science time through built-in literacy and math connections.



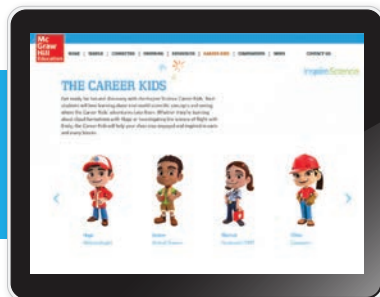
INSPIRING

Prepare students for a future full of STEM opportunities.

Hi, my name is Chloe. I am one of the twenty six **Inspire Science STEM Career Kids** your students will meet in the *Inspire Science* lessons. We help kids imagine what they might become when they grow up.



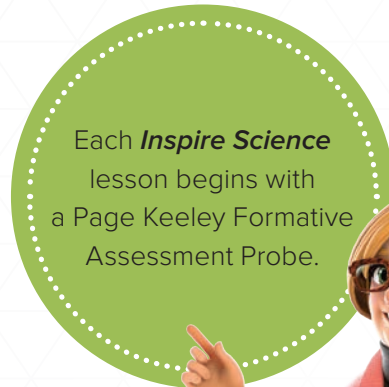
CHLOE
Carpenter



See a video of Chloe and the other STEM Career Kids at Inspire-Science.com/career_kids

User-Friendly Lesson Structure

Inspire Science lessons are designed with the familiar and proven 5E instructional model. Each lesson also comes with an easy-to-follow process so you know exactly what comes next.



PAGE KEELEY, M.ED.

Learning Progression



Key Steps to Three Dimensional Instruction

ASSESS LESSON READINESS

ENGAGE

EXPLORE

1 Page Keeley Science Probe



2 Science in Our World

3 Essential Question

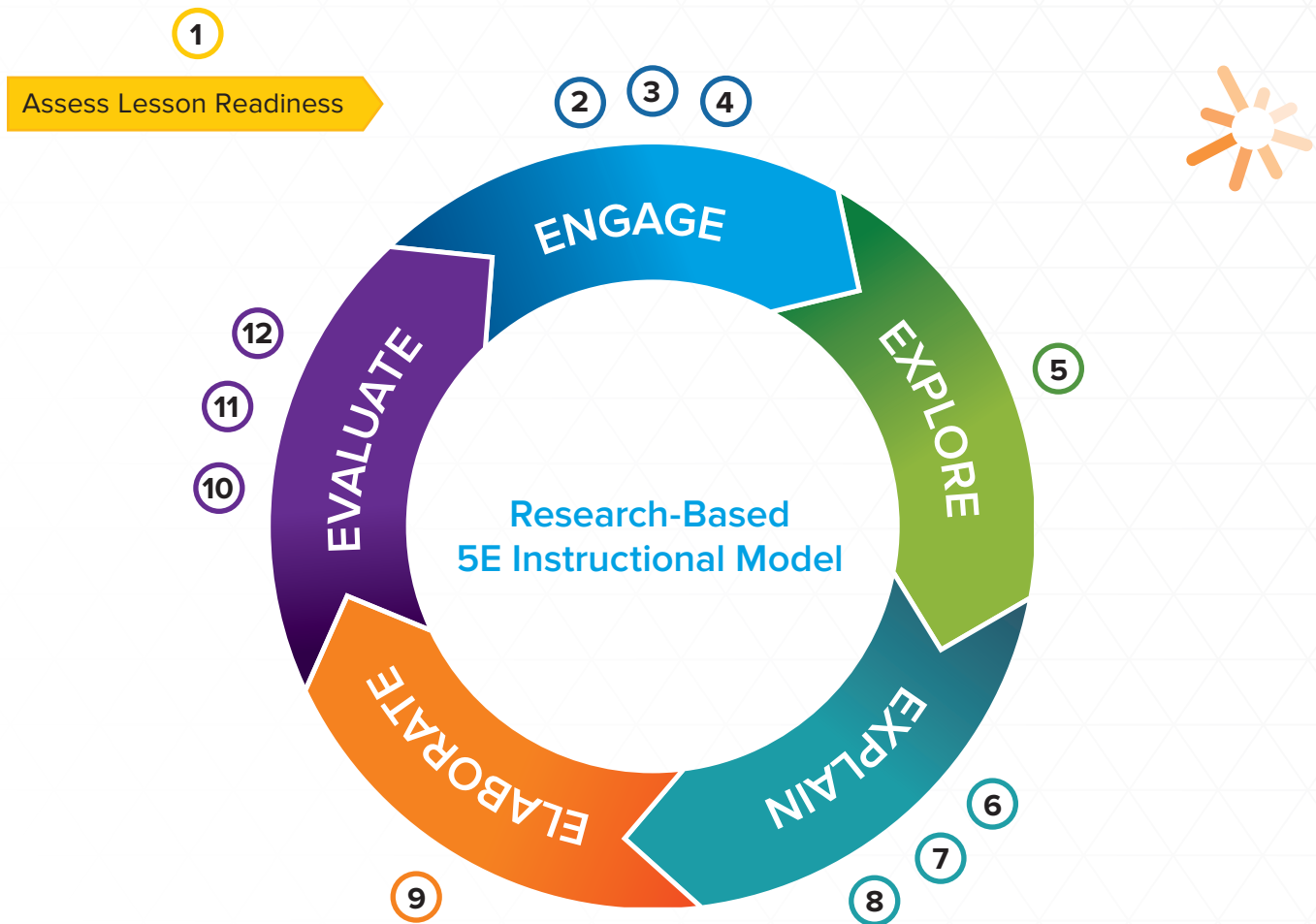
4 Science and Engineering Practices



5 Inquiry Activity



EQuIP Rubric
Aligned! Review
the Inspire Science
EQuIP Rubric at
Inspire-Science.com



EXPLAIN

ELABORATE

EVALUATE

6 Obtain and Communicate Information

7 Reflect and Refine

8 Science and Engineering Practices

9 Research, Investigate, and Communicate

10 Performance Task

12 Essential Question

12 Science and Engineering Practices

Approximate Pacing

(based on 45-minute teaching blocks)

Module = 1 month of instruction

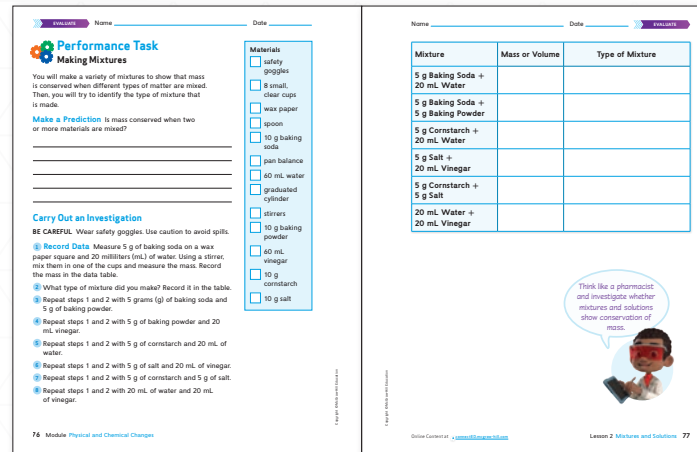
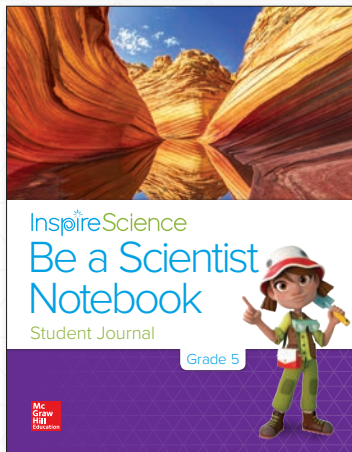
Lesson = 8-10 days of instruction

Fast Track = 4-6 days of instruction

Follow the Fast Track when short on time. We'll show you the activities key to understanding the lesson content.

User-Friendly Inquiries and Investigations

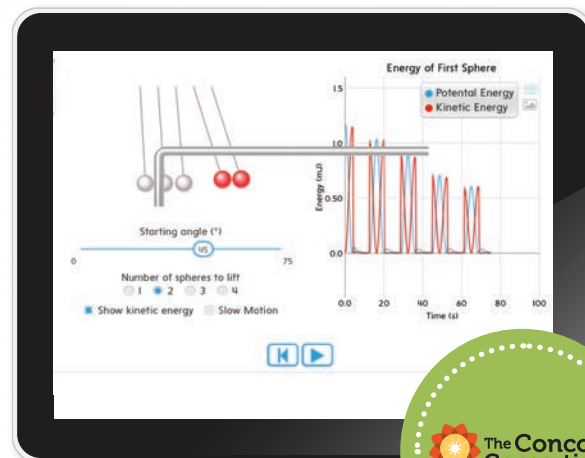
Inspire Science offers multiple inquiry activities and investigations at the module and lesson levels. Hands-on activities and performance tasks provide students the opportunity to expand content knowledge and demonstrate skills in science and engineering. Deeper conceptual understanding of science and engineering is also supported through digital simulations and game-based learning.



HANDS-ON LEARNING



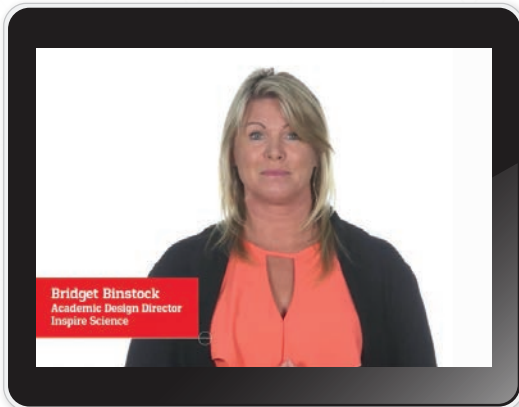
GAME-BASED LEARNING Filament Games creates digital learning games and interactives designed to foster 21st-century skills through experiential learning. *Inspire Science* has partnered with Filament Games to create game-based learning that enables students to “play” with the lesson concepts to deepen conceptual understanding.



SIMULATIONS The *Inspire Science* simulations, created in partnership with The Concord Consortium, allow students to explore cause and effect in ways that scientists and engineers do in real life and enable them to model concepts otherwise not possible to explore in the classroom.

User-Friendly Support

Inspire Science comes with extensive support and professional development to ensure that you are able to teach every one of our science lessons with great success—and feel like a real science guru, too!



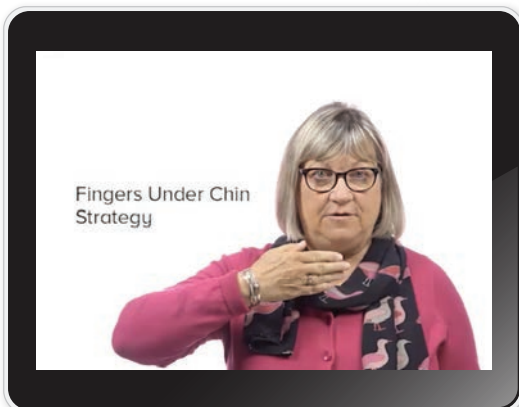
PROFESSIONAL DEVELOPMENT

- Quick Start
- Implementation
- Administrator Support Videos
- Mastery Online Courses



DINAH ZIKE, M.ED. VKV® AND FOLDABLES®

- Classroom Models
- Coaching
- Demonstration Videos



PAGE KEELEY, M.ED. FORMATIVE ASSESSMENT PROBES

- Classroom Models
- Coaching
- Teaching Techniques for Science Probes



RILEY
Automotive Engineer



3D Learning

Inspire Science integrates Science and Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts with literacy and mathematics standards so teaching science feels as natural and intuitive as it should be.



Disciplinary Core Ideas

THE CONTENT IN FOCUS

(for example, "The Universe and Its Stars")



Science and Engineering Practices

THE SKILLS

(for example, "Developing and Using Models")



Crosscutting Concepts

THE COMMON THEMES

(for example, "System and System Models")



Performance Expectations

STUDENTS APPLY AND DEMONSTRATE THEIR UNDERSTANDING

Students apply and demonstrate their understanding by using the Disciplinary Core Ideas, the Science and Engineering Practices and the Crosscutting Concepts together. (for example, "Use observations of the sun, moon, and stars to describe patterns that can be predicted.")

Cross-Curricular Connections

LITERACY **MATH**

ALL GREAT SCIENTISTS AND ENGINEERS NEED STRONG LITERACY AND MATH SKILLS.

The *Inspire Science* lessons include cross-curricular connections with quick and easy references to the specific literacy and math skills being reinforced through the science investigations.



Not using Next Generation Science Standards*? *Inspire Science* is still for you.

Inspire Science is built for Next Generation Science Standards, with the added bonus of literacy and math integration. Whether your state has adopted the Next Generation Science Standards or not, science standards everywhere are shifting to include more hands-on, problem-solving lessons, greater integration with other disciplines, and a higher demand for new, innovative science education programs. That's where *Inspire Science* can help.

*Next Generation Science Standards is a registered trademark of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards were involved in the production of or endorse this product.

Cross-Curricular Connections

Inspire Science connects the science you teach to the core subjects your students study. By integrating science, literature, and math, students master key concepts that impact science and beyond.



Science + Engineering Practices

Students achieve and demonstrate greater understanding through hands-on science and engineering activities using the engineering design process.

- Asking Questions and Defining Problems
- Developing and Using Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations and Designing Solutions
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information

Performance Task
Energy Transfer Machine

You have learned about different types of energy transfer. Now, it is time to show what you have learned by completing an investigation. As a physicist, you will plan and carry out an investigation to design a Rube Goldberg device that demonstrates energy transfers.

Rubeen "Rube" Goldberg was an engineer who used his knowledge of how things work to draw fun cartoons. He is best known for his "inventions." A Rube Goldberg device is an elaborate setup with many different parts, such as arms, wheels, gears, handles, ramps, string, pulleys, and cups. The parts of the device are put into motion by balls, pails, boots, balloons, and even live animals!

Using Rube Goldberg's drawings as a model, you will design your own device for solving a problem or completing a task. You will use the following steps to complete your design:

1. Research Rube Goldberg devices.
2. Choose a problem or task that your device will solve or complete.
3. Use the research you completed to plan, design, and draw your device. Include labels for the energy transfers that occur in your device.

Crosscutting Concepts
Energy and Matter

4. Explain the different ways your device shows energy being transferred between objects.

Essential Question
How is energy transferred?

Think about the photo of a person being launched from a cannon at the beginning of the lesson. Explain how energy is being transferred from the cannon to the person.

Science and Engineering Practices

Review the "I can..." statement you wrote earlier in the lesson. Explain what you have accomplished in this lesson by completing the "I did..." statement.

I did _____

Now that you're done with the lesson, share what you did!

Be a Scientist Notebook
Student Journal
Grade 4

PERFORMANCE TASK



Math Practices

Students solve science and engineering challenges using math skills including:

- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Developing and Using Models
- Obtaining, Evaluating, and Communicating Information



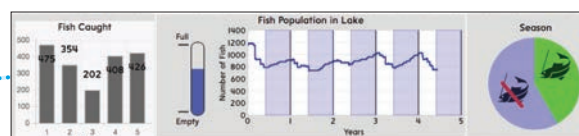
Five years are over!

In this round, you caught **1469** fish.

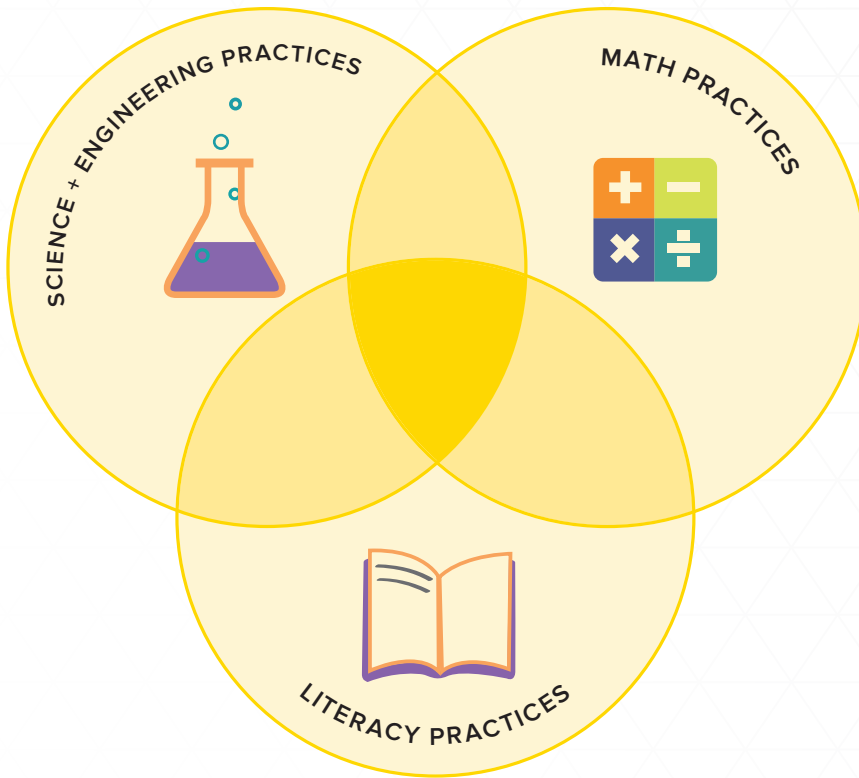
Did you have any trouble catching fish any year?

Look at the chart of the fish you caught, and the graph of the population of fish over the five years. Can you think of why fish might have been harder to catch during some years?

Continue



SIMULATIONS



Hi, I'm Antonio and I'm one of the **STEM Career Kids!** We'll lead your students through *Inspire Science!*



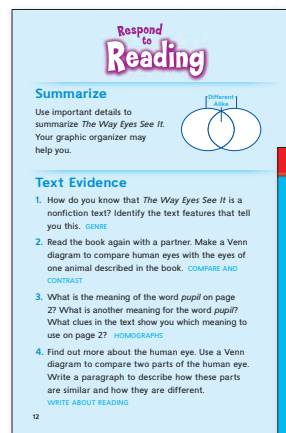
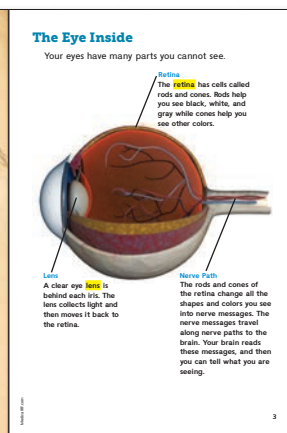
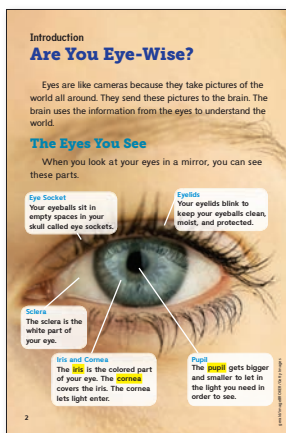
ANTONIO
Robotics Engineer



Literacy Practices

Students hone close reading, writing, and communication skills, develop solutions to real-world challenges while learning about exciting science content.

- Build Literacy Skills and Science Knowledge with Content-Rich Text
- Obtain, Evaluate, and Communicate Findings Effectively in Response to Tasks
- Engage in Arguments From Evidence and Apply Reasoning Skills
- Develop Research and Close-Reading Skills
- Advance Communication and Writing Skills with Text-Dependent Questions
- Develop Summary and Text-Evidence Skills
- Make Fiction and Informational Text Connections



LEVELED READERS

Approaching, On, Beyond, ELL, & On-Level Spanish (Grades K-5)




Preparing the Next Generation of Innovators

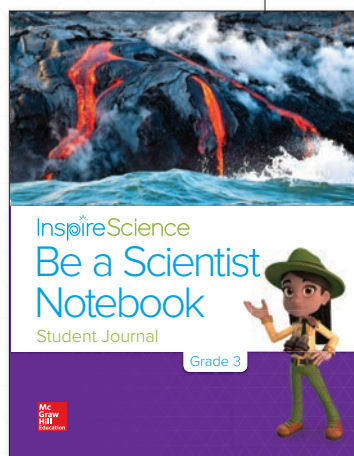
The pace of change is accelerating. The challenges your students will face in their careers will likely be ones that don't even exist yet. Their future will require problem-solving skills that go beyond the status quo. *Inspire Science* is designed to help today's students prepare for any future they may face through an emphasis on problem-based and career-based learning. With *Inspire Science*, your students will learn to think like scientists and engineers, and develop the skills they need to create solutions to everyday challenges.



Problem-Based Learning

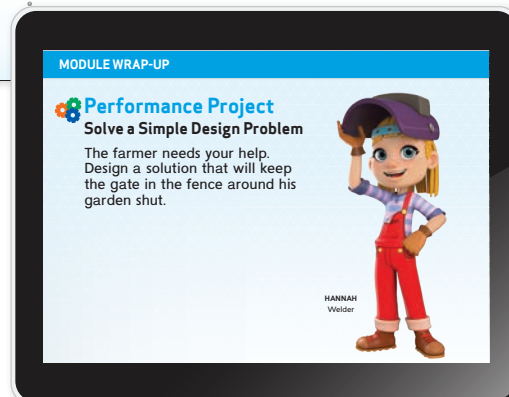
Empower students to develop critical-thinking through *Inspire Science*'s problem-based learning components.

<p>MODULE WRAP-UP Name _____ Date _____</p> <h3>Electric and Magnetic Forces</h3> <p> Performance Project Solve a Simple Design Problem</p> <p>The farmer needs your help! Create a design solution that will keep the gate around his garden shut.</p> <p>Make a list of ways you could solve the problem.</p> <p><u>Sample answer: I could use a magnet on each side of the gate. I could use string to tie the gate closed.</u></p> <p>_____</p> <p>_____</p> <p>Do any of your solutions use magnets? If not, how could you incorporate magnets?</p> <p><u>Sample answer: I am using magnets in one of my solutions, placing opposite poles on each side.</u></p> <p>_____</p> <p>_____</p> <p><small>Copyright © McGraw-Hill Education</small></p>	<p>Name _____ Date _____ MODULE WRAP-UP</p> <p>Use what you learned about magnetism and electricity to design a solution!</p>  <p>Design a sketch of the solution to the gate problem using magnets. Label the sketch.</p> <p><u>Students should show where magnets will be used to keep the gate closed.</u></p> <p>How does the design solve the gate problem?</p> <p><u>Sample answer: The magnets were attracted to each other, so the gate stayed shut.</u></p> <p>How could you improve the solution?</p> <p><u>Accept reasonable answers. Sample answer: I could use bigger and stronger magnets.</u></p> <p> Explore More in Our World</p> <p>Did you learn the answers to all of your questions from the beginning of the module? If not, how could you design an experiment or conduct research to help answer them?</p>
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Wrap-Up Electric and Magnetic Forces

PERFORMANCE PROJECT






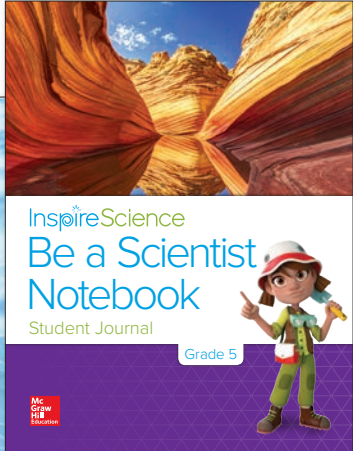
Career-Based Learning


Watch **STEM**
Career Kid Videos at
[Inspire-Science.com/
career_kids](http://Inspire-Science.com/career_kids)

Future Career

Ocean Engineer Have you ever wondered what lies on the ocean floor? An ocean engineer studies this mysterious part of Earth. They develop vehicles that explore parts of the ocean floor that are dangerous for humans to go to. Ocean engineers identify the effect of the ocean on the shore and restore beaches that have worn away. They also examine coastal ecosystems for changes. These engineers are looking for safe ways to drill for oil and natural gas on the ocean floor.





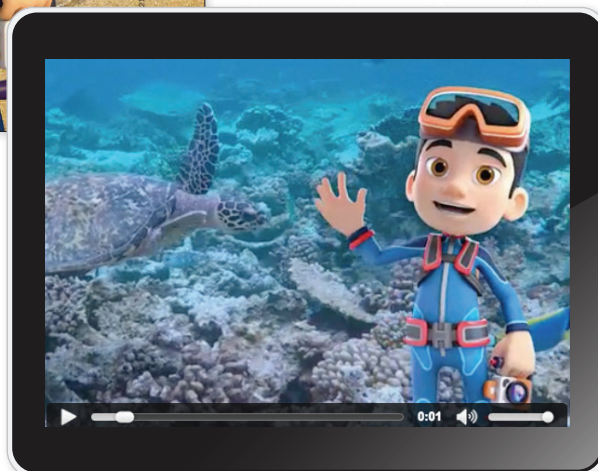


136 Earth Science



HIRO
Ocean Engineer

INSPIRE CURIOSITY WITH THE STEM CAREER KIDS



A Flexible, Digital, Learning Experience with Print Where It Matters Most

Interactive
Whiteboard
and Mobile
Friendly

DIGITAL



DIGITAL TEACHER CENTER



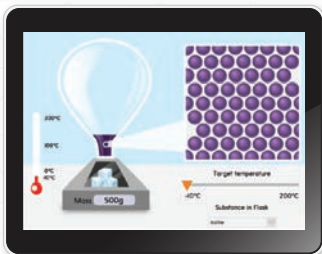
DIGITAL STUDENT CENTER



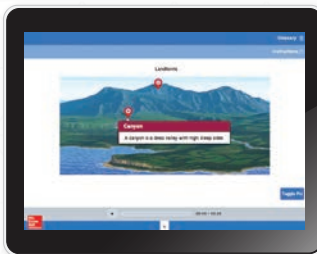
READY-TO-GO LESSON PRESENTATIONS



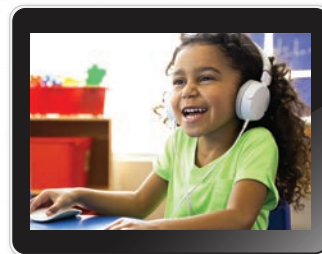
SIMULATIONS



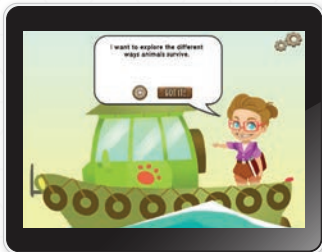
INTERACTIVES



SCIENCE SONGS



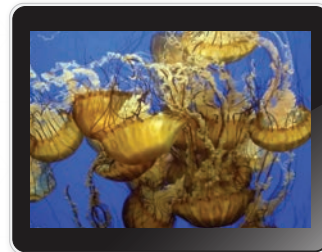
GAMES



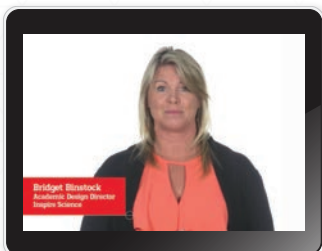
eASSESSMENT



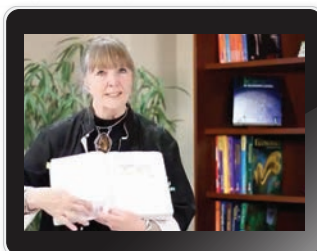
VIDEOS



PROFESSIONAL DEVELOPMENT



DINAH ZIKE, M.ED. VIDEO LIBRARY



INSPIRE SCIENCE INVESTIGATOR



Components Overview



DIGITAL AND PHYSICAL

TEACHER'S EDITION

(Grades K-5)



BE A SCIENTIST NOTEBOOK

(Grades K-5)



LEVELED READERS

(Grades K-5) Available in Spanish



SCIENCE PAIRED READ ALOUDS

(Grades K-2) Available in Spanish



SCIENCE HANDBOOK

(Grades K-5) Available in Spanish



Digital versions of the student books include audio, dynamic search tools, text highlighting, and more.

PHYSICAL

LAB KITS

Inspire Science lab kits contain hands-on activity materials clearly labeled and correlated to each module.



GRACE
Computer Programmer



InspireScience

SIMPLE • CONNECTED • INSPIRING



For a 30-day
digital trial, visit
Inspire-Science.com