Mc Graw Hill Education

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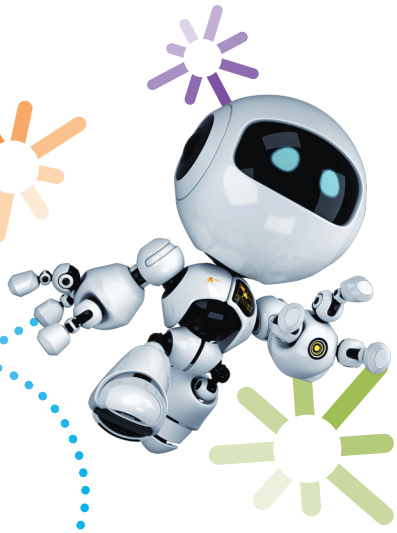


GEORGIA

Inspire Science

User-Friendly • Connected • Inspiring

Digital Tour Guide

Welcome to the *Georgia Inspire Science* Digital Experience

Thank you for taking the time to review *Georgia Inspire Science*. This step-by-step Digital Tour Guide will help you find your way through the many engaging interactives that support *Georgia Inspire Science* print resources.

HALEY
Astronomer

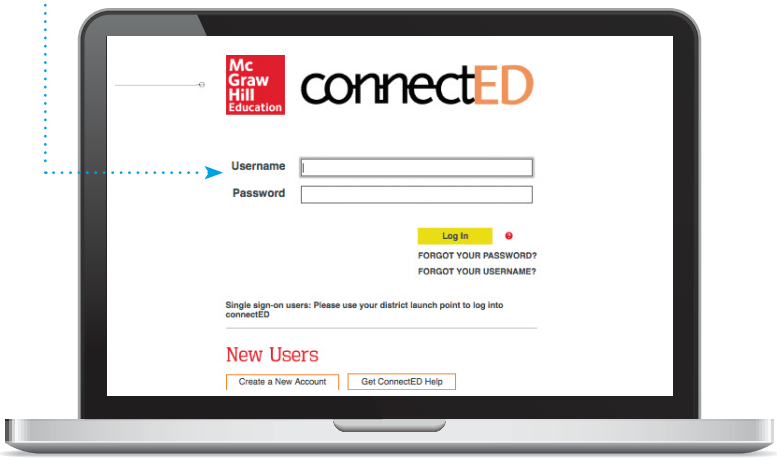
Ready to Start **Your Digital Tour?**

Visit **mheonline.com/Georgia**

Log In

To get started, go to **mheonline.com/Georgia** and then click on Start Digital Review.

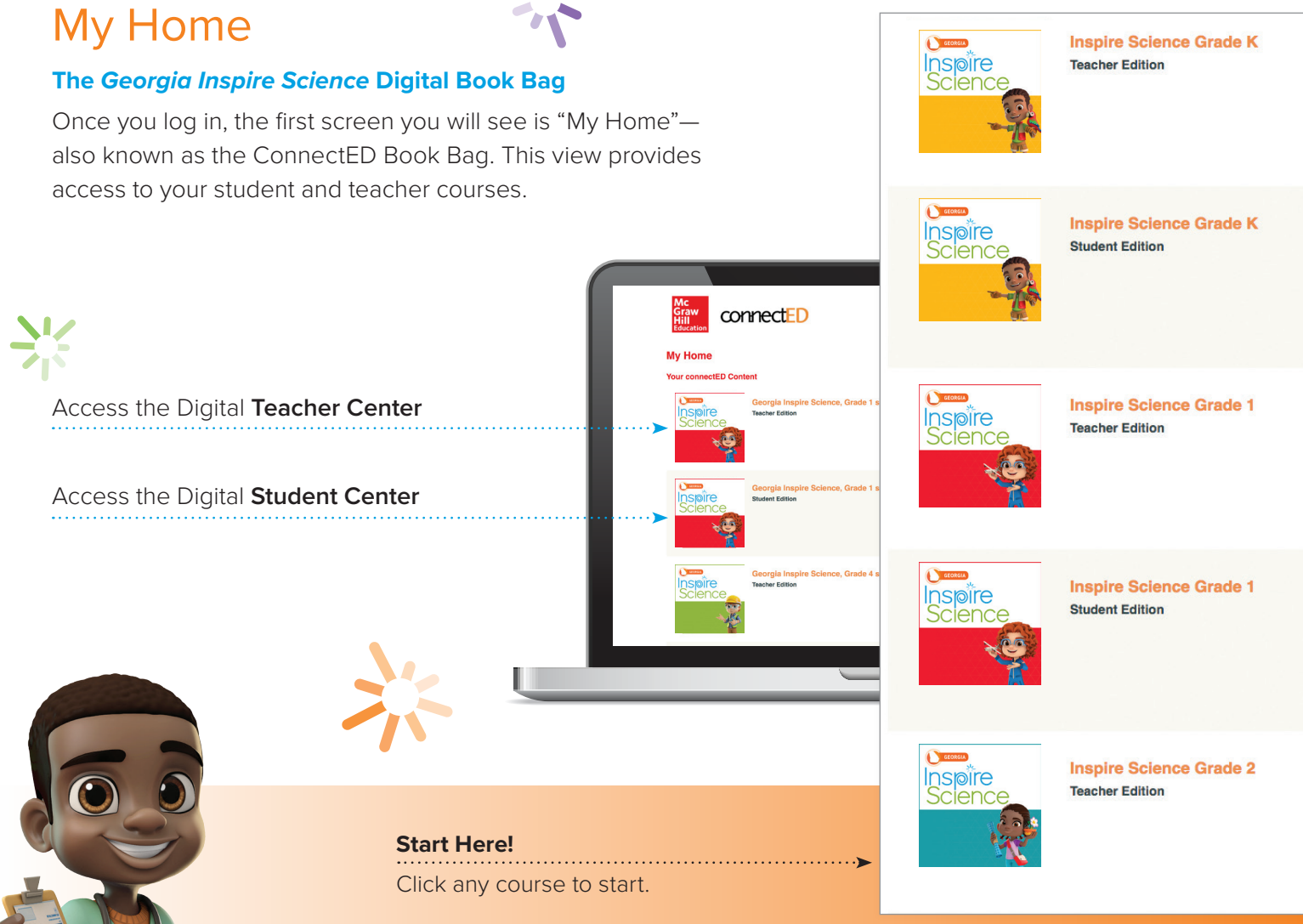
Click “Log In Now” from the generated email and enter the username and password provided.



My Home

The *Georgia Inspire Science* Digital Book Bag

Once you log in, the first screen you will see is "My Home"—also known as the ConnectED Book Bag. This view provides access to your student and teacher courses.



Access the Digital **Teacher Center**

Access the Digital **Student Center**

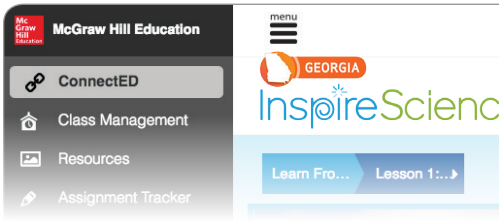
NOAH
Nurse

Start Here!

Click any course to start.

Need to Return to My Home?

To get back to your book bag, just select "ConnectED" from the main menu.



Teacher Center Home Page

The *Georgia Inspire Science* Teacher Center home page provides quick access to your Lesson Presentations, the Student Lesson view, the STEM Career Kid Videos, and Assignments. Just select the module and lesson you need from the Module and Lesson Menu, and the key tools for that lesson will appear in the Lesson Resources carousel.

Main Menu

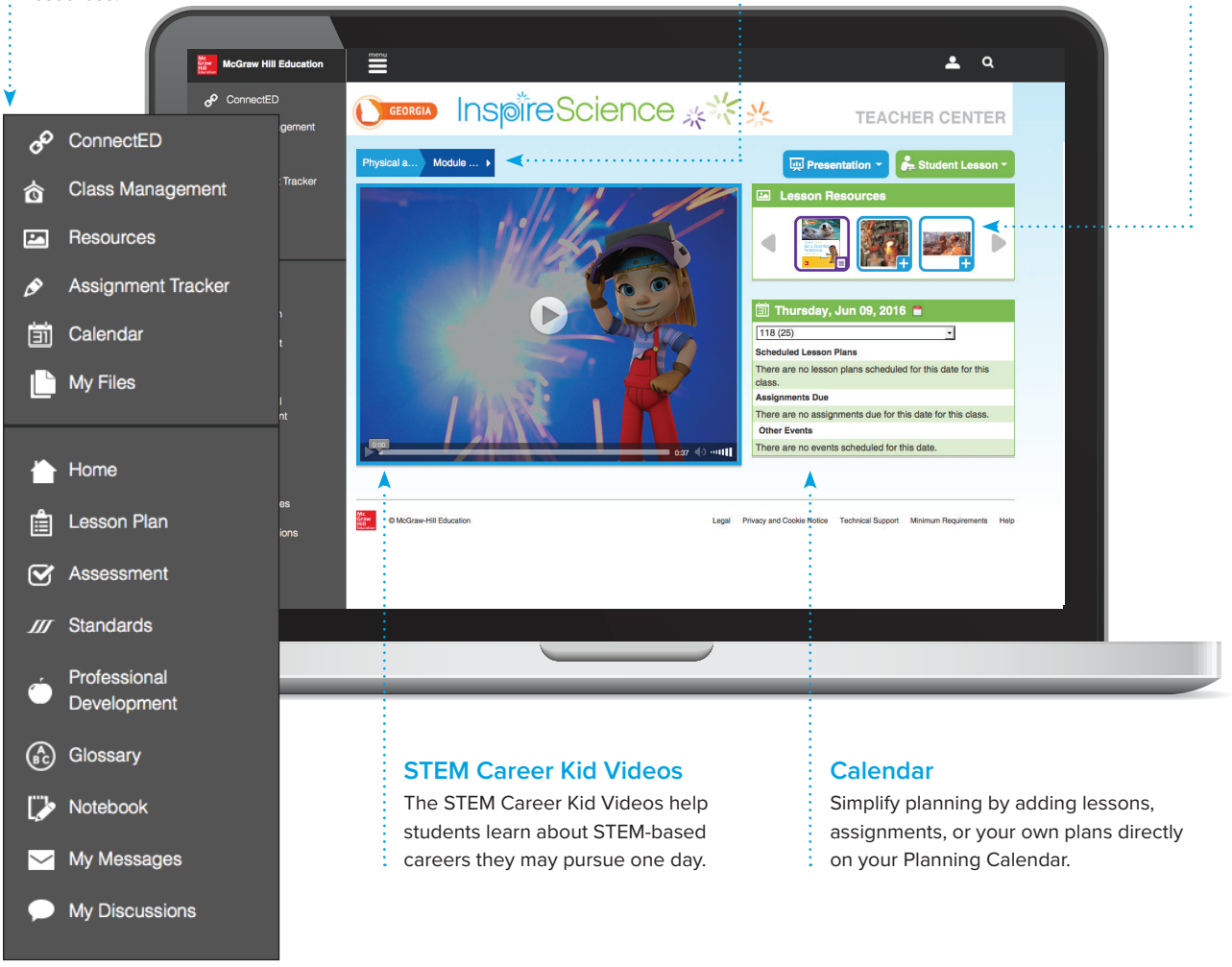
Open the Main Menu to access the key links, including your Digital Lesson Plans and Professional Development resources.

Module and Lesson Menu

Access digital resources by choosing the module and lesson from the drop-down menu.

Lesson Resources Carousel

This is one of the many ways to access digital resources that accompany each lesson.



STEM Career Kid Videos

The STEM Career Kid Videos help students learn about STEM-based careers they may pursue one day.

Calendar

Simplify planning by adding lessons, assignments, or your own plans directly on your Planning Calendar.

Lesson Presentation

The Georgia *Inspire Science* Lesson Presentations provide a step-by-step guide through each lesson. The presentations are completely aligned to the lesson content, fully customizable, and embedded with multimedia assets.

Customize Presentations

Quickly and easily customize each presentation by adjusting existing slide order or uploading your own resources to the presentation in the slide sorter view.

To access this slide sorter view, select the waffle icon in the bottom left-hand corner of your lesson presentation view.

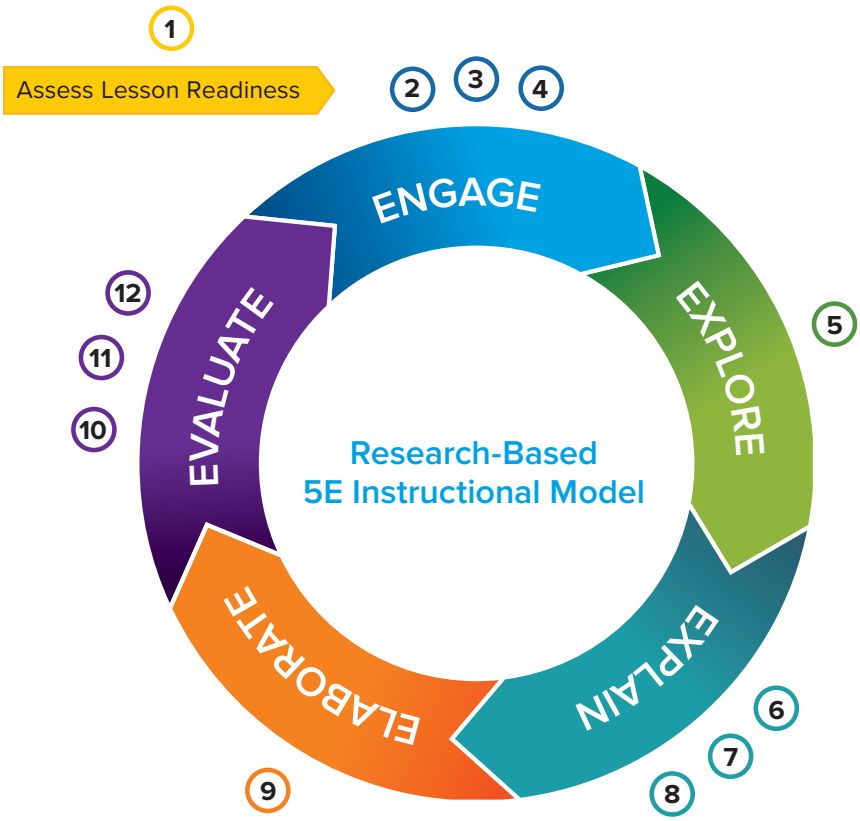
Launch Digital Resources

You can launch digital resources right when you need them directly from the presentation slides.

MAYA
Geologist

The *Georgia Inspire Science* Lesson Anatomy

Georgia Inspire Science lessons are designed with the familiar and proven 5E instructional model, and the McGraw-Hill Education Key Steps to Three-Dimensional Instruction. Each lesson begins with a phenomenon to explore through the lens of the science and engineering practices. This exploration presents new questions and problems to solve, which creates a motivational circumstance for learning core disciplinary ideas.



Key Steps to Three Dimensional Instruction

1. Page Keeley Science Probe
2. Science in Our World
3. Essential Question
4. Science and Engineering Practices
5. Inquiry Activity
6. Obtain and Communicate Information
7. Reflect and Refine
8. Science and Engineering Practices
9. Research, Investigate, and Communicate
10. Performance Task
11. 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

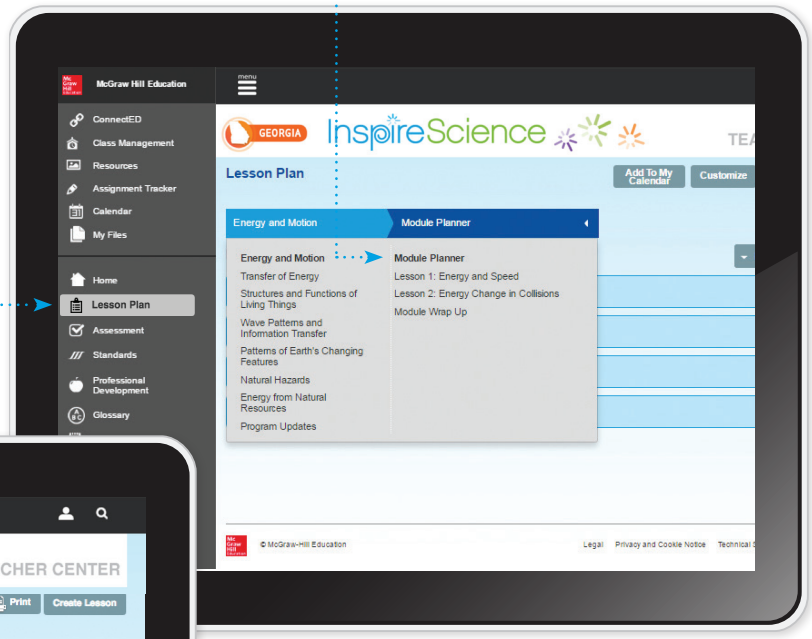
Lesson Plans

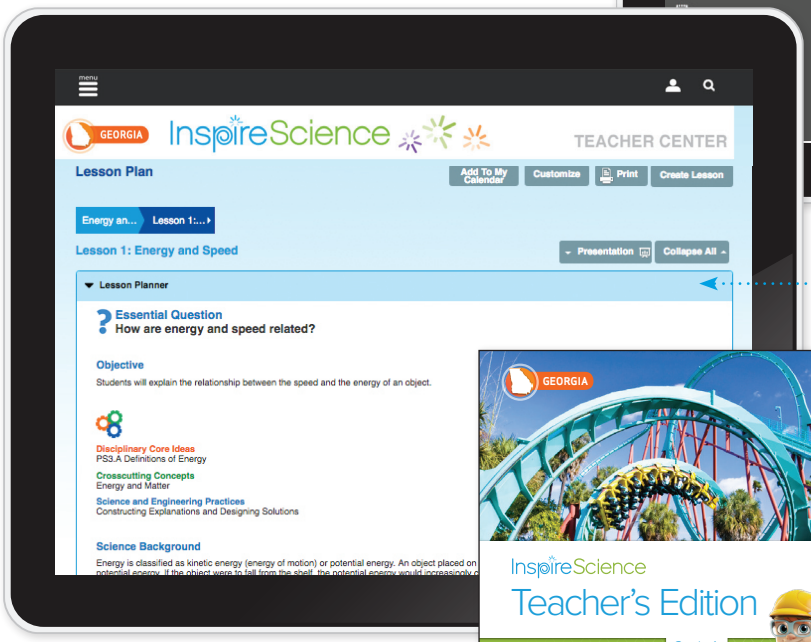
The *Georgia Inspire Science* Lesson Plans are easy to use and fully customizable, giving you complete control of how you craft your lessons. All the resources you need are conveniently located in one place with access to a myriad of robust materials for every lesson.

To access the *Georgia Inspire Science* digital lesson plans, select Lesson Plan from the Main Menu ☰:

1 First, select Lesson Plan from the Main Menu.

2 Choose the module and lesson you need from the Module and Lesson Menu.





3 Open the Lesson Plan folders to access your instructions and digital resources.

You can also access your lesson plans in ConnectEd by using the Teacher's Edition files in Resources:

1. Select "Resources" from the Main Menu.
2. Select "Program Resources" and "Teacher's Edition PDFs" from the Lesson Search Tab.

▼ Module at a Glance

Module at a Glance

Each Module at a Glance includes a module overview, lesson summaries, and easy-to-use pacing guides. Be prepared with the Plan Ahead section that includes detailed materials lists for each hands-on activity.

CJ
Statistician

To help you prepare ahead of time, the hands-on activities and the materials you will need are listed in the Module at a Glance pages.

Inspiring All Students

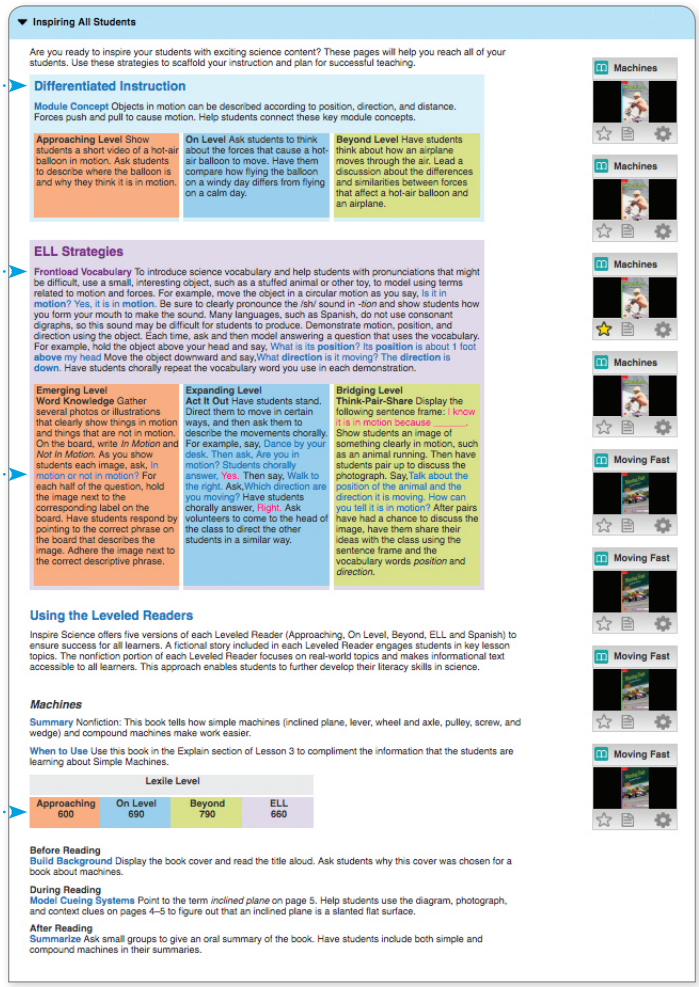
Use differentiated instruction, ELL strategies, and leveled readers to inspire all your students to learn exciting science concepts.

Provide meaningful content interaction by scaffolding differentiated strategies.

Facilitate learning by frontloading important content vocabulary.

Integrate literacy skills and science content together to build language and expand science knowledge simultaneously.

Use Lexile levels to easily determine the correct book for each of your students.



Inspiring All Students

Are you ready to inspire your students with exciting science content? These pages will help you reach all of your students. Use these strategies to scaffold your instruction and plan for successful teaching.

Differentiated Instruction

Module Concept Objects in motion can be described according to position, direction, and distance. Forces push and pull to cause motion. Help students connect these key module concepts.

Approaching Level Show students a short video of a hot-air balloon in motion. Ask students to describe where the balloon is and why they think it is in motion.

On Level Ask students to think about the forces that cause a hot-air balloon to move. Have them compare how flying the balloon on a windy day differs from flying on a calm day.

Beyond Level Have students think about how an airplane moves through the air. Lead a discussion about the differences and similarities between forces that affect a hot-air balloon and an airplane.

ELL Strategies

Frontload Vocabulary To introduce science vocabulary and help students with pronunciations that might be difficult, use a small, interesting object, such as a stuffed animal or other toy, to model using terms related to motion and forces. For example, move the object in a circular motion as you say, Is it in **motion**? Yes, it is in **motion**. Be sure to clearly pronounce the /sh/ sound in -tion and show students how you form your mouth to make the sound. Many languages, such as Spanish, do not use consonant digraphs, so this sound may be difficult for students to produce. Demonstrate motion, position, and direction using the object. Each time, ask and then model answering a question that uses the vocabulary. For example, hold the object above your head and say, What is its **position**? Its **position** is about 1 foot **above** my head. Move the object downward and say, What **direction** is it moving? The **direction** is **down**. Have students chorally repeat the vocabulary word you use in each demonstration.

Emerging Level
Word Knowledge Gather several photos or illustrations that clearly show things in motion and things that are not in motion. On the board, write *In Motion* and *Not In Motion*. As you show students each image, ask, Is **motion** or not in **motion**? For each half of the question, hold the image next to the corresponding label on the board. Have students respond by pointing to the correct phrase on the board that describes the image. Adhere the image next to the correct descriptive phrase.

Expanding Level
Act It Out Have students stand. Direct them to move in certain ways, and then ask them to describe the movements chorally. For example, say, Dance by your desk. Then ask, Are you in **motion**? Students chorally answer, Yes. Then say, Walk to the right. Ask, Which direction are you moving? Have students chorally answer, Right. Ask volunteers to come to the head of the class to direct the other students in a similar way.

Bridging Level
Think-Pair-Share Display the following sentence frame: I know it is in **motion** because _____. Show students an image of something clearly in motion, such as an animal running. Then have students pair up to discuss the photograph. Say, Talk about the position of the animal and the direction it is moving. How can you tell it is in **motion**? After pairs have had a chance to discuss the image, have them share their ideas with the class using the sentence frame and the vocabulary words *position* and *direction*.

Using the Leveled Readers

Inspire Science offers five versions of each Leveled Reader (Approaching, On Level, Beyond, ELL and Spanish) to ensure success for all learners. A fictional story included in each Leveled Reader engages students in key lesson topics. The nonfiction portion of each Leveled Reader focuses on real-world topics and makes informational text accessible to all learners. This approach enables students to further develop their literacy skills in science.

Machines

Summary Nonfiction: This book tells how simple machines (inclined plane, lever, wheel and axle, pulley, screw, and wedge) and compound machines make work easier.

When to Use Use this book in the Explain section of Lesson 3 to compliment the information that the students are learning about Simple Machines.

Lexile Level			
Approaching 600	On Level 690	Beyond 790	ELL 660

Before Reading
Build Background Display the book cover and read the title aloud. Ask students why this cover was chosen for a book about machines.

During Reading
Model Cueing Systems Point to the term *inclined plane* on page 5. Help students use the diagram, photograph, and context clues on pages 4–5 to figure out that an inclined plane is a slanted flat surface.

After Reading
Summarize Ask small groups to give an oral summary of the book. Have students include both simple and compound machines in their summaries.

Machines
Machines
Machines
Machines
Moving Fast
Moving Fast
Moving Fast
Moving Fast

Georgia Inspire Science offers 1–2 leveled reader titles per module with five versions of each (Approaching, On Level, Beyond, ELL, and On-Level Spanish) to ensure success for all learners. Each leveled reader is available in digital and print.

- Approaching
- On Level (available in Spanish)
- Beyond
- ELL

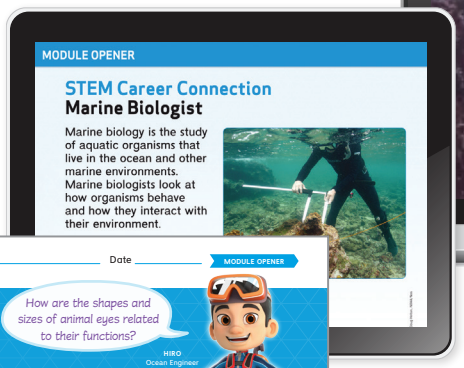
Module Opener

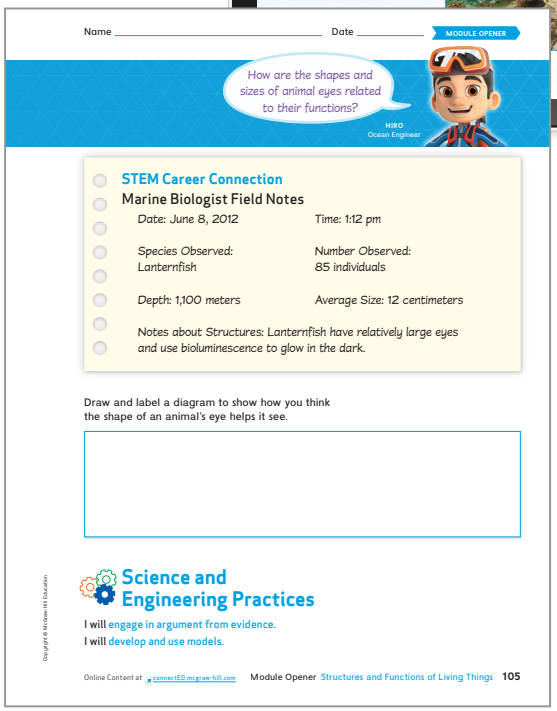
Module Opener and Science Phenomenon

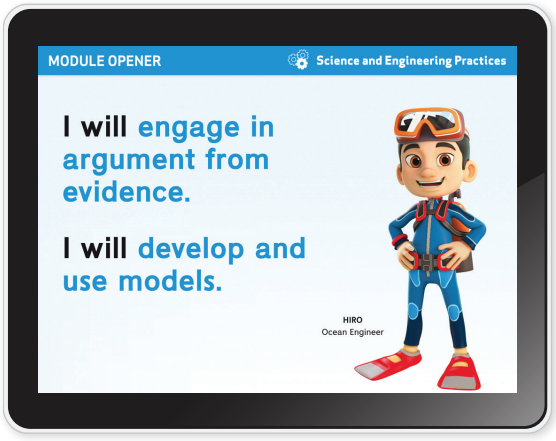
The Module Opener kicks off the module by having students explore an exciting science phenomenon and STEM career connections.

Every module begins with a video or picture of a science phenomenon and a phenomenon question that will spark students' curiosity and start an engaging conversation that promotes deeper thinking.

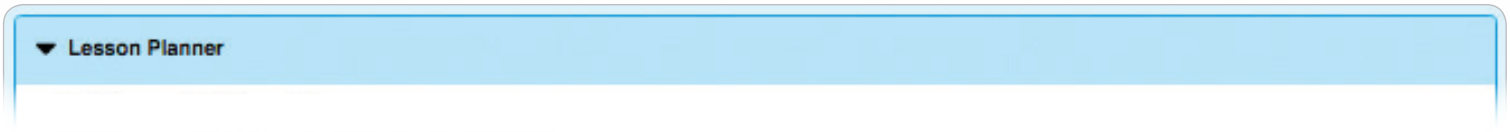
Make STEM career connections.







"I will . . . " statements reference a science and engineering practice and provide students with an overview of what they will be learning.

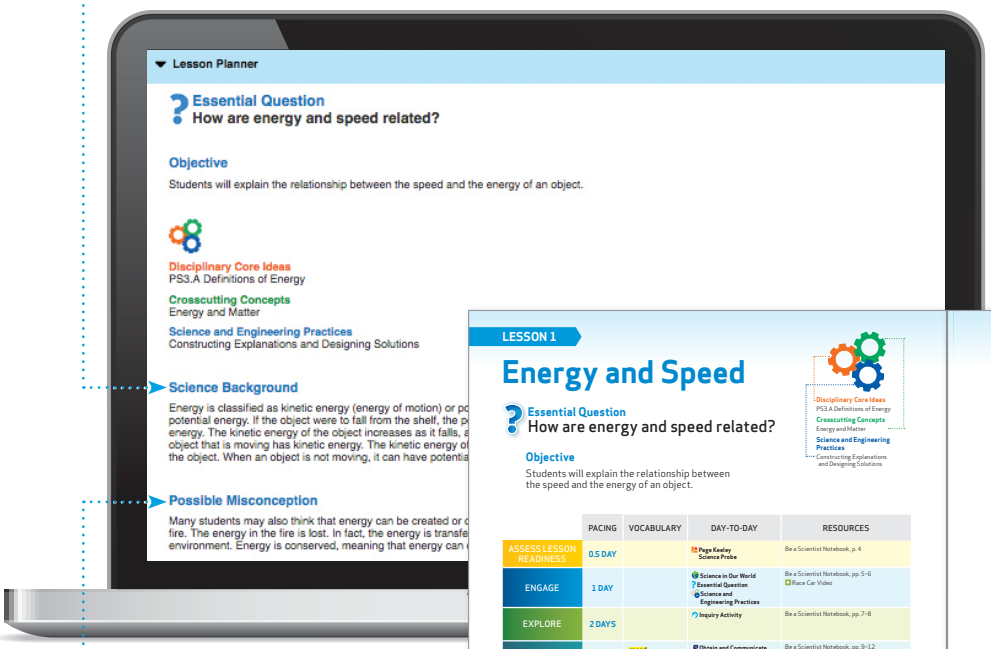


Lesson Planner

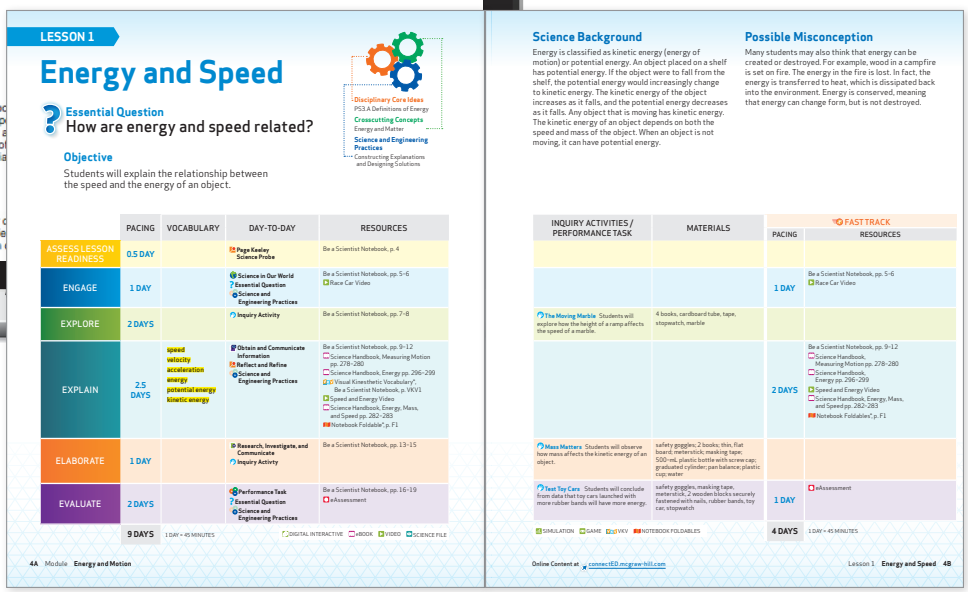
The lesson plan introduces you to the Essential Question, lesson objectives, and a detailed pacing guide. Science background information and common misconceptions are also included.

JORDAN
Animal Trainer

Each lesson has detailed science background information to help you feel like a science guru.



Possible misconceptions are provided so you are prepared to address student misunderstandings.



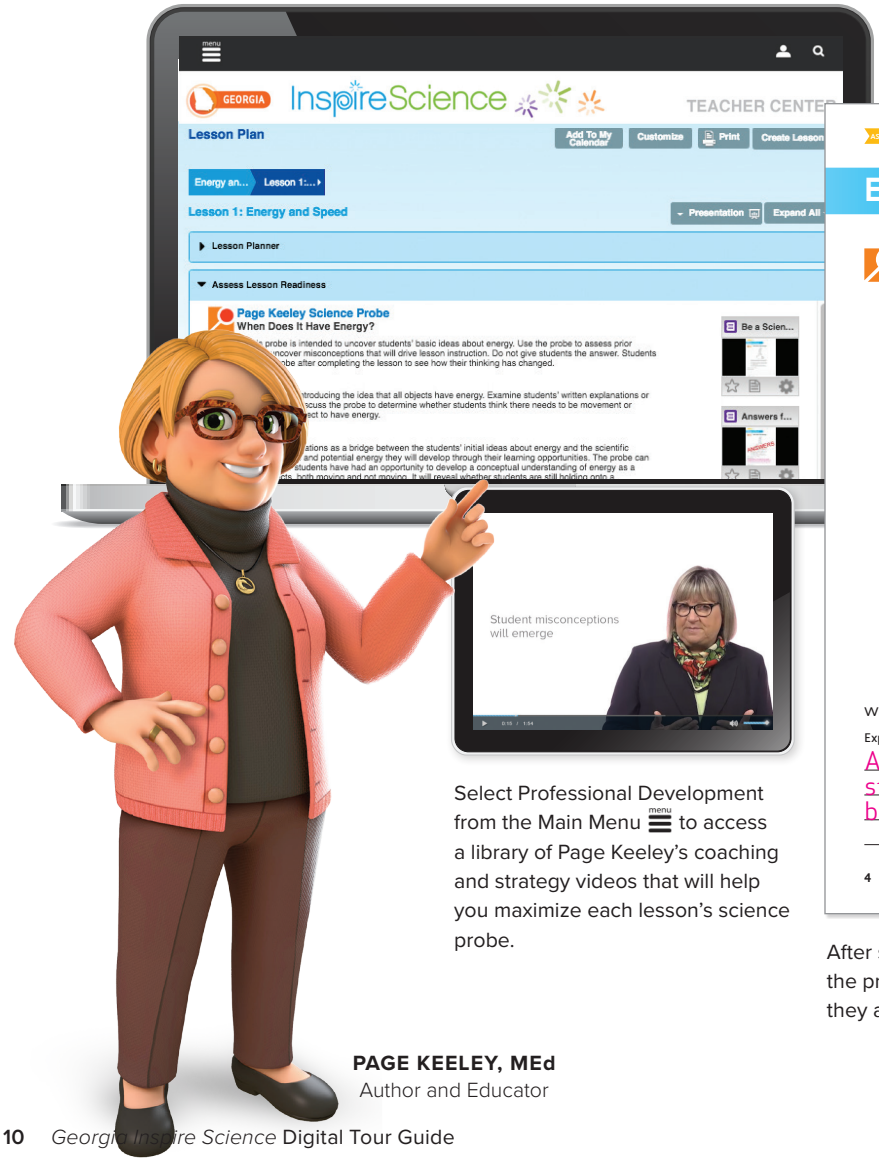
The lesson pacing guide breaks down the day-to-day instruction, the resources you will use, hands-on activities, and the necessary materials.

Fast track pacing is also available when time is of the essence.

Assess Lesson Readiness

Assess Lesson Readiness with Page Keeley's Science Probes

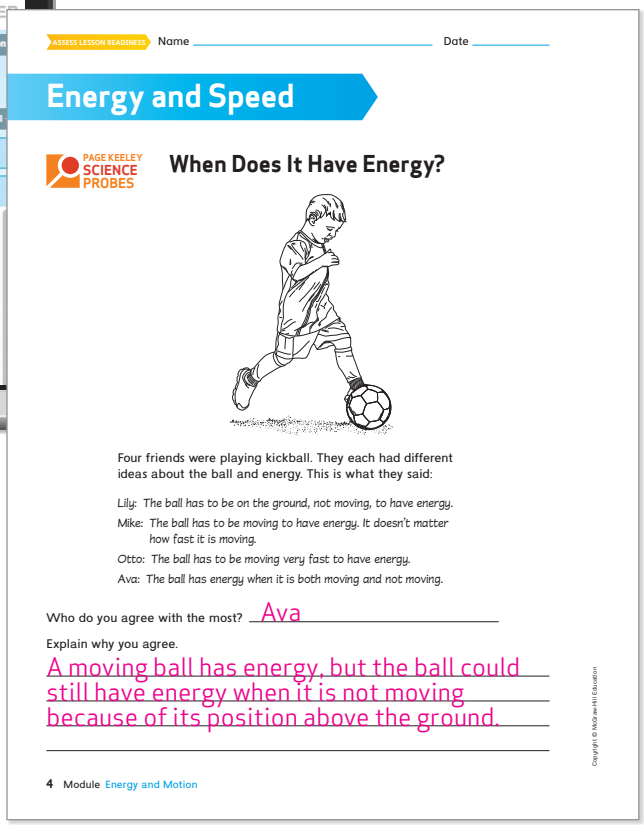
You will be able to assess student readiness with a Page Keeley Science Probe in every lesson. Each Page Keeley Probe includes teaching and learning implications, how to use the probe, common misconceptions, and a teacher explanation.



PAGE KEELEY, MEd
Author and Educator

Select Professional Development from the Main Menu ☰ to access a library of Page Keeley's coaching and strategy videos that will help you maximize each lesson's science probe.

Page Keeley's Science Probes are included in every lesson. The science probes are intended to uncover students' initial ideas.



ASSESS LESSON READINESS Name _____ Date _____

Energy and Speed

PAGE KEELEY SCIENCE PROBES

When Does It Have Energy?

Four friends were playing kickball. They each had different ideas about the ball and energy. This is what they said:

Lily: The ball has to be on the ground, not moving, to have energy.
Mike: The ball has to be moving to have energy. It doesn't matter how fast it is moving.
Otto: The ball has to be moving very fast to have energy.
Ava: The ball has energy when it is both moving and not moving.

Who do you agree with the most? Ava

Explain why you agree.

A moving ball has energy, but the ball could still have energy when it is not moving because of its position above the ground.

4 Module Energy and Motion

After students record their answers to questions about the probe independently in their Be a Scientist Notebooks, they are encouraged to discuss and display their ideas.

▼ Engage

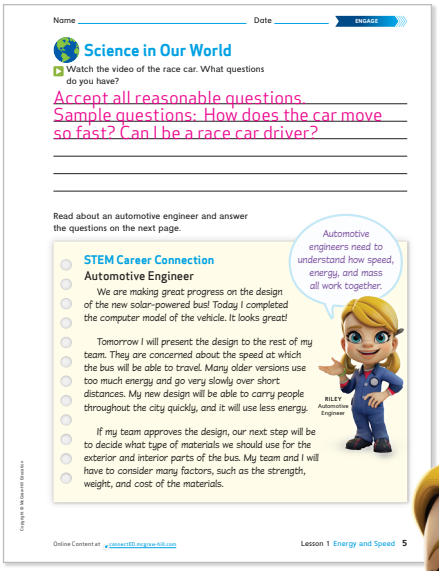
Engage

The Engage phase inspires curiosity with science phenomenon demonstrations, videos, or photos. Students will discover science phenomena through the same lens as scientists and engineers, as well as participate in group discussions that explore core concepts the lesson will reveal. You can then further the conversation and spark student interest by introducing the STEM Career Connections.

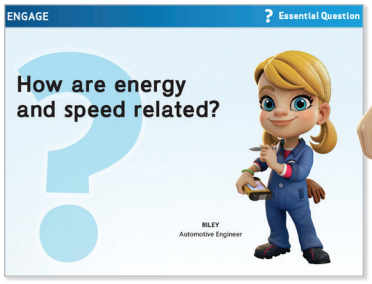
Spark students' curiosity with the lesson phenomenon and start a conversation.

Learn about an exciting STEM Career that connects with the lesson.

Collect evidence throughout the lesson to engage in Science and Engineering Practices.



Help students improve critical learning skills as they turn their observations into questions.

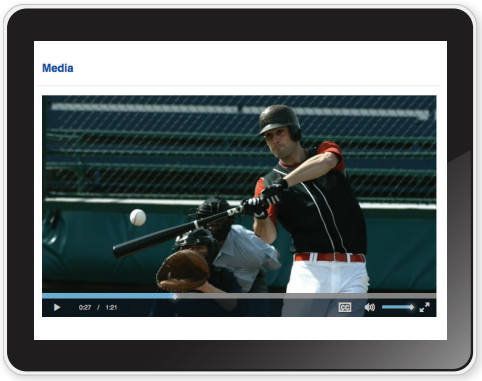


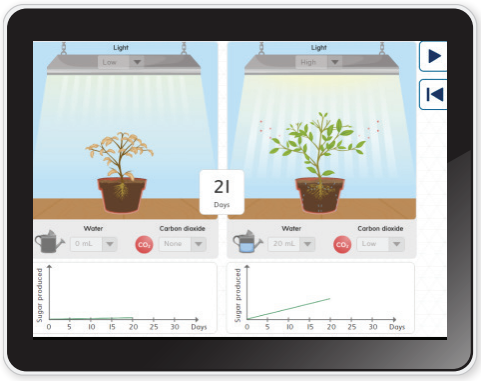
Build upon learning as students use prior knowledge and observations to attempt to answer the Essential Question.

RILEY
Automotive Engineer

Explore

In the Explore phase of the lesson, students will use hands-on activities, simulations, videos, demonstrations, and more to carry out investigations, collect and interpret data, and get more involved in the lesson concepts to start building understanding.

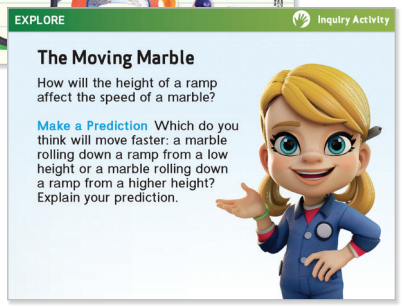




Students will get excited about their learning when they participate in inquiry activities using simulations and videos.

JIN
Paleontologist

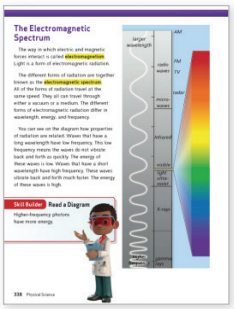
Use hands-on activities and teacher-led demonstrations to make predictions, carry out investigations, record and analyze data, communicate findings, and construct explanations.



Use interactive tools to communicate findings and make connections.

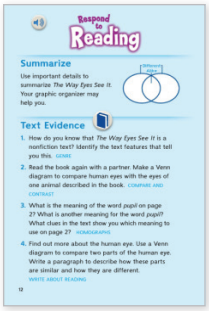
Explain

Connect literacy and science through inquiry by providing students with an array of print and interactive resources to conduct research and explain their understanding. Students develop research and reading skills while deepening their understanding of core science topics, and learn to connect this learning back to prior experiences and the Essential Question.

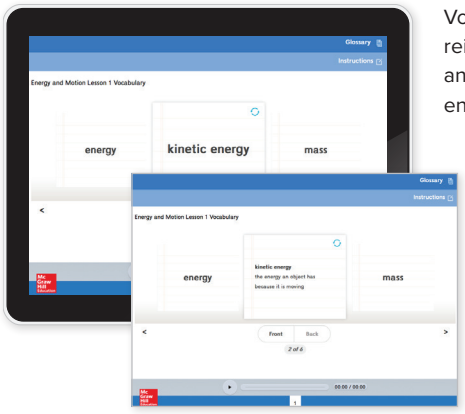


Integrate literacy with science instruction to help your students build literacy skills while they are learning science.

Make fictional and informational text connections with Science Paired Read Aloud books.



Build summary and text evidence skills with leveled readers.



Vocabulary interactives reinforce important terminology and key concepts in a fun and engaging way.

FilamentGames

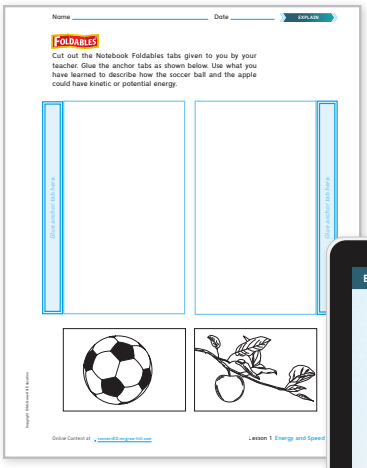
The *Georgia Inspire Science* digital learning games (developed by Filament Games) teach and reinforce deeper conceptual science understanding by immersing students in experimental learning through play.

ERIK
Video Game Designer

Explain

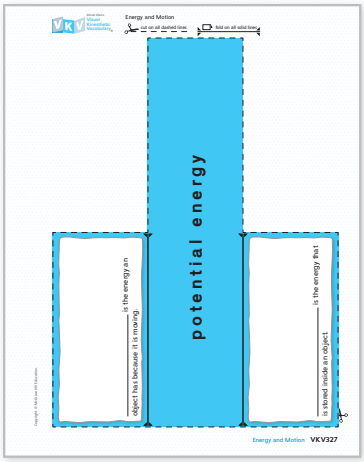
Further the Explanation with Dinah Zike's Foldables® and VKVs

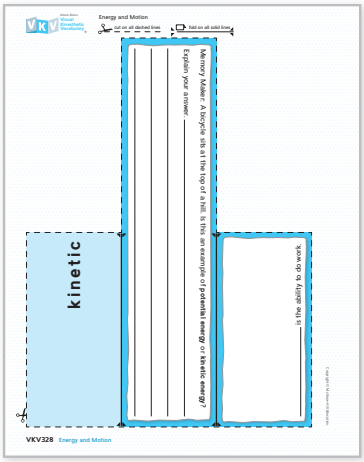
Use Dinah Zike's Notebook Foldables® as a tool to organize important lesson information and Visual Kinesthetic Vocabulary to help students construct meaning and master lesson vocabulary.



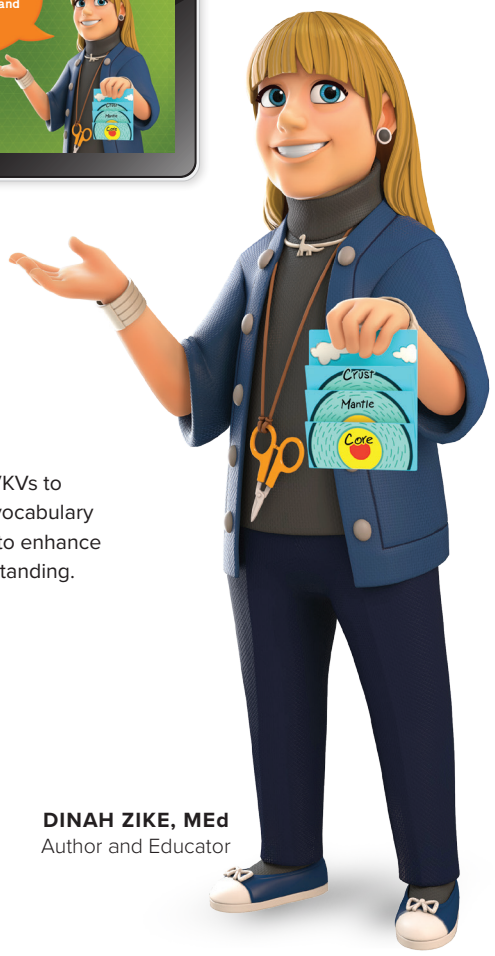
Use Dinah Zike's Notebook Foldables® to organize important lesson information, expand learning, and discuss findings.

Use the Talk About It question to assess students' understanding.





Use Dinah Zike's VKVs to reinforce content vocabulary and key concepts to enhance conceptual understanding.

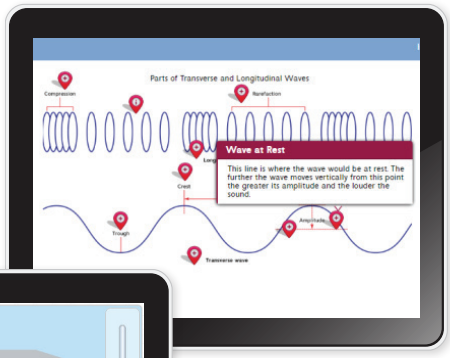


DINAH ZIKE, MEd
Author and Educator

Elaborate

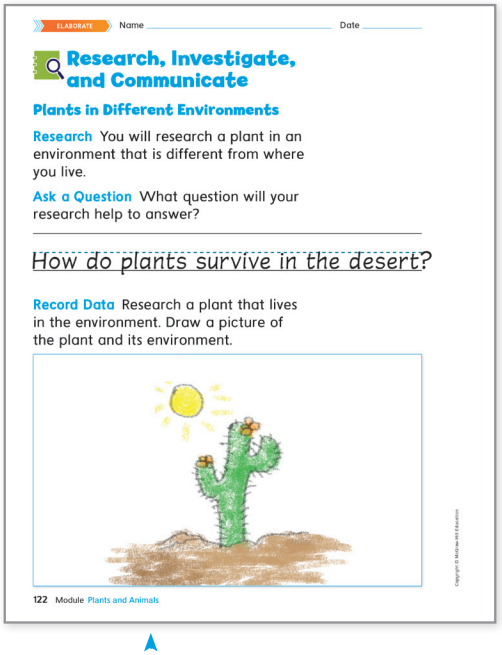
Help your students revise their thinking by reflecting on past answers to see how their judgment has evolved. They will explore new options for further refinement of their understanding through investigations, modeling, research, and communicating with data and evidence.

Students will conduct research and participate in inquiry activities, simulations, interactives, and more to further their understanding and communicate their findings.



The Concord Consortium

We have partnered with The Concord Consortium to create simulations that provide interactive models that would be difficult to replicate in a classroom.



ELABORATE Name _____ Date _____

Research, Investigate, and Communicate

Plants in Different Environments

Research You will research a plant in an environment that is different from where you live.

Ask a Question What question will your research help to answer?

How do plants survive in the desert?

Record Data Research a plant that lives in the environment. Draw a picture of the plant and its environment.

122 Module Plants and Animals

In the Elaborate phase, students expand on what they've learned. In this lesson, students will make another model of a plant, in a new environment.

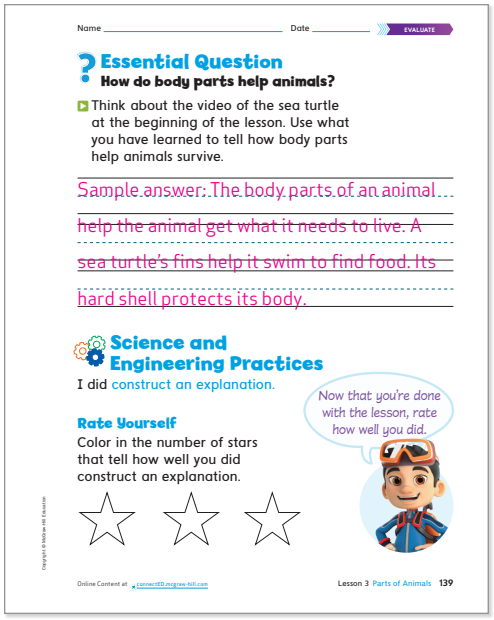
EMILY
Aerospace Engineer

▼ Evaluate

Evaluate

Guide students to demonstrate their understanding of the Essential Question and phenomenon by completing a final performance task, e-Assessment questions, and the "I Did" statements.

Students reflect on the lesson, then rate themselves on their level of content understanding and their proficiency of the Science and Engineering Practices that were targeted in this lesson.



Name _____ Date _____ EVALUATE

Essential Question
How do body parts help animals?

Think about the video of the sea turtle at the beginning of the lesson. Use what you have learned to tell how body parts help animals survive.

Sample answer: The body parts of an animal help the animal get what it needs to live. A sea turtle's fins help it swim to find food. Its hard shell protects its body.

Science and Engineering Practices

I did construct an explanation.

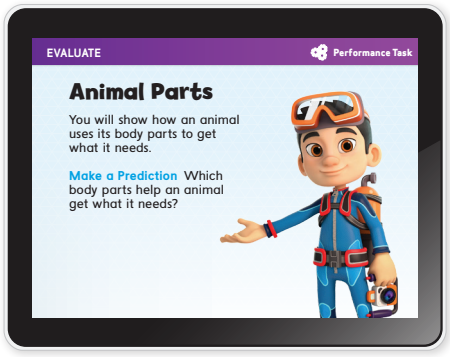
Rate Yourself

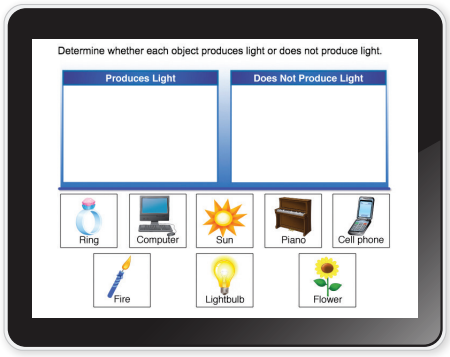
Color in the number of stars that tell how well you did construct an explanation.

Now that you're done with the lesson, rate how well you did.

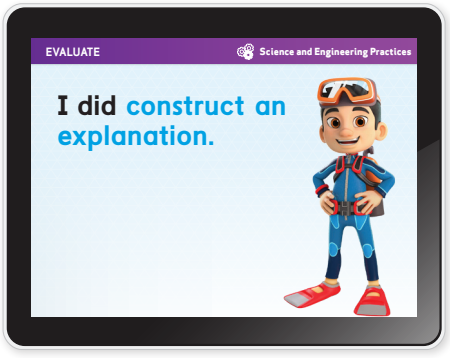
Online Content at connectED.mcgraw-hill.com

Lesson 3 Parts of Animals 139





You can assign ready-made lesson tests, or customize a test to your liking.

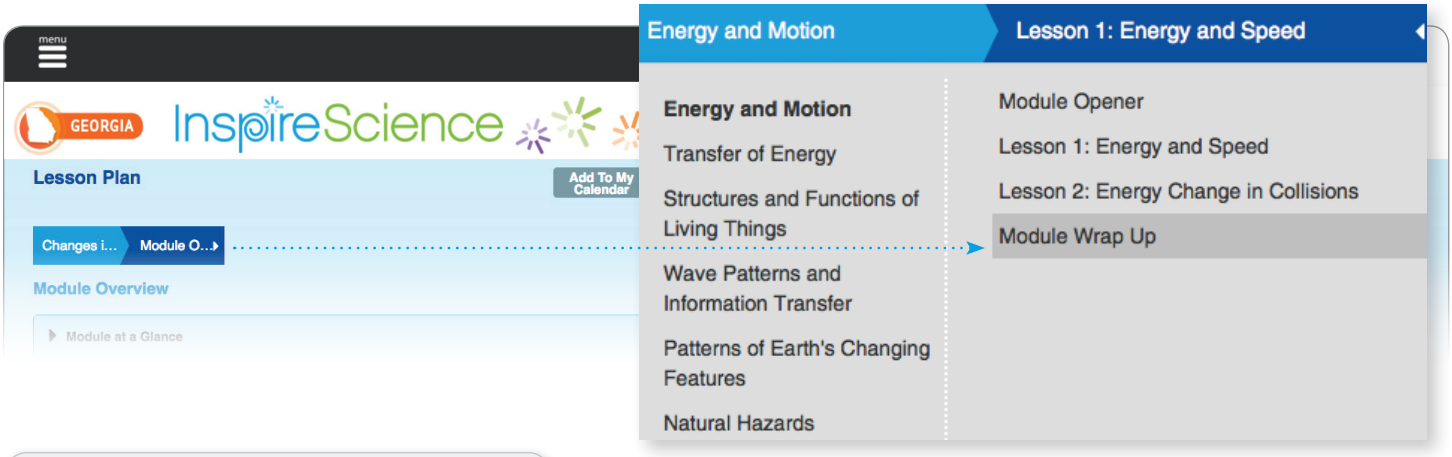


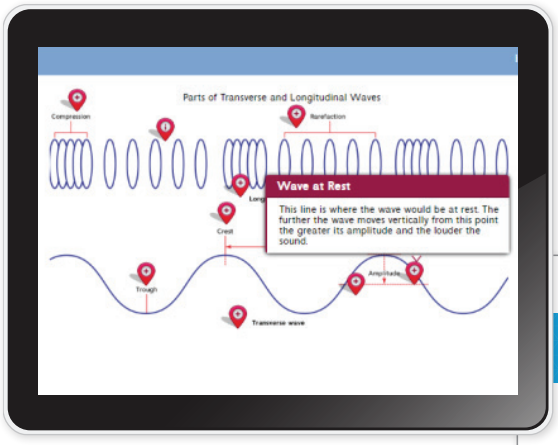
The "I Did" statements allow students to revisit the Science and Engineering Practices.

HIRO
Ocean Engineer

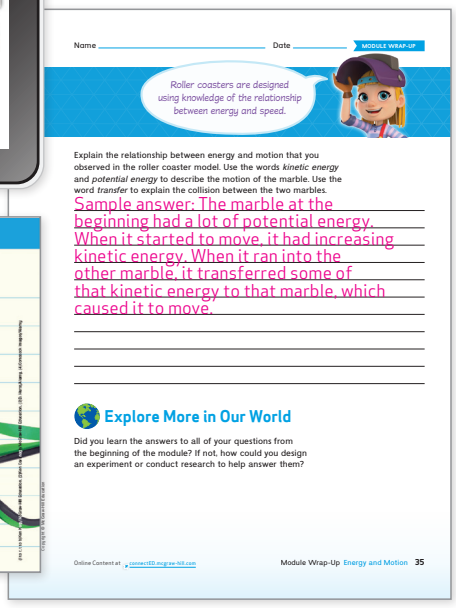
Module Wrap Up

Each module closes with a Performance Project that gives students the opportunity to engage in a design challenge that aligns with the module's content.





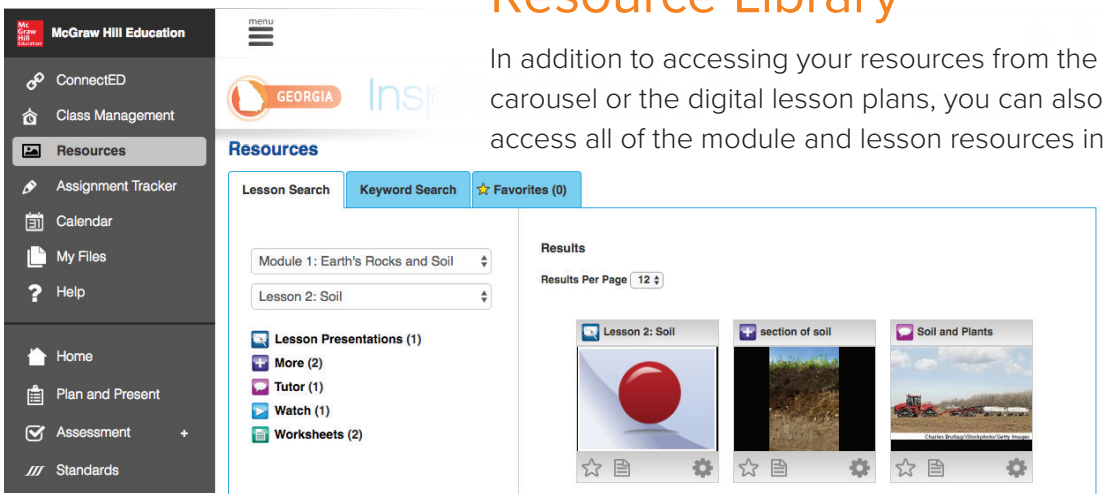
Students will define a problem and complete a performance task where they develop, test and manipulate variables to create a design a solution.

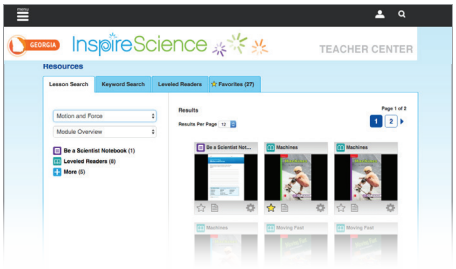


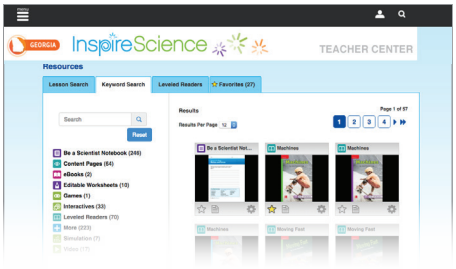
Students will demonstrate their proficiency of the performance expectation by communicating their design solution.

Resource Library

In addition to accessing your resources from the lesson resources carousel or the digital lesson plans, you can also search, preview, and access all of the module and lesson resources in the resource library.







Lesson Search

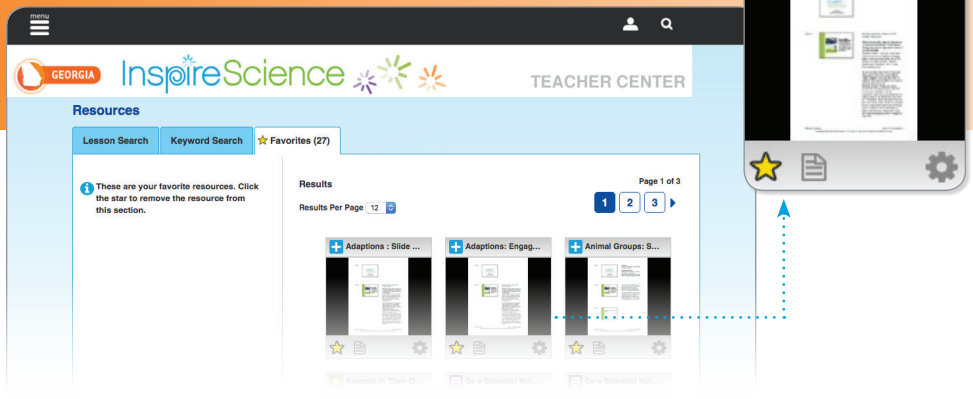
Access program resources including the Be A Scientist Notebook, Science Handbook (Grades 3-5, in English and Spanish), and Teacher's Edition PDFs by module and lesson.

Keyword Search

Refine resource searches with a simple keyword search or by selecting a resource type.

Favorites

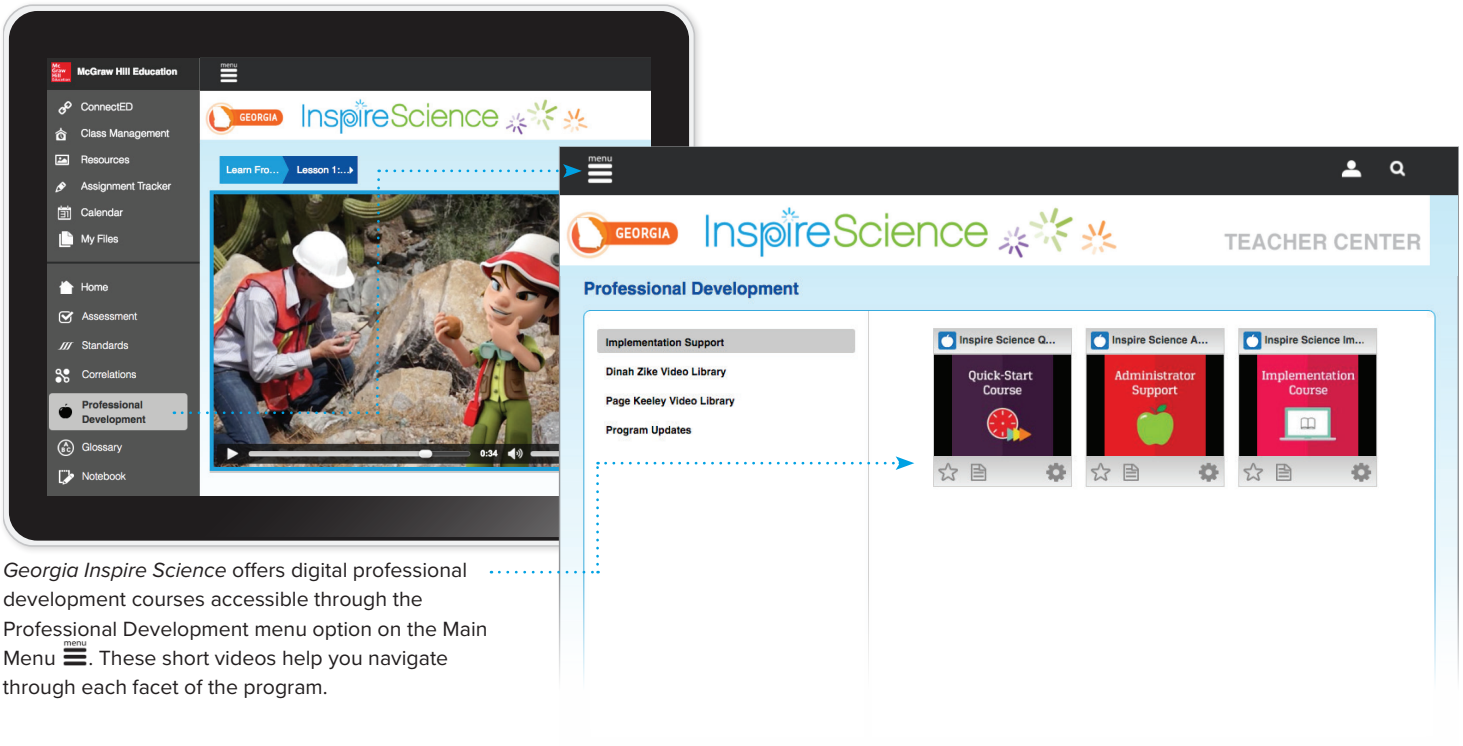
You can easily make any resource a "favorite" from anywhere in the digital experience and access it from the favorites tab within the resource library.



MALIK
Photonics Engineer

Professional Development Support

Georgia 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!



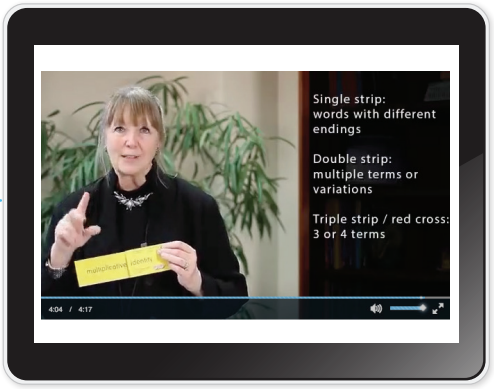
Georgia Inspire Science offers digital professional development courses accessible through the Professional Development menu option on the Main Menu menu. These short videos help you navigate through each facet of the program.

Page Keeley Video Library

You'll love the techniques Page Keeley, MEd shares in these videos for how to get the most out of your science probes.

Dinah Zike Video Library

Dinah Zike, MEd demonstrates how to effectively incorporate the use of her VKVs® and Foldables®, designed to provide visual and kinesthetic vocabulary support to challenging science content.



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