



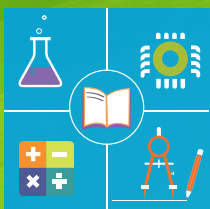
Inspire Science

User-Friendly • 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. *Florida 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. *Florida 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.



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



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



Prepare students for a future full of STEM opportunities.

Hi, my name is Chloe. I am one of the twenty-six **Florida 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

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

Interactive Whiteboard and Mobile Friendly

DIGITAL

DIGITAL TEACHER CENTER



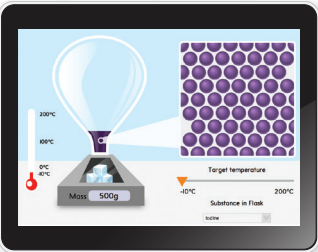
DIGITAL STUDENT CENTER



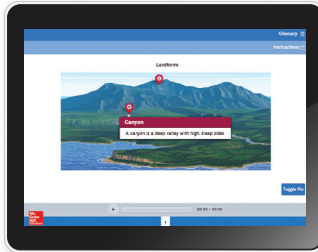
READY-TO-GO LESSON PRESENTATIONS



SIMULATIONS



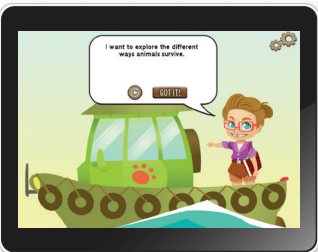
INTERACTIVES



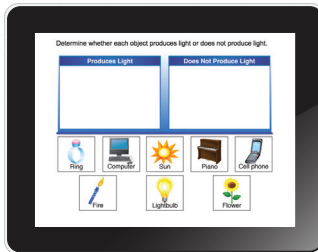
SCIENCE SONGS



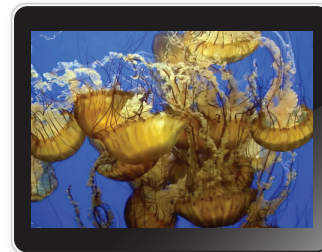
GAMES



eASSESSMENT



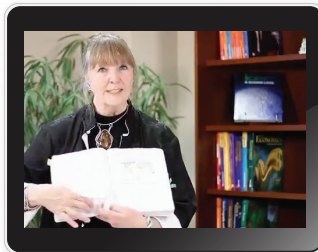
VIDEOS



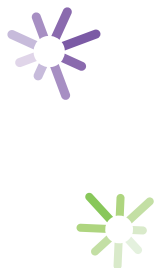
PROFESSIONAL DEVELOPMENT



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)

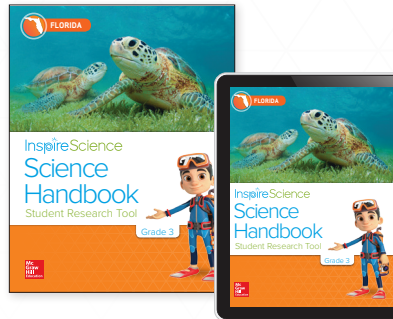
Available in Spanish



SCIENCE HANDBOOK

(Grades 1-5)

Available in Spanish



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

PHYSICAL

LAB KITS

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



GRACE
Computer Programmer



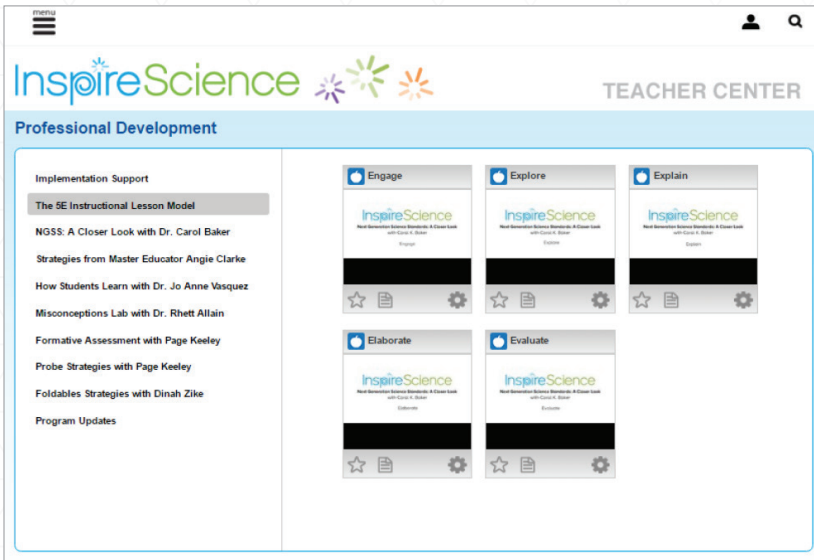
User-Friendly Lesson Structure

Florida 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.

Each Florida Inspire Science lesson begins with a Page Keeley Formative Assessment Probe.



PAGE KEELEY, M.ED.



Key Steps to Lesson Success

Learning Progression



ASSESS LESSON READINESS

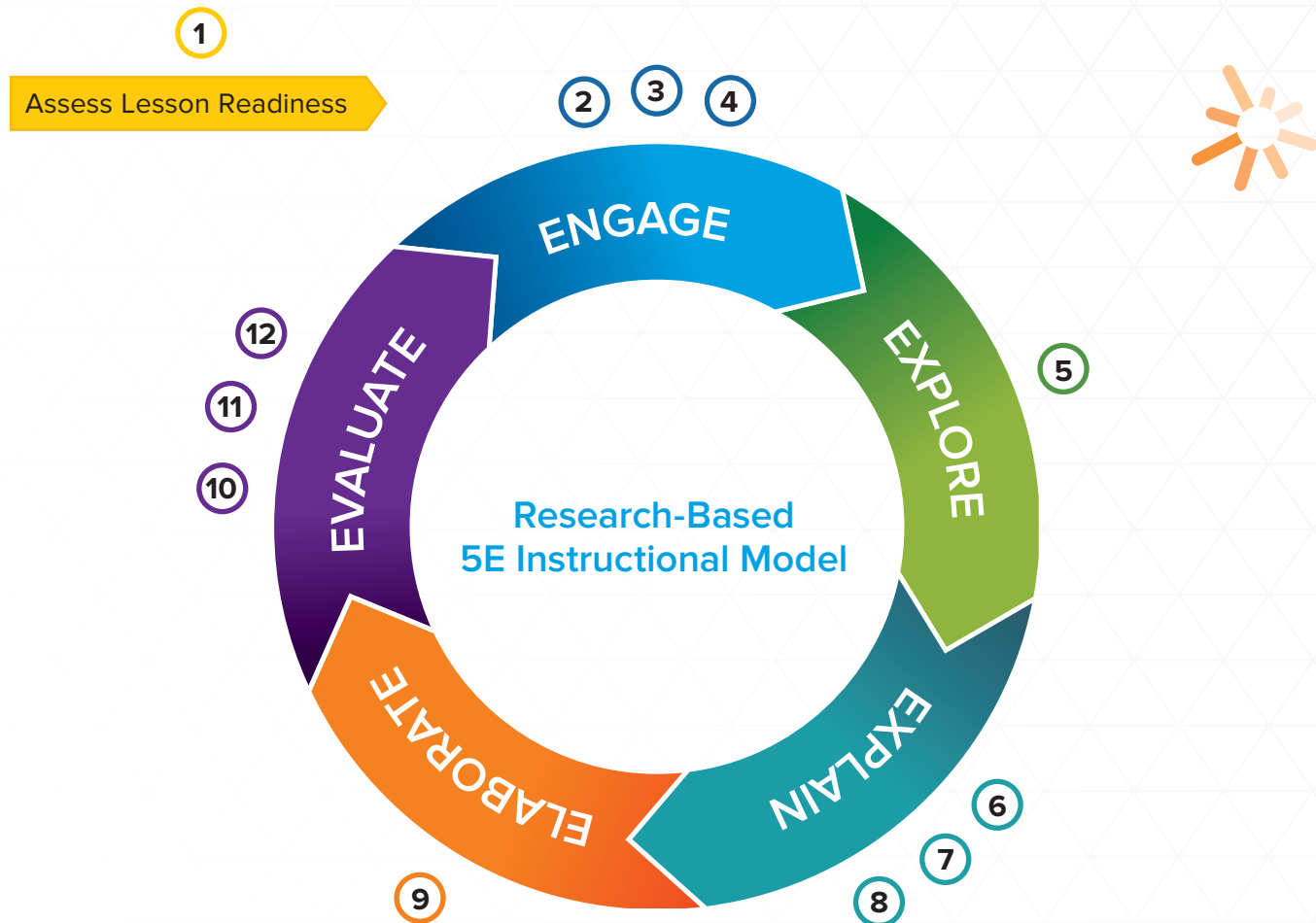
ENGAGE

EXPLORE

- 1 Page Keeley Science Probes

- 2 Science in Our World
- 3 Essential Question
- 4 The Nature of Science

- 5 Inquiry Activity




 I Can

 I Did

EXPLAIN


ELABORATE

EVALUATE

 Obtain and Communicate Information

 Reflect and Refine

 The Nature of Science

 Research, Investigate, and Communicate

 Performance Task

 Essential Question

 The Nature of Science



Approximate Pacing

(based on 45-minute teaching blocks)

Module = 1 month of instruction

Lesson = 8-10 days of instruction

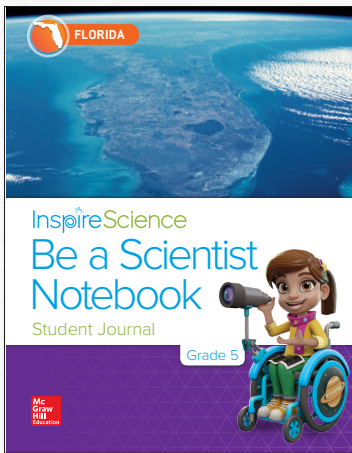
 Fast Track = 4-6 days of instruction



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

Florida 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.



Florida
Name _____ Date _____

Performance Task

Galapagos Finches

A zoologist needs to understand how the organisms' traits help them survive in their environments. You will study the Galapagos finches and use what you learned in the lesson to explain how their adaptations help them survive.

Research Variation of Traits on the different adaptations of the Galapagos finches. Answer the questions after you have finished watching.

Ask a Question Write a question about the Galapagos finches that you would like to answer with your research.

Be like a field biologist and study how the adaptations of Galapagos finches help them survive in their environment.

Communicate Information

1. **Construct an Explanation:** Why do the finches have different adaptations?

2. **Draw Conclusions:** Would the adaptations of the ground finch help the tree finch survive? What would happen to a tree finch that was gray?

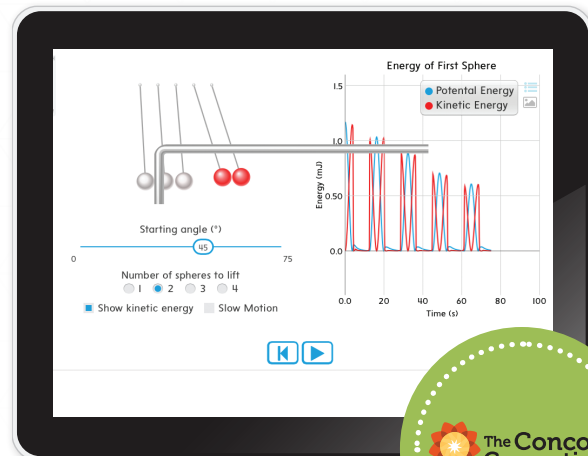
	Habitat	Food Source	Adaptations
Tree Finch			
Woodpecker Finch			
Warbler Finch			
Ground Finch			

84 Module Diversity of Living Things

HANDS-ON LEARNING



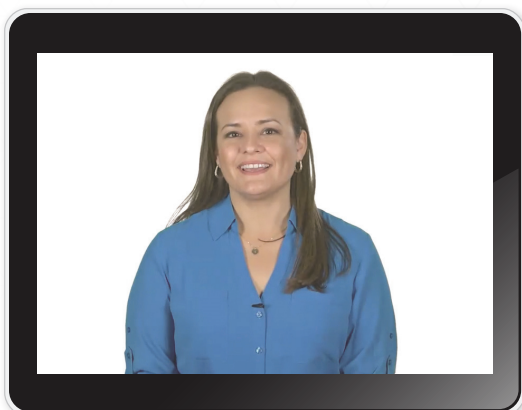
GAME-BASED LEARNING Filament Games creates digital learning games and interactives designed to foster 21st-century skills through experiential learning. Florida Inspire Science has partnered with Filament Games to create game-based learning that enables students to “play” with the lesson concepts to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



SIMULATIONS The Florida 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.

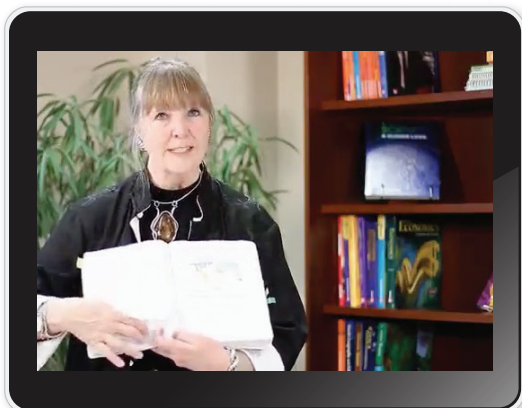
User-Friendly Support

Florida 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!



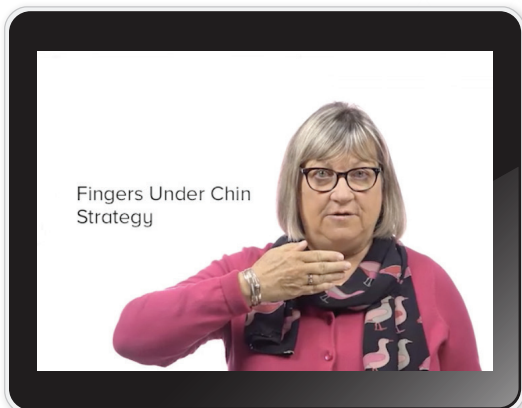
PROFESSIONAL DEVELOPMENT

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



DINAH ZIKE, M.ED. VKV® AND FOLDABLES®

- Classroom Models
- Coaching
- Demonstration Videos



Fingers Under Chin
Strategy

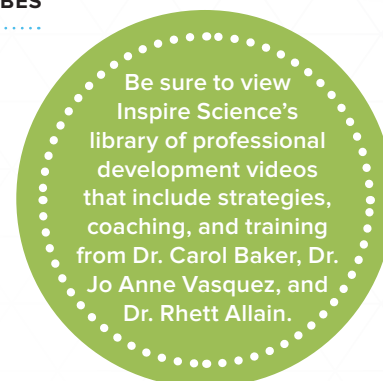


PAGE KEELEY, M.ED. FORMATIVE ASSESSMENT PROBES

- Classroom Models
- Coaching
- Teaching Techniques for
Science Probes



RILEY
Automotive Engineer



Be sure to view Inspire Science's library of professional development videos that include strategies, coaching, and training from Dr. Carol Baker, Dr. Jo Anne Vasquez, and Dr. Rhett Allain.

Key Shifts for STEM Advancement

With every year comes increased growth in Science, Technology, Engineering, and Math (STEM) career opportunities and a widening “STEM Gap” (more jobs than qualified candidates). As educators, we have an amazing opportunity to help close this gap and better prepare students for STEM careers by shifting to a more in-depth, collaborative, and project-based learning approach that blends knowledge with skills and places a priority on curiosity, problem solving, and communication.



Authentic STEM Learning

Students will actively engage in learning experiences that are driven by exploration and discovery. The seamless integrating of the engineering practices and the creative use of technology will enhance learning and accelerate students’ depth of knowledge.

TRADITIONAL APPROACH

Wide Range of Topics, Shallow Topic Exploration



FLORIDA INSPIRE SCIENCE STEM PROGRAM

In-Depth Topic Exploration



Application Over Memorization

Florida Inspire Science students will build long-lasting knowledge and skills by experiencing science and engineering in a more meaningful, application-oriented way.





Collaboration and Communication

Key to the success of any science or engineering innovation is the ability for the inventors to work well in groups and clearly communicate their ideas with support from data and evidence. Florida Inspire Science students will have abundant opportunities for group collaboration and communication.



Preparing for Future STEM Opportunities

Advancements in today's technology has created new and exciting careers and ever-changing STEM opportunities.

Comprehensive instructional practices and integrated 21st century skills prepare all students to use science, technology, engineering, and math to drive innovation and be competitive in future STEM occupations.



Cross-Curricular Connections

Florida 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.

- Using technology to enhance learning
- Asking Questions and Defining Problems
- Creating and Modifying Models
- Planning and Carrying Out Investigations
- Analyzing and Interpreting Data
- Using Mathematics and Computational Thinking
- Constructing Explanations
- Designing Solutions
- Engaging in Argument from Evidence
- Obtaining, Evaluating, and Communicating Information
- Driving innovation

Performance Task
Bird Beak Adaptations

How does beak shape affect a bird? You will observe how birds with different types of beaks gather food by creating a model of the beaks. Read the investigation before you make a prediction.

Make a Prediction How does the shape of a bird's beak affect the type of food it eats?
Sample answer: Certain bird beaks pick up certain types of foods easier than others.

Carry Out an Investigation

- Collect a plastic spoon, tweezers, a binder clip, and a pair of scissors. These will represent the bird beak.
- Place four cardboard box lids in front of you. Fill each lid with one of the following: paper clips, rubber bands, toothpicks, and dried macaroni. These will represent bird food.
- Hold a plastic cup in one of your hands and one of the bird beak models in the other hand. The plastic cup will represent a bird's stomach.
- Your teacher will set a timer for 20 seconds. When the timer starts, use one bird beak model to collect as much of one type of food as possible. Collect food by using the beak to move the food into the cup.
- Record Data** Count the amount of food you were able to collect.

Materials

- plastic spoon
- tweezers
- large binder clip
- scissors
- cardboard box lid or trays
- paper clips
- rubber bands
- toothpicks
- dried macaroni
- plastic cups

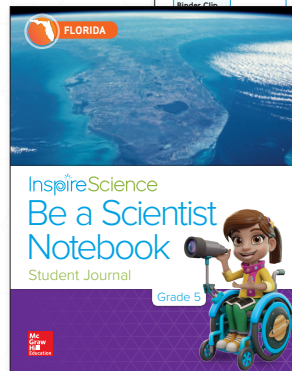
Amount of Food Collected

Model Beak	Paper Clips	Rubber Bands	Toothpicks	Macaroni
Spoon				
Tweezers				
Binder Clip				

Which beak worked best for each type of food?
Sample answer: The spoon worked the best for paper clips, the binder clip worked best for the scissors, worked best for the tweezers worked best, they were able to squeeze

What are the functions of animal structures?
Sample answer: An elephant uses its trunk to gather food or water and then it puts the trunk in its mouth to eat or drink.

The Nature of Science
Sample answer: define a problem by studying and comparing the structures that animals use to survive.



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

Look at the graph to see how the fish population changed last year.

How many boats do you want to send this year?

1 2 3

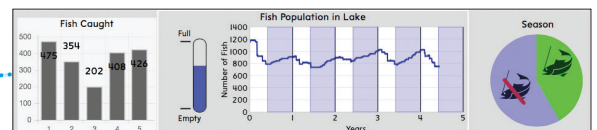
Five years are over!

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

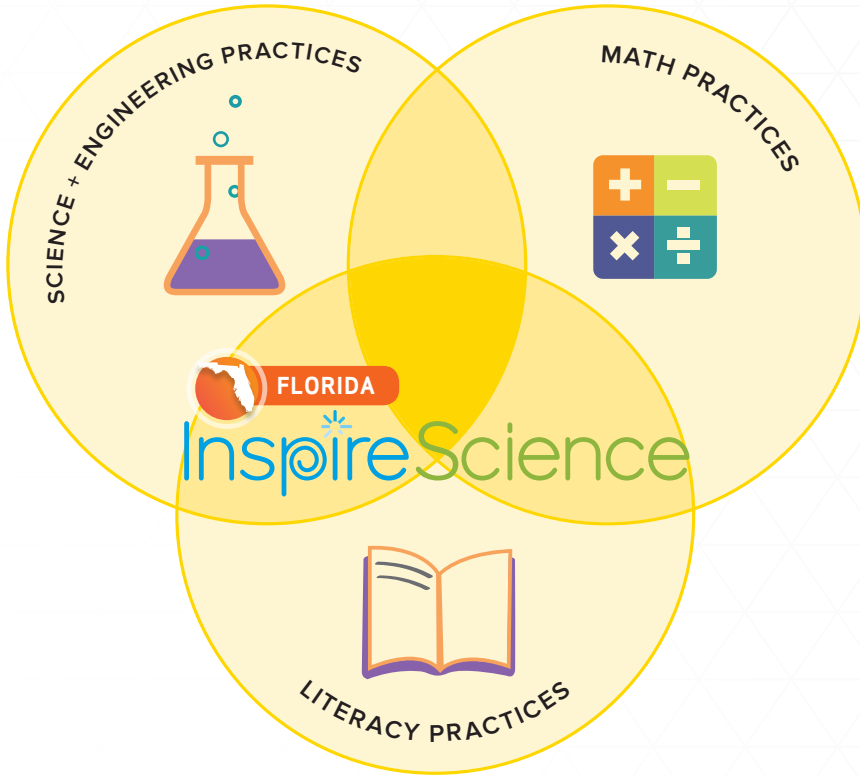
Did you have any trouble catching fish any year?

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 *Florida 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

Introduction
Are You Eye-Wise?

Eyes are like cameras because they take pictures of the world all around. They send these pictures to the brain. The brain uses the information from the eyes to understand the world.

The Eyes You See

When you look at your eyes in a mirror, you can see these parts:

- Eye Socket** Your eyeballs sit in empty spaces in your skull called eye sockets.
- Eyelids** Your eyelids blink to keep your eyeballs clean, moist, and protected.
- Sclera** The sclera is the white part of your eye.
- Iris and Cornea** The **iris** is the colored part of your eye. The **cornea** covers the iris. The cornea lets light enter.
- Pupil** The **pupil** gets bigger and smaller to let in the light you need in order to see.

The Eye Inside

Your eyes have many parts you cannot see.

- Retina** The **retina** has cells called rods and cones. Rods help you see black, white, and gray while cones help you see other colors.
- Lens** A clear eye **lens** is behind each iris. The lens collects light and then moves it back to the retina.
- Nerve Path** The rods and cones of the retina change all the shapes and colors you see into nerve messages. The nerve messages travel along nerve paths to the brain. Your brain reads these messages, and then you can tell what you are seeing.

Respond to Reading

Summarize

Use important details to summarize *The Way Eyes See It*. Your graphic organizer may help you.

Text Evidence

1. How do you know that *The Way Eyes See It* is a nonfiction text? Identify the text features that tell you this. **COMPARE**
2. Read the book again with a partner. Make a Venn diagram to compare human eyes with the eyes of one animal described in the book. **COMPARE AND CONTRAST**
3. What is the meaning of the word *pupil* on page 27? What is another meaning for the word *pupil*? What clues in the text show you which meaning to use on page 27? **ONOMATOPOEY**
4. Find out more about the human eye. Use a Venn diagram to compare two parts of the human eye. Write a paragraph to describe how these parts are similar and how they are different. **WRITE ABOUT READING**



LEVELED READERS

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

Preparing Tomorrow's 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. *Florida 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 *Florida 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 *Florida Inspire Science's* problem-based learning components.

MODULE WRAP-UP Name _____ Date _____

Florida Plants and Animals

Performance Project
Observing Life Cycles

You will observe the growth and life cycle of an organism.
Make a Prediction Which stages of the organism's life cycle will you observe?
Sample answer: I will observe the seed germinate, grow into a seedling, grow into an adult plant, produce a flower, and reproduce by producing a seed.

Carry Out an Investigation

- Choose one of the following: mealworm, cricket, green bean plant, or pine tree.
- Plan an investigation to observe the life cycle of your organism. Record your plan below.
Students should record their plan to observe the life cycle of their organism.

60 Module Wrap-Up Florida Plants and Animals

Name _____ Date _____

How do living things develop as they grow?

Record Data Observe the life cycle of your organism. Complete the table below with your observations.

Part of life cycle	Observations
seed	Sample answer: The seed starts to split as the plant inside starts to grow.
seedling	Sample answer: The seedling broke out of the seed case.
young plant	Sample answer: The young plant started to grow leaves.
adult plant	Sample answer: The stem of the adult plant started to get harder and darker.

Communicate Information

Prepare a presentation to share your results. Include the following:

- a diagram of your animal or plant's life cycle
- drawings or photos of your organism as it went through these stages
- a description of what biome your organism lives in
- an explanation of why your organism would find it hard to survive in a different biome

Share your presentation to your classmates.

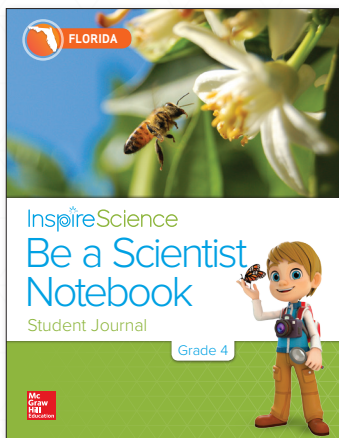
Explore More in Our World

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?

61 Module Wrap-Up Florida Plants and Animals



JORDAN
Animal Trainer

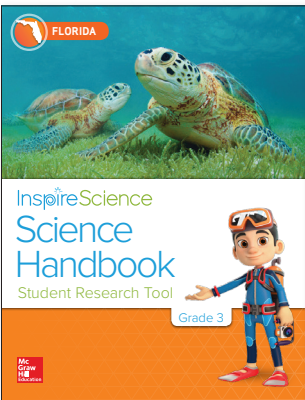
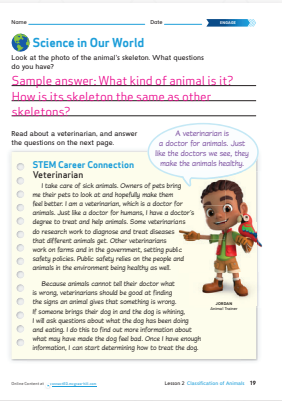
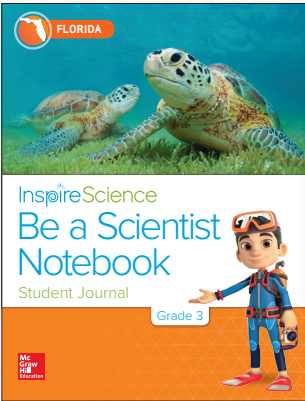


PERFORMANCE PROJECT
Students will apply their learning with a performance projects at the close of every module.





Career-Based Learning



Watch **STEM Career Kid Videos** at Inspire-Science.com/career_kids

RUBY
Veterinarian



CAREER CONNECTION
Interested in helping animals? Veterinarians are doctors for pets and other animals. Veterinarians learn about how the bodies of animals function to help them remain healthy.

Expose students to real-life STEM careers to build knowledge and create excitement about future careers in science, technology, engineering, and math.

ENGAGE

STEM Career Connection Veterinarian

Veterinarians are scientists who use their knowledge of animal structures and functions to help them prevent, identify, and treat problems animals may have with their health.



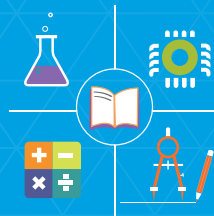
ePresentations help cool STEM careers come to life in the classroom.





InspireScience

USER-FRIENDLY • CONNECTED • INSPIRING



To explore
further, visit
[mheducation.com/
prek12Florida](http://mheducation.com/prek12Florida)