Mc Graw Hill

FLORIDA Science

PROGRAM OVERVIEW

BIOLOGY & CHEMISTRY

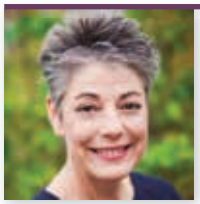
Unlimited Potential

McGraw Hill Florida Science was built to empower students to ask questions, pose hypotheses, conduct hands-on investigations, and communicate their findings.

Drawing on feedback from Florida teachers, we set forth to create a program where inquiry lays the foundation for deep understanding of science, where a spirit of discovery improves students' reading and writing skills, and where the ultimate goal is Florida State Academic Standards for Science (FSAS) mastery and a lifelong love of learning.

Guided by Experts

Our author collection is made up of experts committed to engaging students throughout their learning experience:

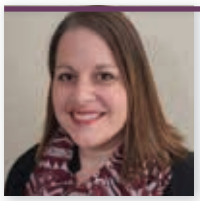


Julie Jackson, Ph.D.

Creator of Interactive Word Walls, Dr. Jackson draws on expertise in vocabulary, language acquisition, and the FSAS to facilitate student understanding and acquisition of science vocabulary.

Dinah Zike

Creator of NEW! Foldables and interactive notebooking, Dinah Zike focuses on helping students understand difficult new concepts and facilitating engagement.



Cindy Guerrero, Ph.D.

Dr. Guererro utilizes her expertise in English-language development to maximize the program's support for English Language Learners.

Science Bob (Bob Pflugfelder)

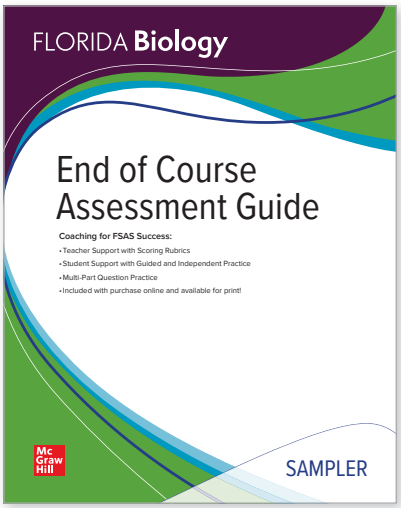
With a vast social media following numbering in the hundreds of thousands, hyper-engaging science teacher Science Bob specializes in creating experiments and demos beyond the limits of the everyday classroom.

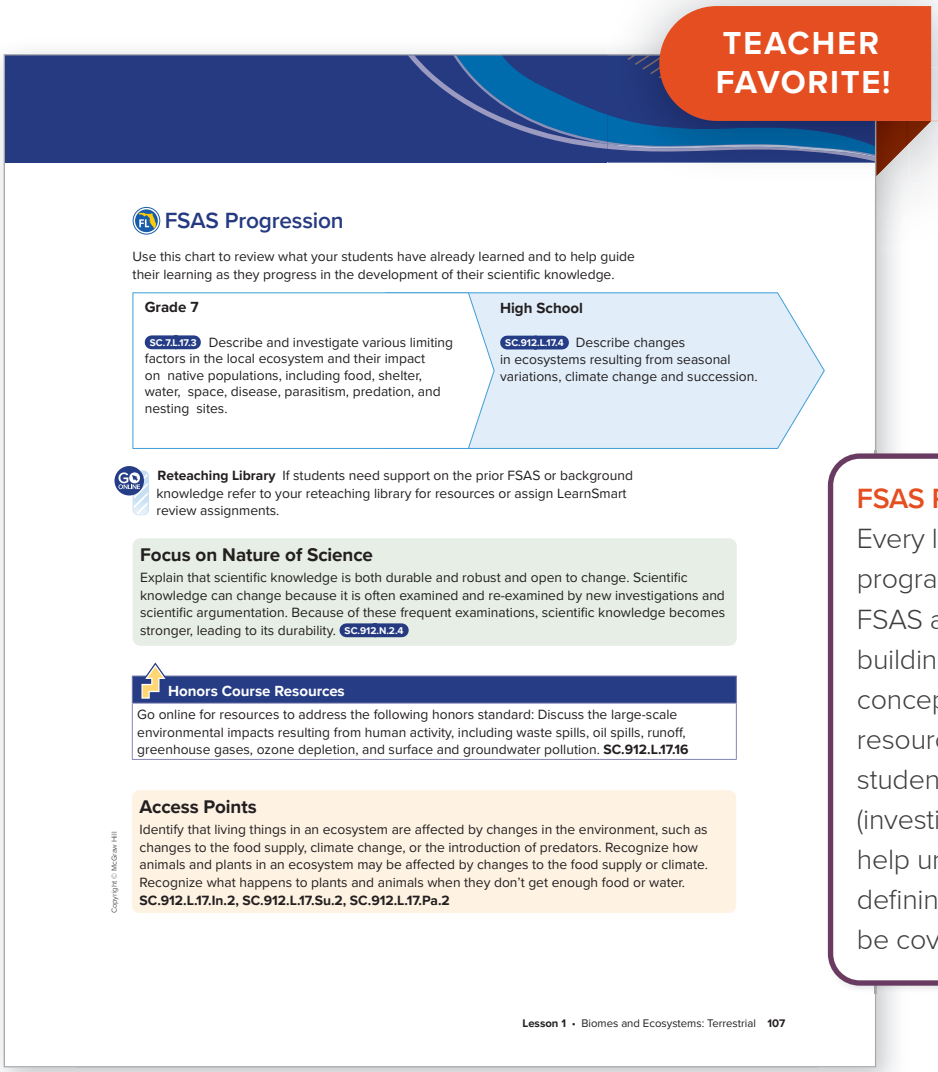
A Program Built for the FSAS

Explicitly designed for the FSAS standards and the modern Florida science classroom, *McGraw Hill Florida Science* combines the FSAS with feedback from our most trusted collaborators—Florida teachers and administrators—and offers the tools to help every student achieve success in science.

FSAS Assessment Guide

Online and printable guided practice tests help students prepare for state assessments. Each practice test includes rigorous, high-level thinking questions and answers so students can check their work.





FSAS Progression Breakdown

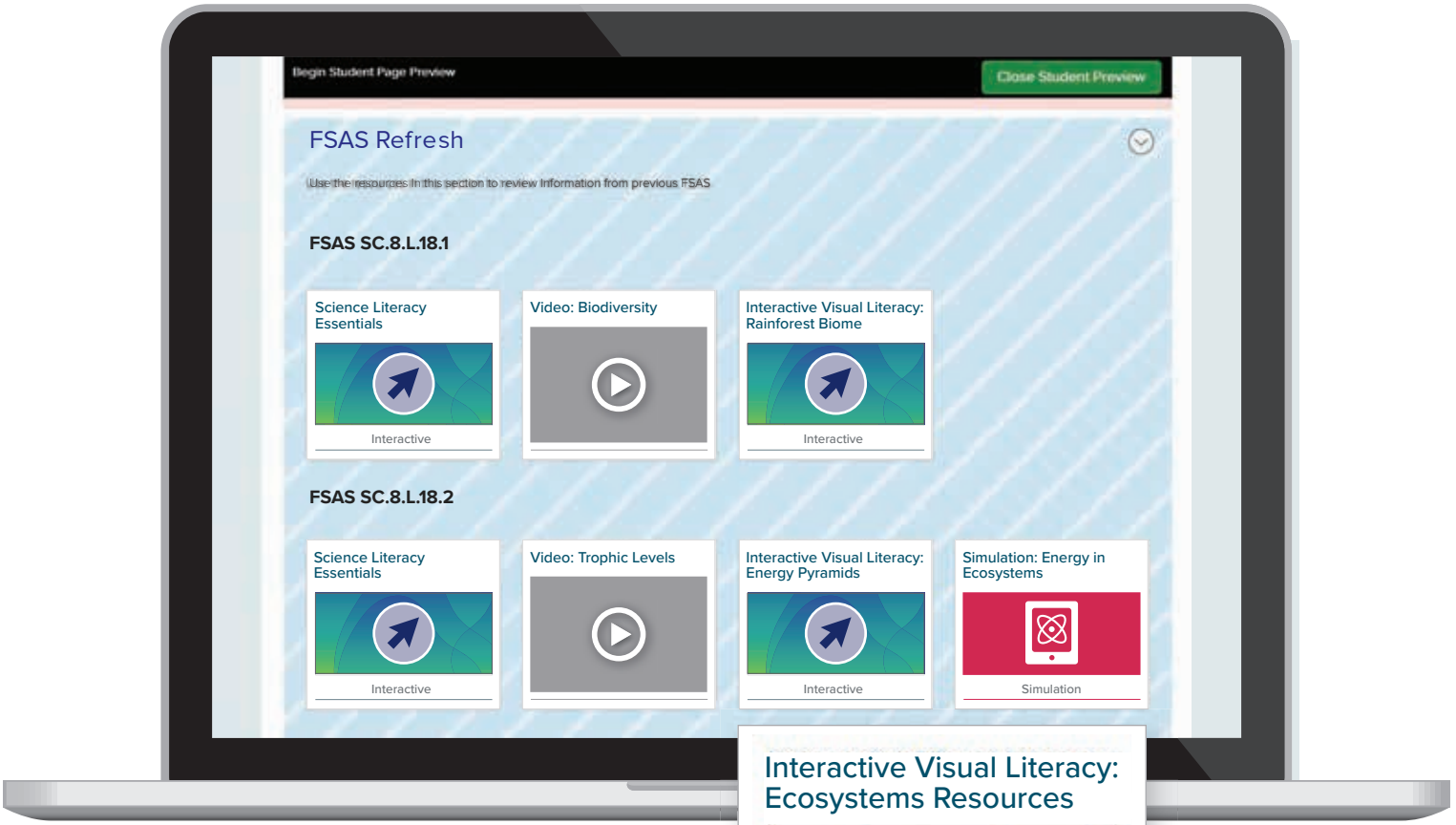
Every lesson in the *Florida Science* program begins by using prerequisite FSAS as a launch pad—seamlessly building up to the lesson-level FSAS concepts. Each lesson comes with resources to pre-assess and remediate students as needed. Cognitive verbs (investigate, distinguish, evaluate, etc.) help unpack complex concepts, clearly defining the extent to which topics must be covered to meet each standard.

Personalized Learning

FSAS Refresh

After conducting pre-assessments, teachers can assign FSAS Refresh activities to students who need them, ensuring they understand and remember content from middle school before diving into new material.

- **Before covering a Biology or Chemistry standard, teachers can assign content from previously covered standards from middle school.**



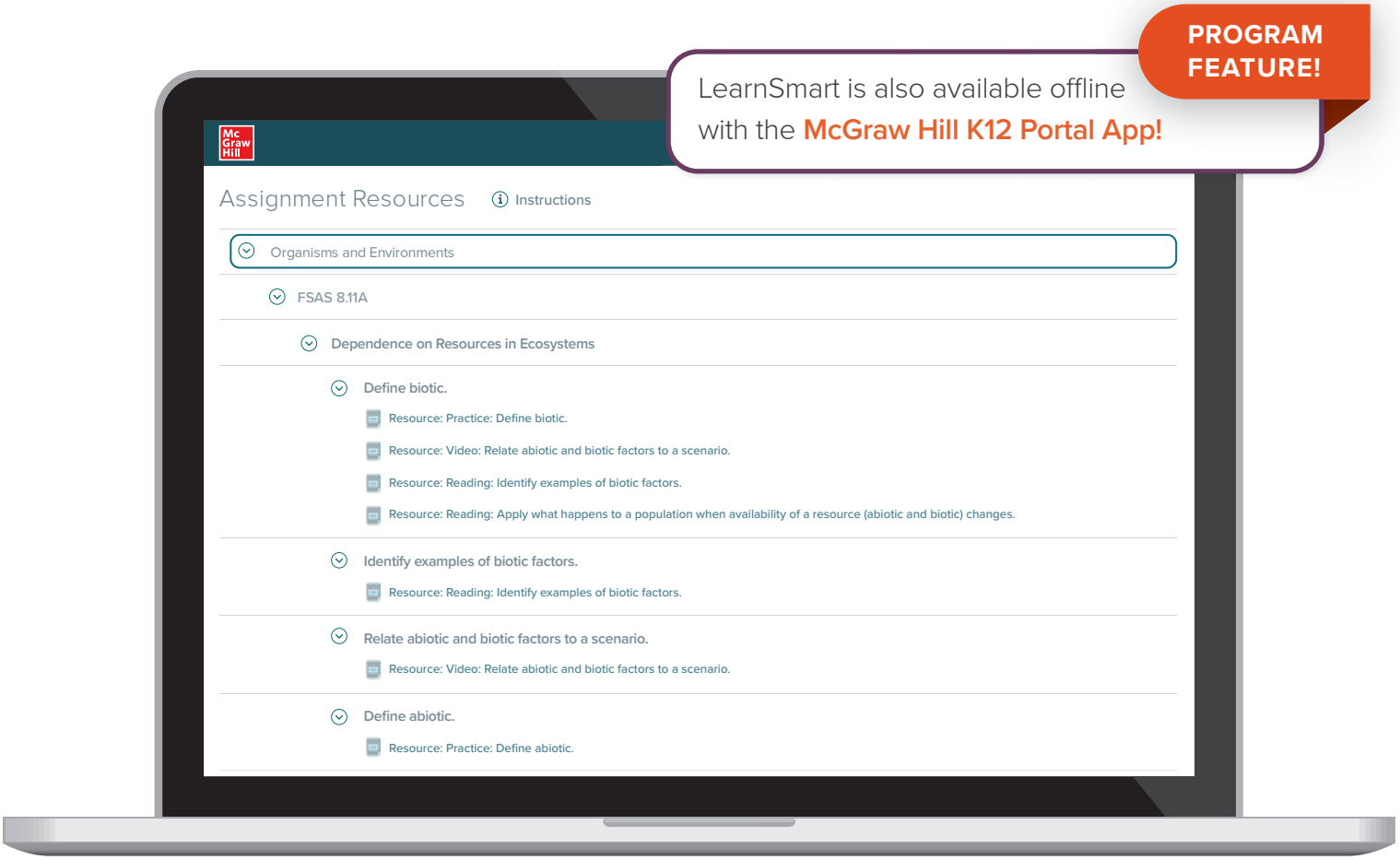
Students can choose from a variety of assets from previous grade levels to reinforce previously learned ideas.

LearnSmart®

Each student enters the classroom with different strengths, interests, and abilities. Eliminate guesswork and get to the heart of their learning needs with adaptive, comprehensive differentiation.

LearnSmart uses smart, adaptive technology and multiple-choice questions to help gauge student understanding. To ensure end-of-course assessment success, LearnSmart focuses solely on questions covering the FSAS.

Teachers can assign LearnSmart questions tailored to individual FSAS standards, ensuring students master the content needed.



When students answer a question incorrectly, they can access built-in supports to review relevant material in different formats:

- **Short and focused texts, articles, and examples**
- **Lesson Opener Videos, Content Videos, Science Videos, and more**
- **Quick interactives and manipulatives**

Optimized for Teachers and Supervisors

Structured for flexibility, *Florida Science* allows teachers and supervisors to follow a recommended lesson path or adapt instruction as needed. Whichever you choose, you can feel confident your students are getting a comprehensive science education aligned to the FSAS.

PROGRAM FEATURE!

Resource Overviews in every chapter and lesson can help curriculum writers recommend specific resources to cover the FSAS.

Chapter Digital Resources

Go online to access and assign these online resources.

Core Resources
Student eBook | LearnSmart™ | Science Literacy Essentials | Presentation Slides | Teacher eBook

	VIDEOS & INTERACTIVES	LABS*	ASSIGNMENTS	ASSESSMENTS
CHAPTER 3	**Video:** Biomes, Ecosystems, and Communities	**Launch Lab:** What's my biological address? **BioLab:** How does your biome grow?	**STEM Project:** Design a Rooftop Garden	**Chapter Pre-Test** (F) **Science Probe** (F) **Chapter Review** (F) **Vocabulary Test** (S) **Chapter Test** (S)
LESSON 1	**Video:** Biomes and Ecosystems: Terrestrial **Interactive Visual Literacy:** Biomes and Ecosystems: Terrestrial		**CER:** Biomes and Ecosystems: Terrestrial	**Exit Tickets** (F) **Lesson Quiz** (S)
LESSON 2	**Interactive Visual Literacy:** Lakes and Ponds; Wetlands; Open Ocean	**Simulation:** Marine Ecosystems **Quick Lab:** Prepare a Scientific Argument **BioLab:** Pond in a Jar	**CER:** Biomes and Ecosystems: Aquatic	**Exit Tickets** (F) **Lesson Quiz** (S)
LESSON 3	**Video:** Ecological Succession **Interactive Visual Literacy:** Ecological Succession	**Simulation:** Ecological Succession	**CER:** Biological Communities **Applying Practices:** Local Ecosystem Dynamics	**Exit Tickets** (F) **Lesson Quiz** (S)

(F) Formative (S) Summative

*Teacher lab support available online. Student lab documents and assignments available online in flexible formats (including editable Microsoft Word, Google Docs, and online submission).

Pre-Built, Editable Admin Test Banks give a head start to go beyond chapter tests and EOC prep.

All labs are editable so supervisors can manipulate labs to fit best in their classrooms.

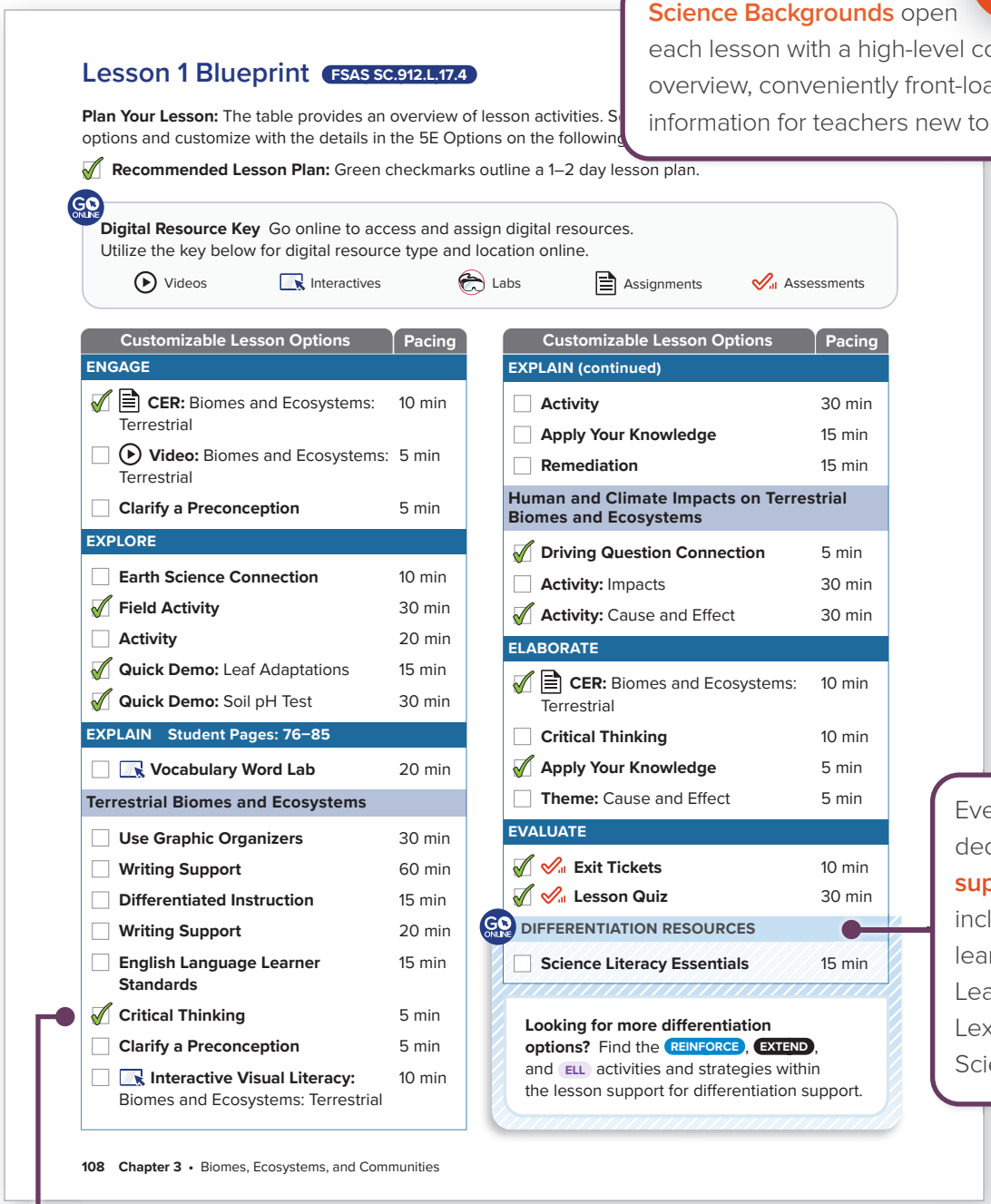
The clear, recommended program pathway ensures FSAS coverage, with the option for teachers to select the content that will best resonate in their classroom.

Inspiring New Teacher Confidence

Built to support the influx of new teachers across the state, *Florida Science* provides a clear path to cover the FSAS. Supports throughout the Teacher's Edition deliver additional tools to ensure teacher success and student content mastery.

PROGRAM FEATURE!

Science Backgrounds open each lesson with a high-level content overview, conveniently front-loading the information for teachers new to the topic.



Lesson 1 Blueprint FSAS SC.912.L.17.4

Plan Your Lesson: The table provides an overview of lesson activities. S
options and customize with the details in the 5E Options on the following

Recommended Lesson Plan: Green checkmarks outline a 1–2 day lesson plan.

Digital Resource Key Go online to access and assign digital resources.
Utilize the key below for digital resource type and location online.

Videos | Interactives | Labs | Assignments | Assessments

Customizable Lesson Options	Pacing
ENGAGE	
✓ **CER:** Biomes and Ecosystems: Terrestrial	10 min
☐ **Video:** Biomes and Ecosystems: Terrestrial	5 min
☐ **Clarify a Preconception**	5 min
EXPLORE	
☐ **Earth Science Connection**	10 min
✓ **Field Activity**	30 min
☐ **Activity**	20 min
✓ **Quick Demo:** Leaf Adaptations	15 min
✓ **Quick Demo:** Soil pH Test	30 min
EXPLAIN Student Pages: 76–85	
☐ **Vocabulary Word Lab**	20 min
Terrestrial Biomes and Ecosystems	
☐ **Use Graphic Organizers**	30 min
☐ **Writing Support**	60 min
☐ **Differentiated Instruction**	15 min
☐ **Writing Support**	20 min
☐ **English Language Learner Standards**	15 min
✓ **Critical Thinking**	5 min
☐ **Clarify a Preconception**	5 min
☐ **Interactive Visual Literacy:** Biomes and Ecosystems: Terrestrial	10 min

Customizable Lesson Options	Pacing
EXPLAIN (continued)	
☐ **Activity**	30 min
☐ **Apply Your Knowledge**	15 min
☐ **Remediation**	15 min
Human and Climate Impacts on Terrestrial Biomes and Ecosystems	
✓ **Driving Question Connection**	5 min
☐ **Activity:** Impacts	30 min
✓ **Activity:** Cause and Effect	30 min
ELABORATE	
✓ **CER:** Biomes and Ecosystems: Terrestrial	10 min
☐ **Critical Thinking**	10 min
✓ **Apply Your Knowledge**	5 min
☐ **Theme:** Cause and Effect	5 min
EVALUATE	
✓ **Exit Tickets**	10 min
✓ **Lesson Quiz**	30 min
DIFFERENTIATION RESOURCES	
☐ **Science Literacy Essentials**	15 min

Looking for more differentiation options? Find the REINFORCE, EXTEND, and ELL activities and strategies within the lesson support for differentiation support.

108 **Chapter 3** • Biomes, Ecosystems, and Communities

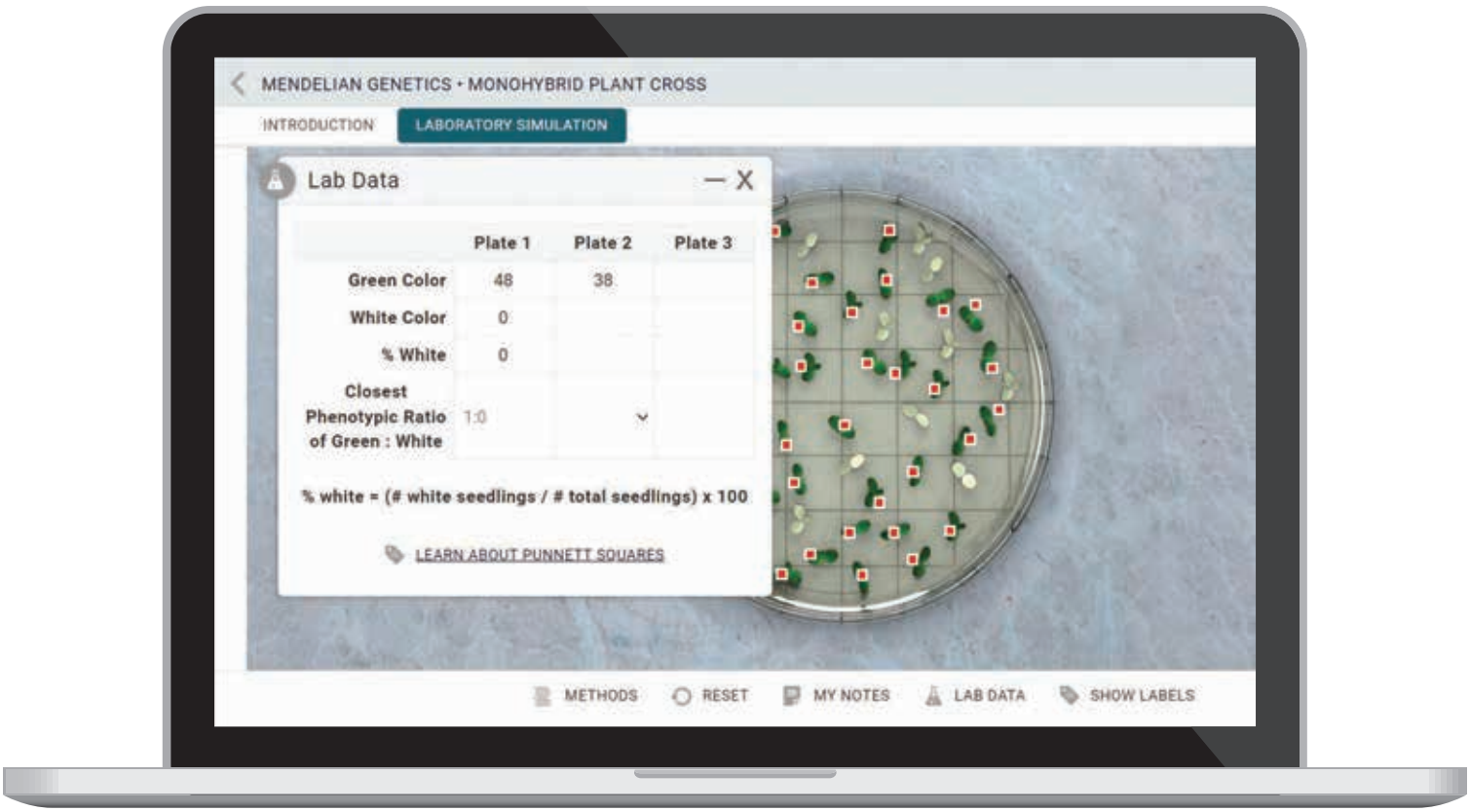
Every lesson contains dedicated **differentiation supports** for teachers, including personalized learning support from LearnSmart and lower Lexile-level content from Science Literacy Essentials.

The Recommended Lesson Plan offers a prescriptive path at the lesson level with checkmarks throughout the planning page to ensure all FSAS topics are covered.

Hands-On Labs, Real-World Investigations

Real scientists get their hands dirty. By conducting hands-on investigations, students can apply their scientific knowledge to exciting real-world contexts. With 100% FSAS-aligned labs, the program prompts every student to dive deep into the lesson content and observe new concepts in action.

- **Claim, Evidence, Reasoning (CER)** writing prompts help students make meaning from their investigation.
- **STEM Projects** aligned to each strand of the multi-dimensional learning model allow students to apply their creative design solutions to science and engineering challenges and investigate their world.



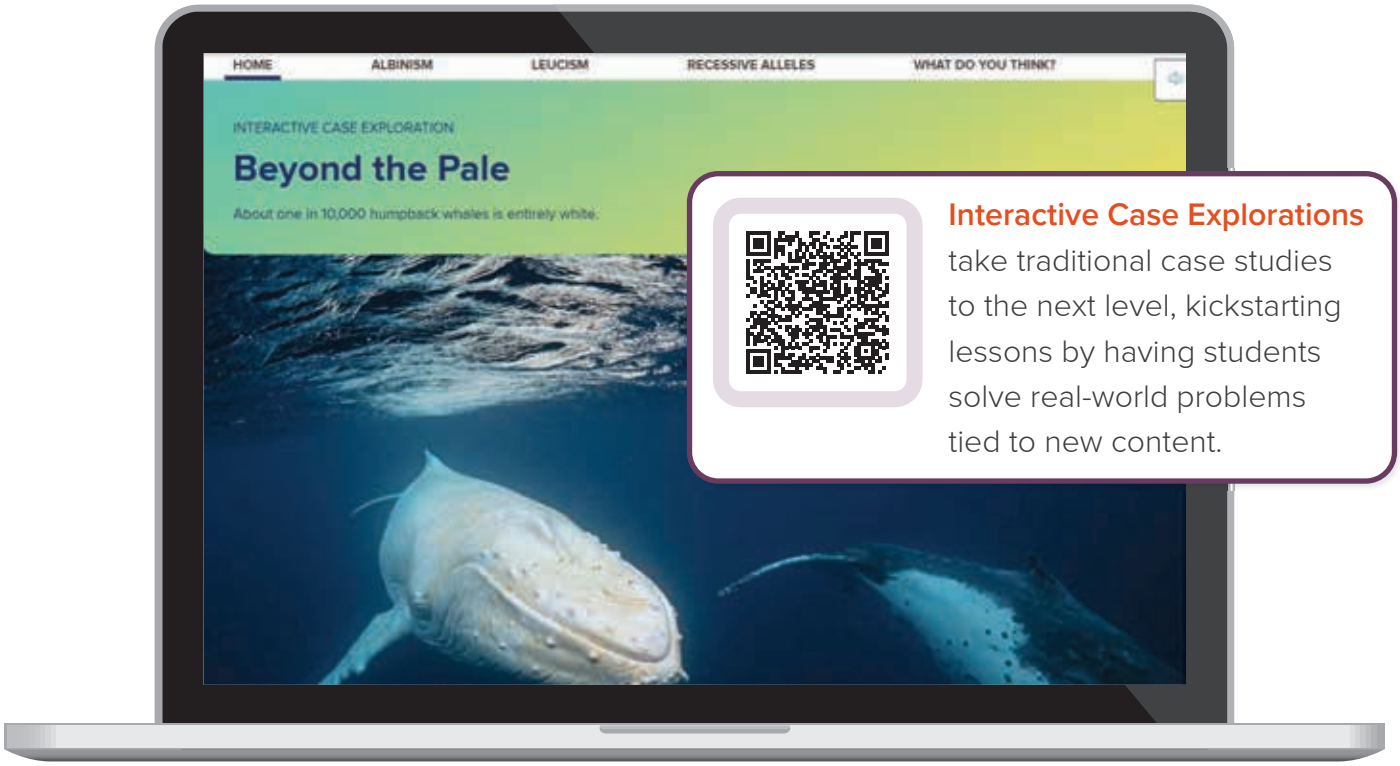
Virtual Lab

Whether jotting down lab notes or clicking through digital investigations, students have access to an array of rigorous hands-on activities through *Florida Science*, which encourages them to learn through interactive experiences and gain an in-depth understanding of the lesson.

- **Launch Labs** introduce lessons with hands-on activities, giving students the chance to ask questions as they explore new concepts.
- **Full-length Labs** like BioLAB give students the opportunity to lead their own investigation from start to finish, alongside the explanation of the content.
- **Teacher-driven Quick Demos** spark student curiosity and encourage them to ask questions and find explanations.
- **Virtual Labs** allow students to explore content beyond the limits of the classroom and as representations of real-world experiences.

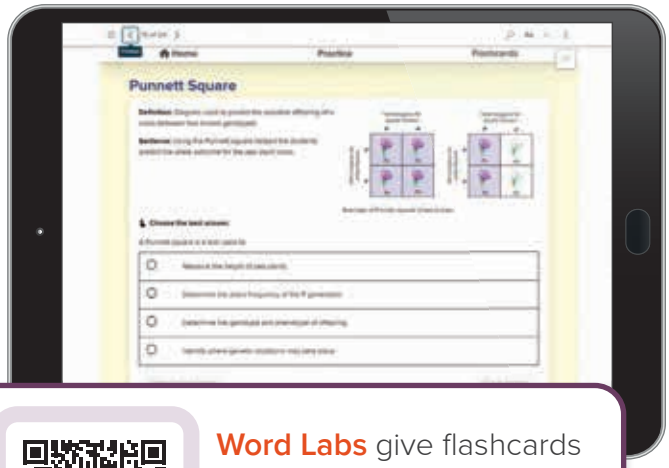
Boundless Science Learning

Transport students beyond the walls of your classroom with cutting-edge digital content, including interactives, simulations, videos, and more. Fun and easy-to-use, these features align with lesson topics to spark scientific curiosity, support discussion, enhance review, and deepen understanding.



Interactive Case Explorations take traditional case studies to the next level, kickstarting lessons by having students solve real-world problems tied to new content.

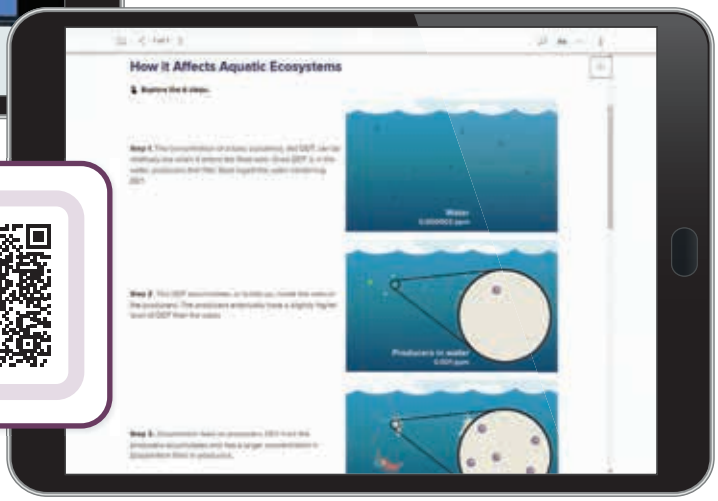
Science Bob Videos showcase ultra-engaging, content-related examples of science in real life.



Word Labs give flashcards a modern twist with flexible, student-driven, scientific word exploration.

Explore Simulations allow students to manipulate variables in a scenario beyond the limits of the classroom.

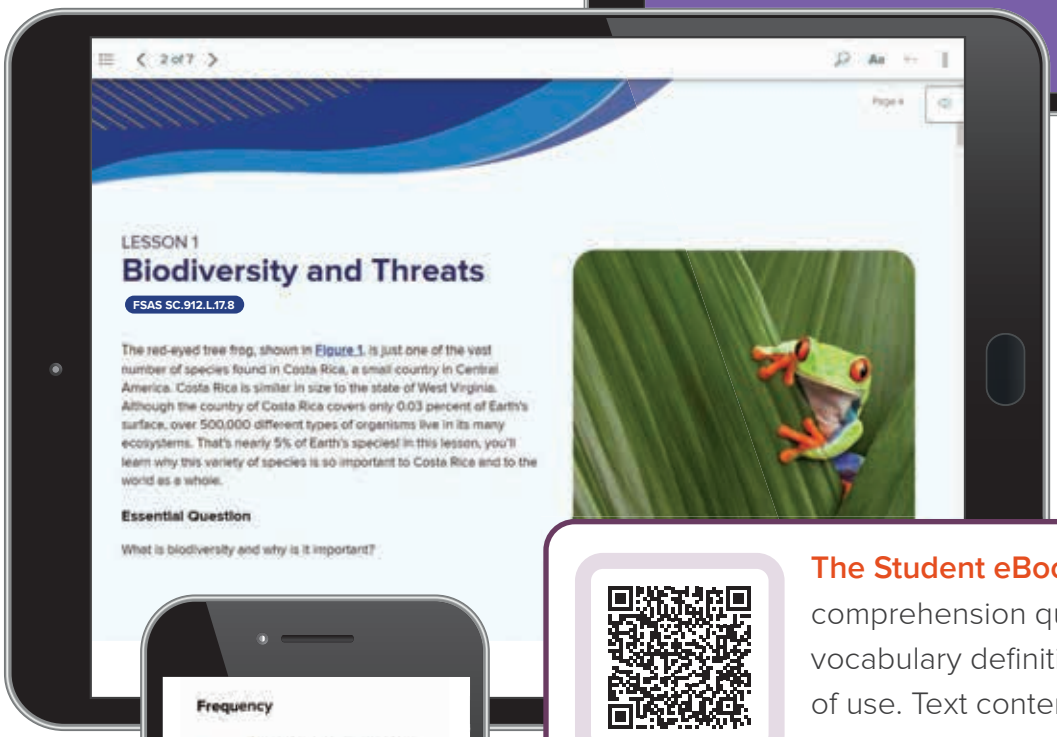
Example Problem Videos and interactive Example Problems demonstrate how to solve math problems within the chemistry and physics content.

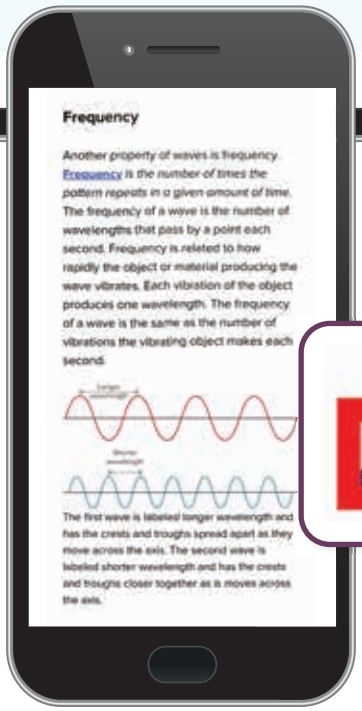


Interactive Visual Literacy features prepare students to identify visual representations of scientific phenomena.

Boundless Science Learning

Kahoot! uses fun, game show-like quizzes to help students review important material in an engaging way.





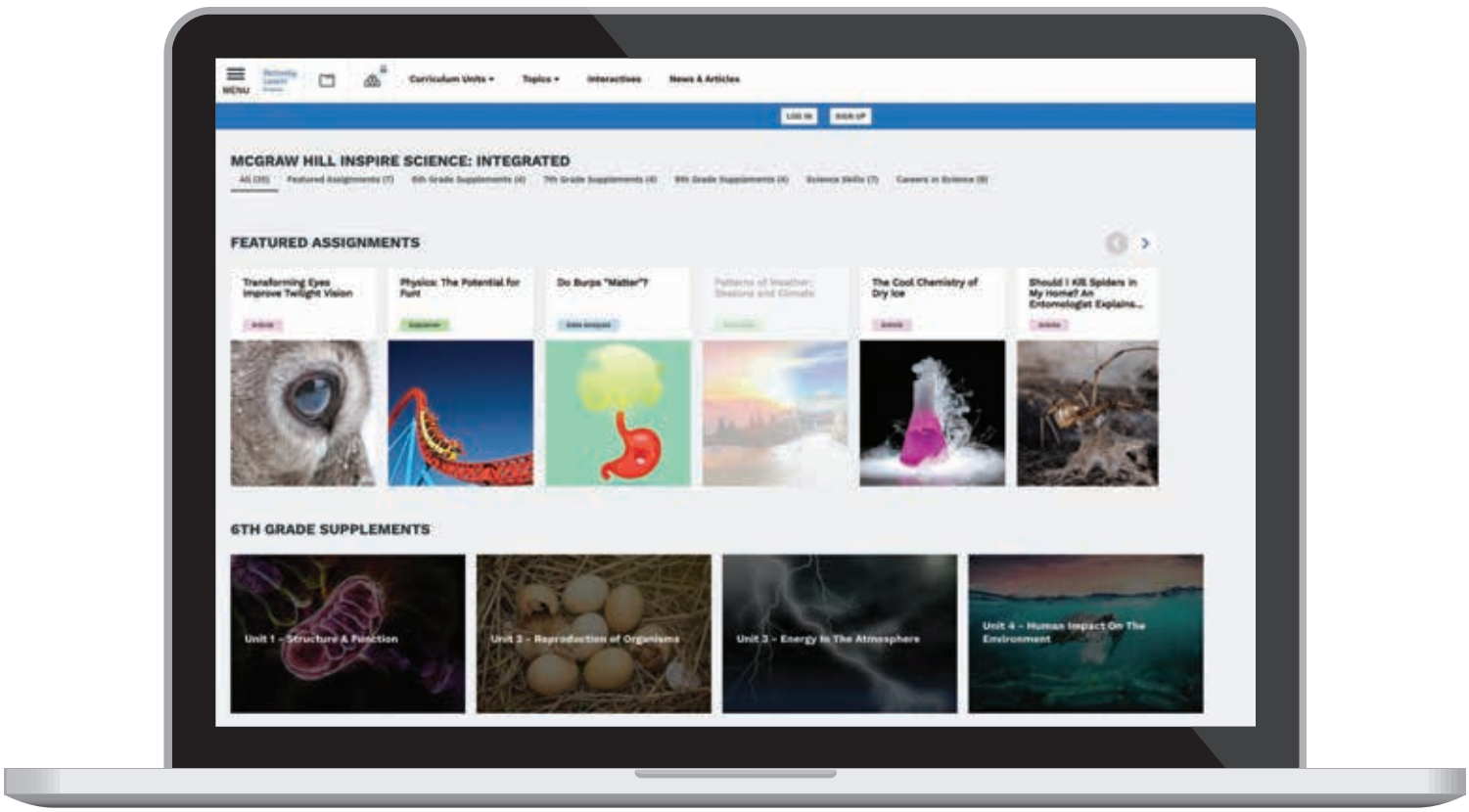
The Student eBook includes built-in comprehension questions and vocabulary definitions at the point of use. Text content is available at multiple reading levels, so students can adjust as needed.

With the **McGraw Hill K12 Portal App** students can access their content anywhere, any time, on any device, with or without internet access.

Actively Learn

As educators, you know how important it is to keep students engaged. That's why each *Florida Science* module and lesson is designed to tap into students' natural curiosity about the world around them through the investigation of real-world phenomena. Student engagement is further fueled through an innovative digital experience, and connections to real-world applications.

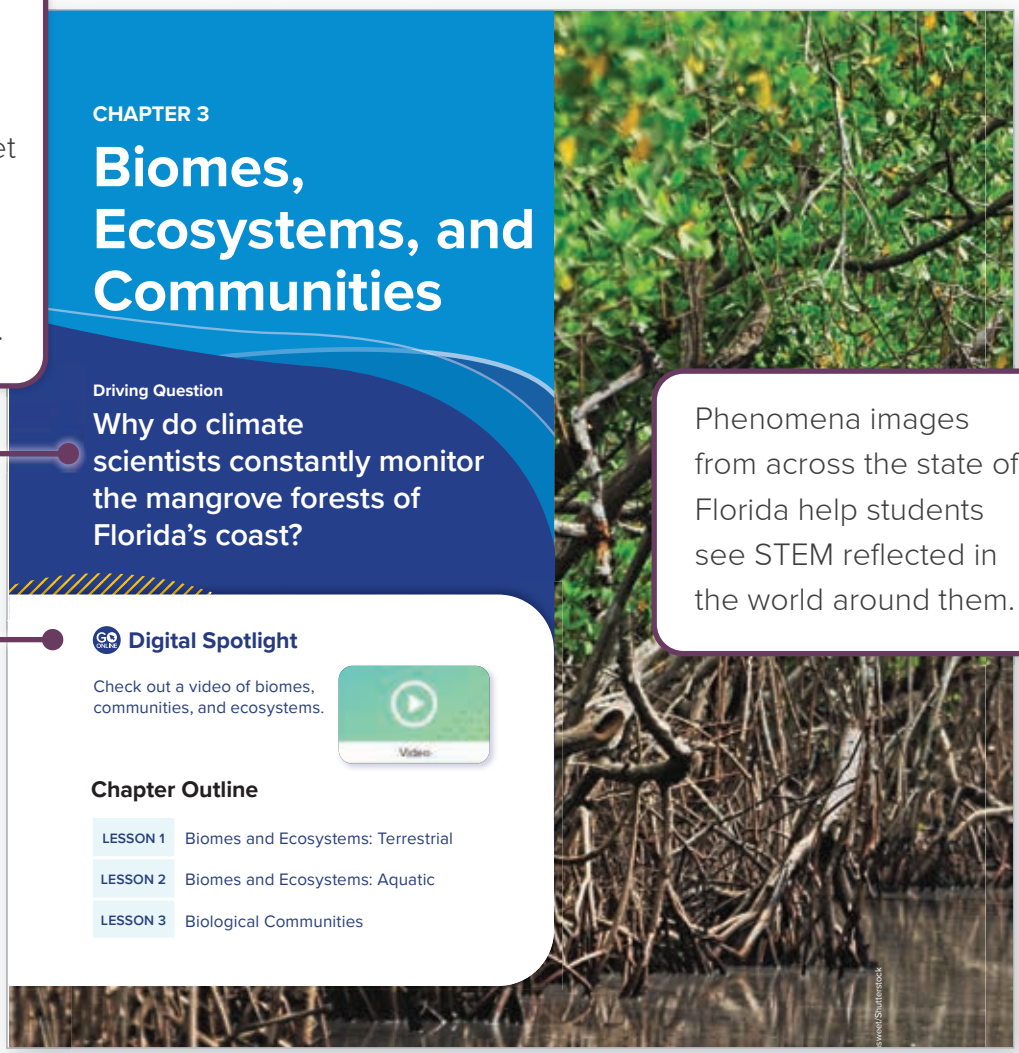
- **Engaging, relevant, standards-based content** for all learners
- **Science texts, articles, and videos** at each student's level
- **Inquiry-driven science simulations** that bring natural phenomena to life
- **Interactive reading and study aids** that promote active collaboration
- **Rich, cross-curricular connections** to literature and history
- **Powerful tools** that let teachers customize content or upload their own
- **Access to student data** to inform instructional decisions



Fuel Innate Curiosity: The Print Student Experience

Grounded in powerful visuals of Florida phenomena, *Florida Science* print materials connect scientific concepts to everyday life and individual experience. Interwoven with hands-on, inquiry-based activities, the program encourages students to launch investigations and explore science right outside their door.

Driving Questions at the start of every chapter put students into a scientific mindset and introduce an overarching problem for them to consider throughout the lesson.



Phenomena images from across the state of Florida help students see STEM reflected in the world around them.

Digital Spotlight learning options allow students to kick off the chapter with engaging videos or Interactive Case Explorations.

PROGRAM FEATURE!

Science Literacy Essentials are also available in print!

Chapter Wrap Up

Driving Question

Why do climate scientists constantly monitor the mangrove forests of Florida's coast?

Driving Question Wrap Up

Throughout this chapter, you studied terrestrial and aquatic biomes and ecosystems, communities, and ecological succession.

Think About It Review these questions to understand why mangrove forests are an important biome.

- What biome or ecosystem are mangroves found in?
- What is ecological succession and how is it impacted by human activities and climate change?
- What type of ecological succession is happening in your local community?

Review questions at the end of every lesson allow students to provide evidence of their individual learning progression.

The **Driving Question Connection** within the chapter content revisits the question introduced at the beginning of the chapter.

Human and Climate Impacts on Terrestrial Biomes and Ecosystems

DRIVING QUESTION CONNECTION We began this lesson talking about climate and how climate is classified. After reading about terrestrial biomes and ecosystems, it's easy to see that biomes and climate are interlinked. As temperatures warm because of global climate change, biomes and the boundaries between biomes are changing. The migration of the red fox into the tundra is one consequence of a shift of boreal forests into tundra. With increasing temperatures, boreal plant and animal species are able to live in latitudes previously classified as tundra. This decreases the habitat for species unique to the tundra such as snowy owls and arctic foxes.

Temperature increases also mean that parasites such as ticks that carry Lyme disease are moving northward into biomes where they were not previously an issue. This impacts humans as well as other organisms. These shifts in climate affect the biodiversity of biomes and impact ecosystem stability. The climatic shifts also affect aquatic ecosystems, as you'll learn in the next lesson.

Vocabulary FSAS Expertise

Strengthening Science Vocabulary and Communication with Dr. Julie Jackson's Word Walls

From renowned author and educator Dr. Julie Jackson, Interactive Word Walls bring science vocabulary to life so that students can build meaningful relationships to FSAS concepts rather than simply memorize them.

Dr. Jackson's *Florida Science* innovations include:

- **Science language information** in every chapter that highlights target vocabulary.
- **Assign the Word Lab** for interactive practice with content vocabulary terms. It provides visuals, definitions, and examples for vocabulary words, as well as activities involving word origins, affixes, multiple-meaning words, and words in context.

Science Language and Content Acquisition

Provide students rich and varied experiences with science vocabulary as a way to bolster confidence and help students develop scientific language.

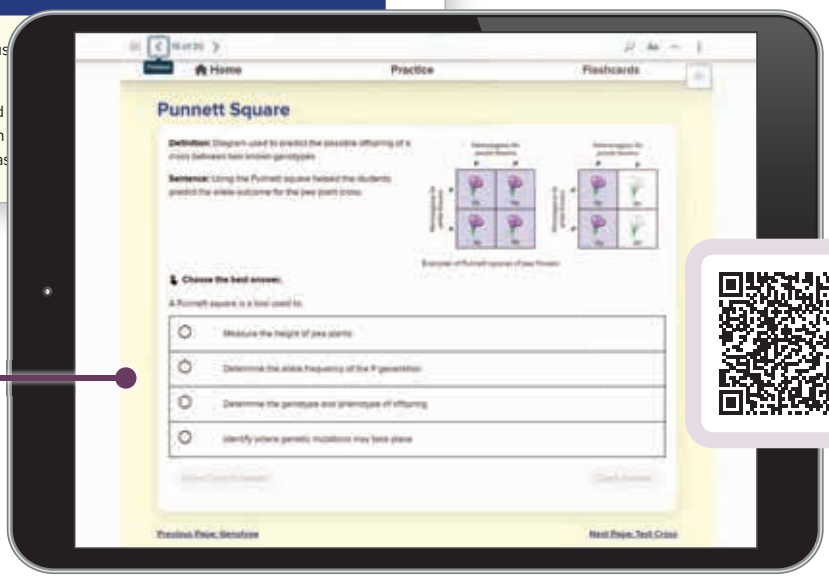
Chapter Vocabulary

Use the Interactive Word Wall to help students gain an understanding of the target vocabulary within the context of the entire FSAS. Build this together as a class on the wall for each lesson's Interactive Word Wall.

Check out Dr. Julie Jackson's professional development videos and access additional interactive Word Wall support.

Target Vocabulary				
Prior Knowledge Terms		Lesson Vocabulary		Supporting Vocabulary
Lesson 1				
biomes	mountains	climate	temperate deciduous forest	
weather	species	Köppen climate classification	temperate grassland	
temperature	abiotic factors	tundra	tropical rain	
precipitation	characteristics	boreal forest	tropical seas	
global wind currents	ecosystem	temperate coniferous forest	forest	

Science language and content acquisition support word learning during instruction by fostering thoughtful connections.



Innovative Word Labs allow students to study science vocabulary at their own pace using visuals and embedded word strategies.

Word Lab

Science Literacy FSAS Expertise

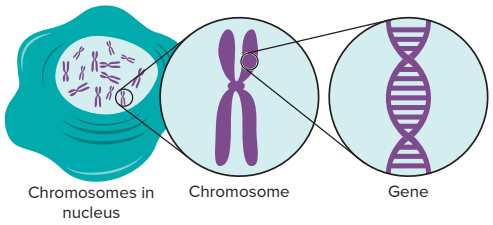
A well-regarded reading expert, Dr. Doug Fisher helped create our new and improved Science Literacy Essentials to foster reading comprehension.

Dr. Doug Fisher, Ph.D.

Florida Science empowers all students to succeed in science—no matter their starting point. The **new** Science Literacy Essentials provide reading and writing support for students in need of a little extra help, including:

- **Content written two Lexile levels lower** than the on-level content
- **Teacher tips** to provide ample student support
- **Writing space** for students to practice explaining their understanding
- **Print, digital, and Spanish-language versions** of the text

Science Literacy Essentials include visual supports to enhance learning for all types of learners.



History Connection How did scientists discover DNA? Rosalind Franklin and Maurice Wilkins were scientists who used X-rays to study DNA. James Watson visited Franklin and Wilkins. He saw one of the X-rays. He realized that the X-ray gave clues about DNA's structure. Watson worked with scientist Francis Crick to build a model of DNA based on Franklin's and Wilkins' X-rays. The model showed how the smaller molecules of DNA bond together and form a double helix.

TIP Note that the lines to the chromosome show that this is one of many chromosomes in the nucleus of a cell. The lines to the gene show that a gene is part of a chromosome.

Tips provide support for students at point of use.

9. Write About It What is the relationship between chromosomes and genes?

Write About It! gives students opportunities to show their understanding through the rigor of writing.

Science Literacy Essentials

Foster Multilingual Connections

Every student deserves access to a rich, robust, and challenging science curriculum leveled to their needs and abilities. *Florida Science* applies the best pedagogical practices for teaching emergent bilingual students, complete with authentically translated print and digital texts and an array of diverse scaffolding tools.

Dr. Cindy Guerrero

Known for her expertise in teaching practices for emergent bilingual students, Dr. Guerrero's *Florida Science* supports encourage English-language development through science learning.

Activate Prior Knowledge prepares all emergent bilingual students with content-specific strategies.

Spanish Language Transfer gives teachers information to better support emergent bilingual students.

ELL English Language Learner Supports

Help students activate their prior knowledge about the vocabulary in this chapter and introduce them to new terms using the following activity.

Activate Prior Knowledge Provide students with the prior knowledge terms and key content terms written on individual notecards, differentiating the activity as needed.

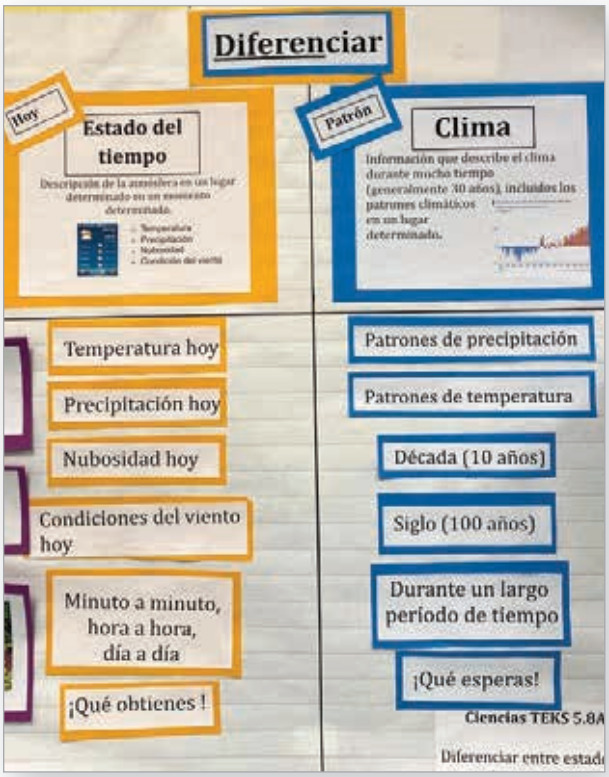
Entering/Emerging	Developing/Expanding	Bridging/Reaching
Have students scan the chapter and write the words they know in K-W-L charts, writing definitions in their home language. Then tell them to add the words and definitions they want and need to know as they learn them throughout the chapter.	Have students scan the chapter and write the words they know in K-W-L charts. Then tell them to add the words and definitions they want and need to know as they learn them throughout the chapter.	Have students scan the chapter and write the words they know in K-W-L charts. Then have them add the words they want/need to know and add what they learn as they learn it.

Transferable Skills	Non-Transferable Skills
Many questions in English begin with the question words *who, what, when, where, why, how*. Similarly, questions in Spanish often begin with the question words *quién, qué, cuándo, dónde, por qué, cómo*.	There are many words in English that begin with *s*-clusters (*species, stimulus, Spanish*). Spanish cognates of these words tend to place the vowel *e* before a similar *s*-cluster sound (*especies, estímulo, español*).
Cognates	**False Cognates**
For students whose first language shares cognates with English, have them use the knowledge of their first language to learn English. Examples of English/Spanish cognates in this chapter: biology / biología species / especies meter / metro density / densidad precision / precisión graph / gráfica	Point out false cognates to help students avoid errors. English: actually (sp. realmente) Spanish: actualmente (en. currently, presently) English: rate (sp. tasa) Spanish: reto (en. challenge)

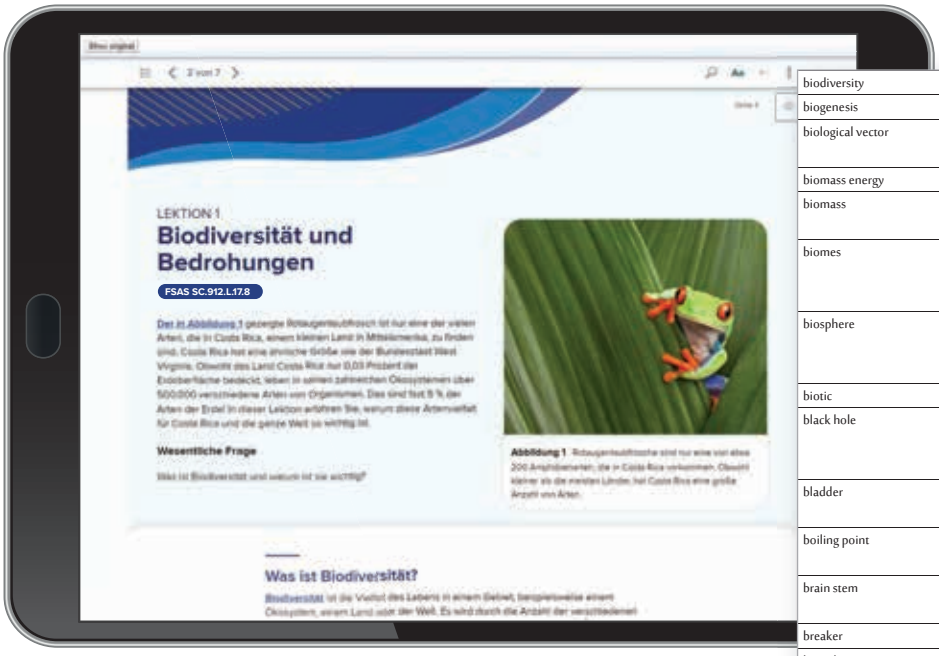
Reading Comprehension and Multilingual Support

Florida Science supports reading comprehension by using a variety of innovative tools and scaffolds:

- Both the core text and Science Literacy Essentials are **available in Spanish** online in a printable format.
- **Google Translate** is available for students where needed.
- The **multilingual glossary** offers key vocabulary definitions in over 10 different languages.



Spanish Interactive Word Wall



Google Translate

biodiversity	التنوع الأحيائي	ات الحية الموجودة في منطقة معينة.
biogenesis	النشوء الحيوي	الكائنات الحية تتوالد من الكائنات الحية الأخرى فقط.
biological vector	الناقل الحيوي	ران والبعوض والذباب، ناقلٌ للأمراض وتعمل هذه ر الأمراض المعدية.
biomass energy	طاقة الكتلة الحيوية	تج عن إحراق المواد العضوية كالخشب والكحول.
biomass	الكتلة الحيوية	تجددة تؤخذ من النباتات والحيوانات، مثل الخشب ت، والتي يمكن إحراقها بغرض التدفئة.
biomes	المواطن البيئية	شاسعة متشابهة من حيث الظروف المناخية والنظام لتندرة والتايغا والصحاري والغابات الموسمية المعتدلة ة المعتدلة والغابات الاستوائية المطرة والمراعي.
biosphere	الغلاف الحيوي	عم الحياة على الأرض ويشمل ذلك الجزء العلوي من والغلاف الجوي وكل المناطق التي بها مياه على سطح
biotic	الحيوية	ية أو التي كانت حية يومًا ما.
black hole	الثقب الأسود	تطور نجم هائل الحجم حيث تنفجر كتلة المركز مخلفة الجاذبية بشكل كبير بحيث لا يمكن حتى للضوء الإفلات
bladder	المثانة	ن يحمل البول بداخله إلى أن يخرجه الجسم عبر مجرى
boiling point	نقطة الغليان	تي يكون عندها ضغط بخار السائل مساويًا للضغط على سطح السائل.
brain stem	جذع الدماغ	حبل الشوكي، ويتألف من الدماغ الأوسط والجسر ونخاع
breaker	الموجة المتكسرة	ا، وتتكون في المياه الضحلة ثم تنكسر على الشاطئ.
bronchi	الشعيبات	بب القصيرة تنبعان من الجزء المنخفض من القصبة ن الهواء إلى الرئتين.
budding	التبرعم	التوالد اللاجنسي حيث ينمو كائن حيّ على جسم والده.
budding	البرعمة	التوالد اللاجنسي حيث يولد كائن حيّ من كائن حيّ آخر الصفات الوراثية للكائن الأصلي.
buffer	المحلول الداري	على أيونات تتفاعل مع الحمضيات أو القواعد ويقلل من

Multilingual Glossary

Assess and Address Learning Needs

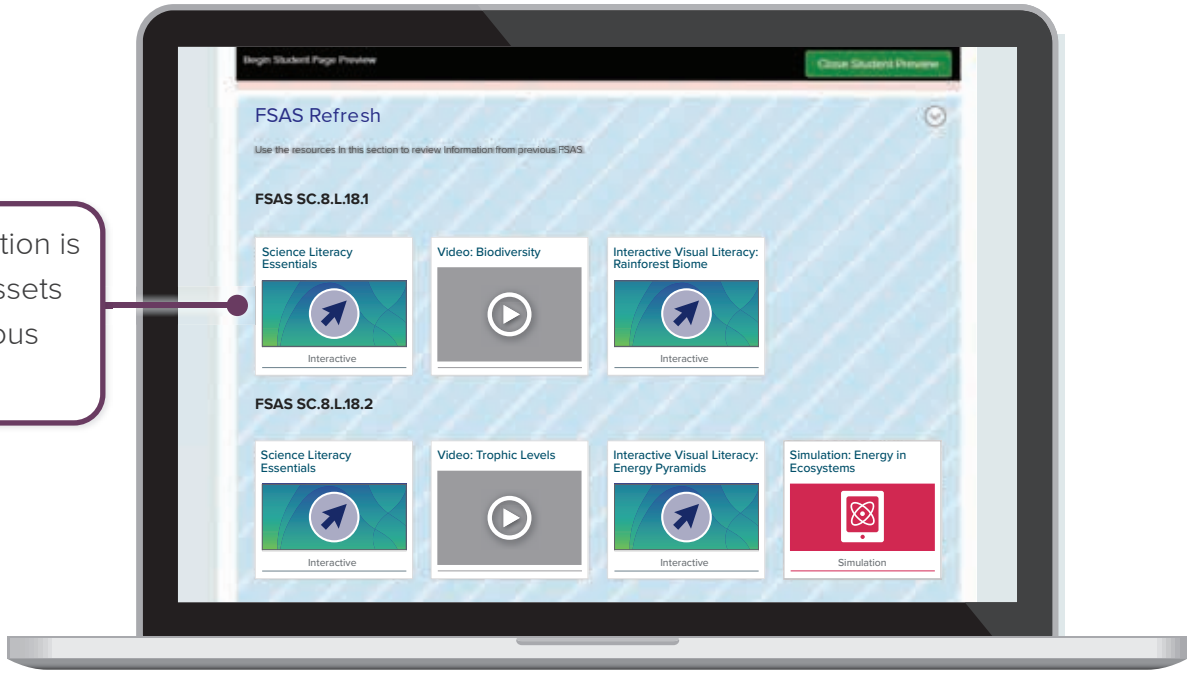
Chart the path to FSAS mastery with a suite of easy-access tools aimed at gauging student understanding, identifying learning gaps, and targeting misconceptions throughout each lesson and chapter. Formal exam practice, personalized and adaptive study tools, and a curated selection of learning assets ensure Florida state science assessment success and deep comprehension for all students.

Formative Assessment Tools

- **Chapter pre-tests** are available online to kick off lessons by evaluating current student understanding.
- **FSAS Refresh** allows teachers to assign students LearnSmart problems to help close foundational knowledge gaps.
- Throughout the Teacher's Edition, **Checks for Understanding** provide guidance to help teachers track student comprehension.

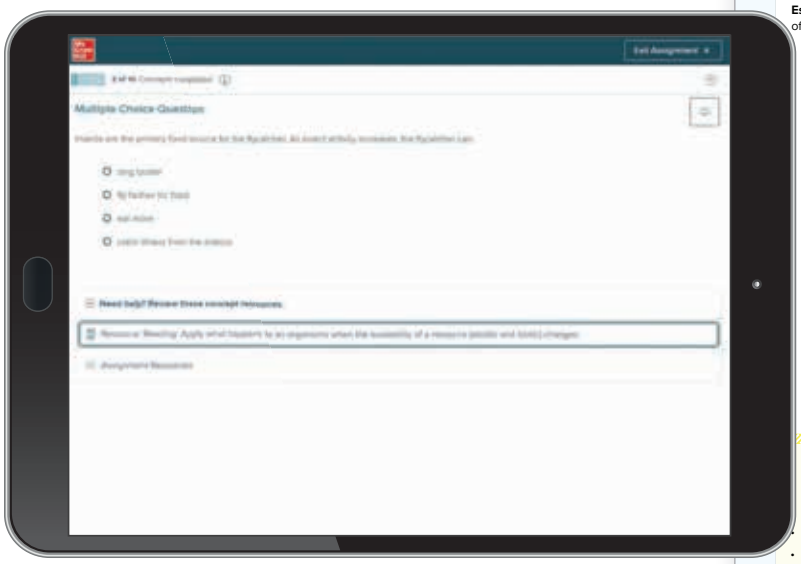
LearnSmart for the new FSAS gives students a chance to take learning into their own hands while granting teachers insight into students' knowledge and abilities.

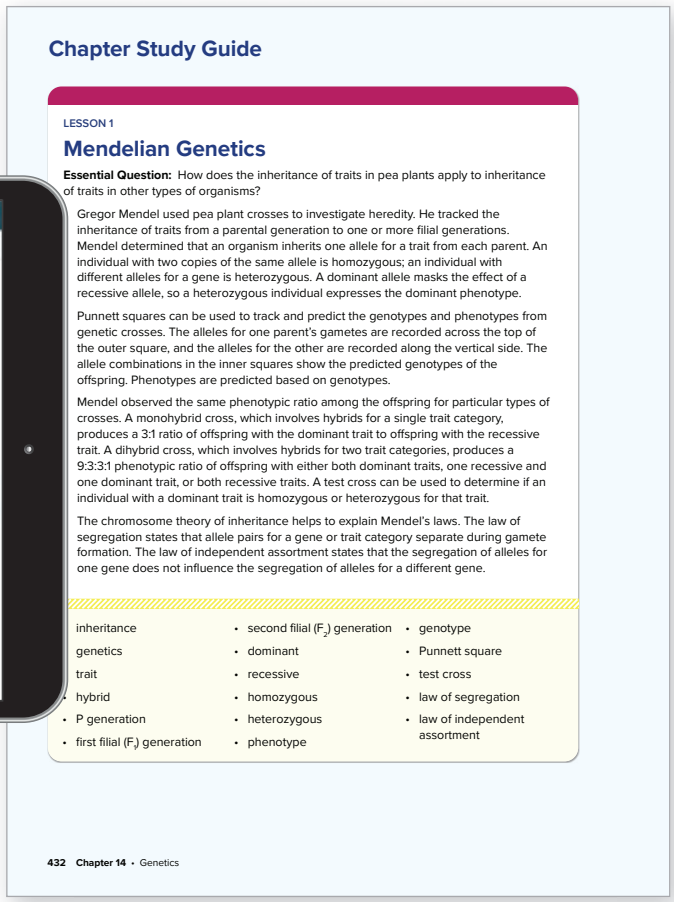
Each subsection is a group of assets from a previous grade level.



Summative Assessment Tools

- **Exit Tickets** quiz students at the end of every lesson to assess understanding—available in print and digital formats.
- **Chapter study guides** give students the tools to check their own understanding as they prepare for upcoming tests.
- **The Florida End of Course Assessment Guide for Biology** provides Florida state science assessment-aligned questions to prepare students for the end-of-course exam.
- **Vocabulary tests** at the end of each chapter assess students' understanding of key FSAS vocabulary.
- **Chapter tests** are available for assignment online, as are chapter review assignments to help students prepare.
- **STEM Projects** allow students to demonstrate their understanding through creative, hands-on applications of the material.





Chapter Study Guide

LESSON 1

Mendelian Genetics

Essential Question: How does the inheritance of traits in pea plants apply to inheritance of traits in other types of organisms?

Gregor Mendel used pea plant crosses to investigate heredity. He tracked the inheritance of traits from a parental generation to one or more filial generations. Mendel determined that an organism inherits one allele for a trait from each parent. An individual with two copies of the same allele is homozygous; an individual with different alleles for a gene is heterozygous. A dominant allele masks the effect of a recessive allele, so a heterozygous individual expresses the dominant phenotype.

Punnett squares can be used to track and predict the genotypes and phenotypes from genetic crosses. The alleles for one parent's gametes are recorded across the top of the outer square, and the alleles for the other are recorded along the vertical side. The allele combinations in the inner squares show the predicted genotypes of the offspring. Phenotypes are predicted based on genotypes.

Mendel observed the same phenotypic ratio among the offspring for particular types of crosses. A monohybrid cross, which involves hybrids for a single trait category, produces a 3:1 ratio of offspring with the dominant trait to offspring with the recessive trait. A dihybrid cross, which involves hybrids for two trait categories, produces a 9:3:3:1 phenotypic ratio of offspring with either both dominant traits, one recessive and one dominant trait, or both recessive traits. A test cross can be used to determine if an individual with a dominant trait is homozygous or heterozygous for that trait.

The chromosome theory of inheritance helps to explain Mendel's laws. The law of segregation states that allele pairs for a gene or trait category separate during gamete formation. The law of independent assortment states that the segregation of alleles for one gene does not influence the segregation of alleles for a different gene.

- inheritance
- genetics
- trait
- hybrid
- P generation
- first filial (F_1) generation
- second filial (F_2) generation
- dominant
- recessive
- homozygous
- heterozygous
- phenotype
- genotype
- Punnett square
- test cross
- law of segregation
- law of independent assortment

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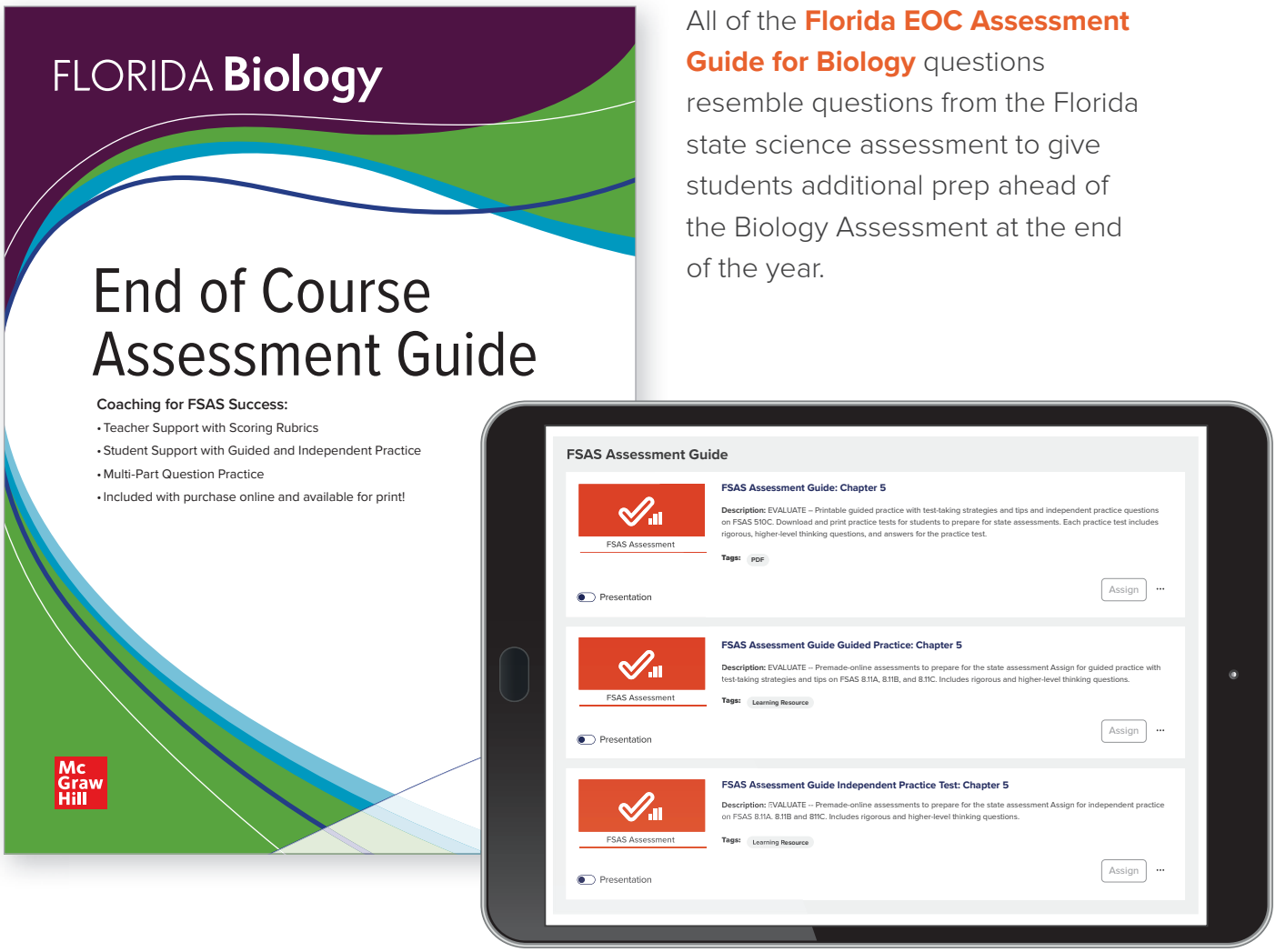
EOC Success Preparation

The Florida state science assessment is more than an assessment—it's an opportunity for students to show how they've grown as scientists. While preparing students for such a critical exam may seem overwhelming, *Florida Science* test-prep tools ensure students receive comprehensive review individually tailored to their needs—perfect for teachers of all experience levels.

- **Florida EOC Assessment Guide for Biology:** Providing robust Florida state science assessment exam practice, the FSAS assessment guide allows students to practice sensemaking through assessment technology, learn test-taking skills and strategies, and review information from previous grade levels and pre-requisite FSAS.
- **FSAS Refresh:** These bite-sized activities at the beginning of every chapter allow students to review pre-requisite information from previous grade-level FSAS.



All of the **Florida EOC Assessment Guide for Biology** questions resemble questions from the Florida state science assessment to give students additional prep ahead of the Biology Assessment at the end of the year.

Customized Professional Development

To help school districts across Florida meet new educational standards, *Florida Science* comes with an evolving library of relevant, self-paced, professional learning videos and modules. From implementation through instructional progression and mastery, these resources are available 24/7 at your fingertips.

Program Implementation Support

Implementation support provides everything you need to know to get up to speed on the first day of school.

- **The Quick Start eLearning Module** explains program basics to help get you started.
- **Plan, Teach, and Assess eLearning Modules** provide deep-dives into the program's instructional model and resources.
- **Digital Platform Support** provides step-by-step instructions for digital tools to help you feel confident planning, teaching, and assessing in the digital experience.

Ongoing Pedagogy Support

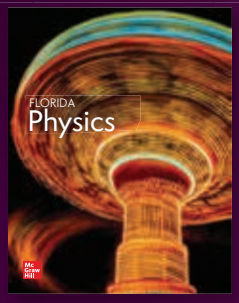
With *Florida Science*, you will find a wide range of resources on key instructional and pedagogical topics, including videos from our program authors and consultants.

- **STEM Classroom Videos** model lessons from real classrooms.
- **Science Preconceptions Videos** review common preconceptions and strategies to overcome them.
- **Instructional Coaching Videos** discuss best practice strategies and the "why" behind the success.
- **Science Pedagogy Micro-Courses** are designed for your professional learning community with facilitation guides for both self-guided or small-group courses.

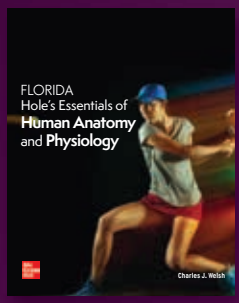
FLORIDA Science

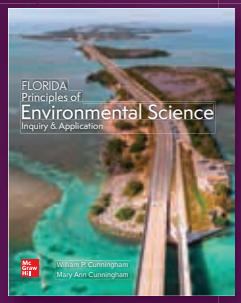
UNLIMITED POTENTIAL

GRADES 9-12



ELECTIVES





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