Florida Middle School Science is about connecting science content, rigor, engagement and adaptive instruction for student success.

As your trusted partner, we deliver to you an effective, innovative and inspiring middle school science curriculum that meets your Florida state standards.

With Florida Science, you’ll find the essential tools to support your classroom needs.

- Page Keeley Science Probes
- LearnSmart® adaptive learning technology with integrated Smartbook®
- Robust Assessment Support
- PBL’s & Rigorous Student Materials
- Inquiry-Based Learning
- Engaging Student Content
- Practical Professional Development

Florida Science gives you the freedom, flexibility, and resources to create unique lessons that will prepare students for success in the classroom - and in STEM-related careers.

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How to Use Science Probes

- Research has established that it is important to identify and correct students’ misconceptions about natural phenomena and scientific concepts in order to facilitate their learning in science.

- Probes are designed to identify common misconceptions, as well as enhance metacognition for students by making them more aware of their existing ideas.

- Probes can be used before teaching a chapter to make you aware of concepts that may be stumbling blocks for students and to initiate student thinking and discussion about the concepts they will study.

- Probes also can be used to monitor student learning throughout the course of instruction to determine if students have corrected their understandings of natural phenomena and scientific concepts, and to assess their increasing grasp of the topics.

Science Probes

Ms. Keeley is the former President of NSTA (National Science Teachers Association) and the recently retired Senior Science Program Director at the Maine Mathematics and Science Alliance, where she directed projects in the areas of leadership, standards-based curriculum and instruction, formative assessment, professional development design, and instructional coaching. She provides professional development and consultation services to school districts, math-science partnership (MSP) projects, university programs, and math/science organizations throughout the United States.
Help students learn faster, study more efficiently, and retain more knowledge.

The LearnSmart® adaptive learning engine with SmartBook® gives every student a unique learning path and every teacher the power to reach all students in class.

SmartBook® is an eBook whose text is fully integrated with LearnSmart® technology. As a student reads, this technology determines precisely which learning objectives each student understands or struggles with, highlighting the most critical content for the student to read next.

Pinpoint knowledge gaps for individual students and across classes

Empower students to personalize their learning experience with optimal learning paths so they spend more time on what they don’t know with LearnSmart®.

• Practice of basic science concepts to improve recall and application before moving on.

• Additional exposure and increased practice to master new concepts.

• Presentation of concepts individual students struggle to master.
Support Each Student's Unique Needs

LearnSmart® is a proven adaptive learning program that helps students’ success by providing a personalized learning path that’s based on their responses to questions, as well as their confidence about the answers they provide.

Using revolutionary adaptive technology, LearnSmart® builds a learning experience unique to each student’s individual needs.

LearnSmart® gives students an advantage by improving learning outcomes by ensuring every minute a student spends studying is the most productive minute possible.

Maximize Study Time

- Within LearnSmart®, discover Smartbook®, the only adaptive reading experience designed to transform the way students read.

- The interactive challenge format highlights content and helps each student identify content they know, don’t know, and are most likely to forget.

- Learning Resources close knowledge gaps by immediately clarifying the concepts the student finds most challenging.

- Teachers receive detailed reports of student progress.

Access a LearnSmart® Demo at www.connected.mcgraw-hill.com
Username: FL612SCIDEMO | Password: fl2018science
Robust Assessment Support

Take student achievement to the next level with Online Assessment

**Online Assessment** gives you the ability to monitor students’ progress and make data-driven instructional decisions.

- Use Online Assessment to create tests and assignments.
- Access to Florida-specific Online Assessment questions available at each course level.
- Professional development resources include pertinent information on science standards and implementation best practices, available 24/7.

Robust Assessment Support

- Explore Formative Assessment Probes designed by Page Keeley.
- Florida-specific Online Assessment questions at each grade level.
- “Check in” with students throughout the chapter with Key Concept Checks, Reading Checks and Visual Checks.
- Print and digital lesson reviews also give a quick snapshot of students’ understanding.
- The built-in assessment strand throughout your Florida Science Program will help your students stay on track.
- Test-taking strategies for the Statewide Science Assessment in grade 8.
- Florida Science also includes NGSSS Reviews, Chapter & Lesson reviews, as well as Benchmark Assessment tests (Mini-Bats).
ConnectED is a time-saving online portal that has all of your digital program resources in one place.

**ConnectED allows you to:**

- Build lesson plans with easy-to-find print and digital resources.
- Search for activities to meet a variety of learning modalities.
- Teach with technology by providing virtual manipulatives, lesson animations, whole-class presentations and more.
- Personalize instruction with print and digital resources.
- Provide students with anytime, anywhere access to student resources and tools, including eBooks, tutorials, animations, and the eGlossary.
- Access to Online Assessment, track student progress, generate reports, and differentiate instruction.

With ConnectEd Mobile you can browse your course content on the go.

The app includes a powerful eBook engine where you can download, view, and interact with your books.
Four friends argued about natural resources and their impact on the environment. This is what they said:

Kate: It is better to use natural resources because they don’t harm our environment like human-made resources.

Clint: It is better to use human-made resources because they don’t harm our environment like natural resources.

Abby: It doesn’t matter—both natural and human-made resources can harm the environment.

Troy: Neither human-made nor natural resources are harmful. They are both good for the environment.

Which friend do you agree with the most? __________ Explain why you agree.
Apply Interactive Practice

Students have their own digital learning platform called the ConnectED Student Center, complete with student worksheets and digital resources. Assignments you create appear in their to-do lists. Students can message you directly and submit their work.

Use expanded Student Center features such as Personal Tutor, BrainPOP®, and VIVED® videos to go beyond the limitations of the printed page and bring science into your students’ lives like never before.
Project-Based Learning Activities (PBLs)

Engage and motivate students with hands-on project based activities and real world applications.

**Project-Based Learning (PBLs) Activities**

- PBL activities that reflect the full scope of science content standards for your Florida Science needs.
- Help students build confidence and keep them motivated lesson-to-lesson with engaging PBLs to deepen their understanding of science content through real-world applications.
- PBLs integrate traditional science with engineering content. Truly interactive student resources, learning activities, and worksheets are embedded for point-of-use access.
- Students can use these dynamic resources immediately to practice new concepts as they are introduced.

**Science and Engineering Practices Handbook**

- Support students in their scientific investigations and engineering projects.
- Online reference book.
- Provides students with background information, definitions, examples, and Quick Practice activities.

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**Defining Problems**

- Defining problems is an engineering practice that underlies any technological solution. The different components of this practice are briefly summarized below.
  1. Engineers design solutions to problems.
  2. Problem statements outline the problem and the solution.
  3. Asking questions is part of engineering as well as science.
- Defining problems doesn’t involve a dictionary or a math worksheet. Engineers study how people do things and try to make the experience better. If people don’t have a way to do something yet, engineers invent it.
- Engineers have to consider many factors when defining a problem.

**Selecting a Solution**

- Engineers identify problems for people and society and then design solutions to those problems. The solution could be a process, a system, or an object, such as a tool. Space suits worn by astronauts on the moon are an example of an object designed by engineers. When coming up with any solution, engineers must consider certain criteria.
- **Criteria** are requirements or specifications for a product to be successful.
- Criteria for a space suit may include the size of the person wearing it, how easy it is to move around in, and the temperatures it can withstand.
- Engineers also have certain constraints on every solution.
- **Constraints** are limitations on a product’s design.
- For example, materials must be strong enough to hold a person’s weight. Other constraints include the availability of tools and materials, the time frame, the environment in which the product will be used, and the temperature at which the product will be used.

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**Weather Wardrobe**

Your science class is taking a week-long field trip to Shoshone National Forest the day after tomorrow. Your teacher reminds everyone to dress appropriately for the weather.

Your assignment is to collect weather data to determine how you should pack for your field trip.
Inquiry Based Learning

Powerful Inquiry

Inquiry based activities like, Problem-Based Learning modules, Explore Activities, a variety of labs and more can be found throughout the Florida Science Program.

Each lesson begins with an Explore Activity, that can be answered with hands-on activites, group work, discussion and reading.

Hands-On Labs

Launch labs: 10-20 minutes
These are quick, engaging labs that encourage students to ask questions.

Mini labs: 15-20 minutes
These labs focus on and reinforce specific Key Concepts explained in the reading.

Skill Practice: 20-40 minutes
These labs provide in-depth practice of a specific inquiry skill that students will apply in the end of chapter lab.

End of Chapter: 1-2 class periods
This is a culminating lab in which students apply inquiry skills and science concepts in an in-depth investigation.

Teacher Support: Your TE contains content support, teaching tips and lab instruction that will help you be confident in each lab. Lab material lists can be found online within your teacher resources.
Improving students’ reading skills will improve their success in the science classroom.

**Differentiation Support**

Address multiple learning styles using activities tailored for approaching level, on level, or beyond level students as well as providing accommodations for English Language Learners (ELL).

Each lesson provides easy-to-use resources that consider the needs of all students.

Teacher Toolbox allows you to extend beyond the traditional instruction, providing activities, fun facts and more.

**Reading Essentials**

- Teacher Edition with strategies to modify activities and lesson content.
- **Multilingual eGlossary** with definitions for each vocabulary word in 13 languages.
- Vocabulary support is available in the margins of each chapter as well as close reading strategies.
- Improve reading skills with chapter resource files - Vocabulary Practice pages, language arts applications.

**English Language Learners**

- Teacher Edition with strategies to modify activities and lesson content.
- **Multilingual eGlossary** with definitions for each vocabulary word in 13 languages.
- Vocabulary support is available in the margins of each chapter as well as close reading strategies.
- Improve reading skills with chapter resource files - Vocabulary Practice pages, language arts applications.
Student Engagement

Create a teaching environment in which students are curious and actively engaged in learning.

**Engaging Student Content**

*Engaging Student Text:* Write in text for your students to truly engage with the content.

*Videos and Animations:* This science program offers a variety of animations and videos that relate specifically to the content in each chapter.

*Engagement Toolbox:* Your TE contains a variety of hands-on demos and activities. Videos and other bell ringers kick off each lesson, focus your students, and encourage active learning.

*Stunning Visuals:* Exciting and colorful visuals grab students’ attention and teach difficult concepts in a way that students can understand.

*Dinah Zike/Foldables:* Hands-on study organizers in every lesson. Students put content in their own words.

**Practical Professional Development**

*Designed on the principles of effective professional development*

- Self-paced courses
- Foldables
- Science and Engineering Practice Videos
- On-demand webinars
- Page Keeley Science Probes
To learn more about the Florida Science program, visit mheducation.com/prek-12 or contact your Florida Sales Representative.