



South
Carolina
Inspire
Science

Explore Our Phenomenal World

Inspiring the Next Generation of Innovators

While career opportunities in Science, Technology, Engineering, and Math (STEM) increase each year, qualified candidates for these careers continue to fall short. This is known as the STEM Gap. This gap represents a great opportunity for the students in your classrooms today, to become the innovators of the future.

South Carolina Inspire Science helps students build innovative thinking skills by empowering them to explore and learn from our world's amazing natural phenomena in exciting, hands-on ways.



By fostering student's innate **curiosity**, you elevate their critical thinking.



By facilitating hands-on **investigation**, you deepen their understanding.



By encouraging creative problem-solving, you inspire their **innovation**.

A new generation of innovators is growing up right now. Are you ready to inspire?

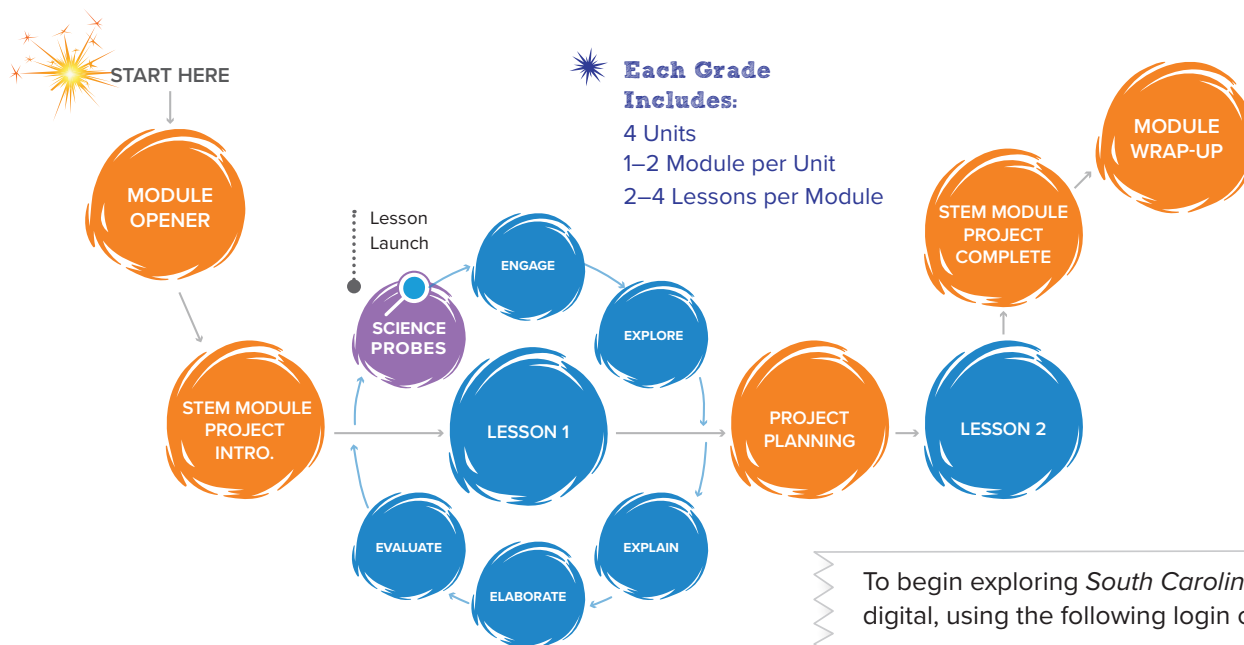
Meeting South Carolina College- and Career-Ready Science Standards

South Carolina College- and Career-Ready Science Standards and Next Generation Science Standards (NGSS) are new philosophies for K–12 Science education focused on helping you prepare students for career and college readiness.

That's why the *South Carolina Inspire Science* team has studied the new science standards, while testing ideas with teachers like you to create a user-friendly experience for both teachers and students.

User-Friendly Instructional Model

South Carolina Inspire Science provides the proven and research-driven 5E instructional model enhanced to align with the demands of three-dimensional, phenomena-driven learning.



To begin exploring *South Carolina Inspire Science* digital, using the following login credentials.

Go to my.mheducation.com

Username: **SCscienceK8**

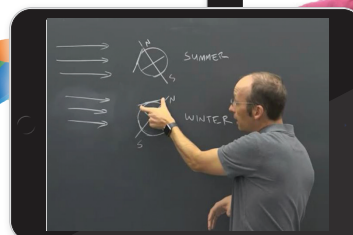
Password: **SCscienceK8**

Professional Learning When You Need It

South Carolina Inspire Science includes an expansive library of relevant, self-paced, professional learning courses to support implementation, instructional progression and mastery—all available 24/7.



**Page Keeley,
M.Ed.**



Dr. Rhett Allain



Encounter the Phenomenon

South Carolina Inspire Science places student engagement at the forefront. Each 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 the connections to real-world applications with the STEM Career Connections and STEM Module Projects.

Phenomena-Driven Learning

South Carolina Inspire Science places natural phenomena at center stage within each module and lesson. By introducing an anchoring phenomenon in each module, supported by lesson-level investigative phenomena, students dig deep into key science and engineering concepts.



Designed for the Digital Generation

South Carolina Inspire Science is infused with highly engaging interactive experiences designed for today's digitally-native students. Interactive simulations, 360 videos, 3D models, learning-based games, and immersive science content videos will keep students' attention and inspire them to explore and discover.

Inquiry-Based Approach

Inquiry-driven learning helps students understand how to ask deeper questions and think critically as they answer science questions and design creative solutions to real-world problems. With *South Carolina Inspire Science*, students learn how to become great investigators through a variety of inquiry activities that connect to the Science and Engineering Practices.



Supporting Hands-On Learning

South Carolina College- and Career-Ready Science Standards require a marked increase in inquiry-based learning, resulting in more hands-on activities. This shift makes for a more exciting classroom experience, but it also comes with new logistical challenges that can be difficult to manage. With *South Carolina Inspire Science*, we've provided a number of support structures to help make this shift more manageable and more fun for you and your students.

The Inquiry Spectrum

The *South Carolina Inspire Science* Inquiry Spectrum provides flexible options to adjust the inquiry level to align with the learning needs of each student.

Inquiry Spectrum

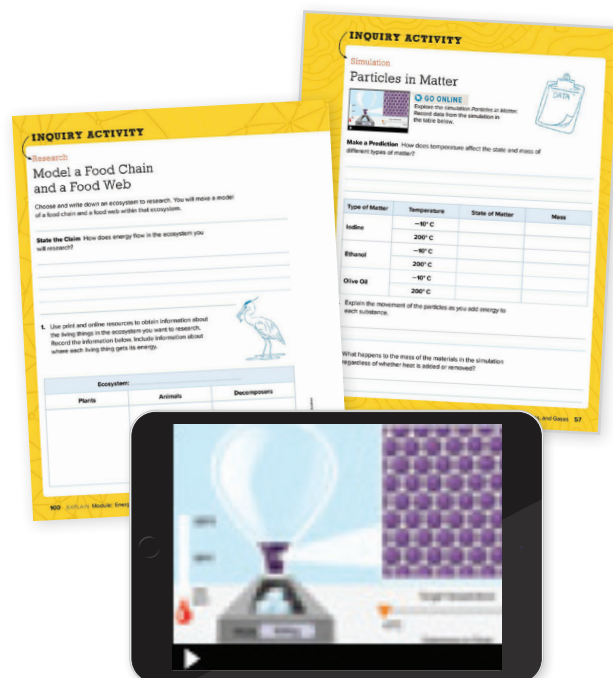
Structured Inquiry
In this Inquiry Activity, students are given a question to investigate and procedure to follow.

Guided Inquiry
To make this a guided inquiry, present students with the same question to investigate and make a prediction on, but have students come up with materials and a procedure to investigate the question.

Open Inquiry
To make this an open inquiry, have students investigate one of their own questions based on the phenomenon. Allow students time to plan how they will investigate their question and carry out their investigation.

Engaging Inquiry Activities with Options

Every lesson in *South Carolina Inspire Science* offers multiple inquiry-based activities, along with techniques that scientists and engineers use in the real world. These inquiry activities include differentiation strategies (through the Inquiry Spectrum), and various pacing options ranging from simple investigations to complex lab explorations.



Ensure Equity

South Carolina Inspire Science fosters deep learning for every student by providing built-in supports for differentiated instruction, English Language (EL) strategies, and language-building resources at the module level and at multiple points throughout each lesson. Each student is given an opportunity to construct explanations of phenomena and use evidence-based logic to make connections, building critical skills at every step.

Differentiated Instruction

Robust differentiation support is found within the Teacher's Edition, as well as through leveled informational text resources such as the leveled readers and INVESTIGATOR articles. Support with practical strategies is found at the module and lesson level at multiple points. Leveled text allow students access to the same content for a classroom of students' with varied reading abilities.

Advanced Learners and Gifted Learners

Instruction should focus on adding depth and complexity in understanding how the structure and function of young animals helps them grow and survive and how humans mimic animal structures to design solutions for a problem.

DOK 3 Strategic Thinking Have students research and make a list of birds that are unable to fly, such as the penguin, kiwi, or ostrich. Then have them create a KWL (Know, Want to Know, Learn) chart. Allow them to do independent research to answer their questions and complete their charts. Make sure students find out why their bird cannot fly.

DOK 4 Extended Thinking Have students research biomimicry. Have them write a definition for the word, and then brainstorm or research examples. Then have students choose a special animal structure (such as the silk of a spider) and imagine how they can use it to solve a problem. Have them write a paragraph to describe the problem and how they would solve it.

Literacy Support: Using the Leveled Reader
Use the Leveled Readers to enable students to further develop their literacy skills through science.

- Fiction: Engages students in key concepts
- Nonfiction: Focuses on real-world topics; Makes informational text accessible to all learners
- Also available in print and online.

English Language Support

Rooted in learning sciences research, *South Carolina Inspire Science* applies the best instructional practices for teaching EL students. Each module and lesson has scaffolded activities that offer students of any level of English language proficiency the opportunity to engage in academically challenging science and engineering content while supporting language acquisition.

English Language Support

Home Language Support Build on and make use of students' home language to support their science learning in English. Teach students how to identify and use cognates to create linguistic bridges between school science and home to capitalize on emerging bilingualism.

EMERGING

Cognate Strategies Demonstrate the meaning of cognates by writing the word animal on the board. Ask students to tell you what the word means using words, phrases or gestures. Say and point to the word animal and have students repeat. Then have students say the word in their home language. Guide students to notice that the pronunciation is a little different but the spelling is not different. Write animals and animals on the board. Guide students to notice the differences in spelling and pronunciation in the plural form. There are many cognates in this module. Ask students to keep a list of the words they see that are similar in their home language.

EXPANDING

Cognate Strategies Explain the meaning of cognates by writing the words animals and animales on the board. Ask students to tell you the meaning of the words. Then support students in finding the differences and similarities in sounds and letters. For example, both words have the same spelling except that one ends in s and the other in os. Ask them to write animals and say animales. Note: not a lot of different or pronunciation. Cognates in this module. Ask students to keep a list of the differences in pronunciation as they see them.

BRIDGING

Cognate Strategies Ask students to tell you if they know what a cognate is, i.e. a word that looks similar, sounds similar, and shares a meaning across some languages. Have students read the title of the module to find the cognate, animal. Have them tell you the word in their home language (animal) and give you a definition of the word in English. Do not use the word animal.

Cognates
Cognates are words in two different languages that share a similar meaning, spelling, and pronunciation. Review differences in spelling and pronunciation of these terms with your Spanish-speaking English Learners.

mammal	insect	reptile
mamífero	insecto	reptil
amphibian	protection	signal
anfibio	protección	señal
armadillo	zebra	lion
armadillo	cebra	león

Assessment Strategies

Ensuring students are well prepared for the state-wide tests can seem daunting, but with *South Carolina Inspire Science's* next generation assessment tools, in partnership with Measured Progress (STEM Gauge) and the *South Carolina Inspire Science* Three-Dimensional Guide, you'll know what to expect and how to prepare your students for success with mastery of the Performance Expectations.

Online Assessment Center

GO ONLINE

CER Framework

The Claim, Evidence, Reasoning (CER) framework in *South Carolina Inspire Science* ensures every student is engaged in rigorous scientific inquiry and argument from evidence.

MAKE YOUR CLAIM

What makes an object move faster and farther?

Make a claim about what causes an object to move faster and farther.

CLAIM
I think an object's motion will _____ when height is added.

EVIDENCE
The evidence I found in the _____ included _____.

REASONING
My reasoning for my claim is _____.

You will revisit your claim to add more evidence later in the lesson!

EXPLORE Lesson 2 Forces Can Change Motion 27



Designed to Fit Any Classroom

At McGraw Hill, we understand that different classrooms have different needs for tactile and digital resources. We know those needs can change day to day. *South Carolina Inspire Science* is designed to fit all of your resource needs through a wide array of print, digital, and hands-on materials so you have access to all of the great learning resources in any form you'd like, whenever you need them.

Print Resources

Every *South Carolina Inspire Science* print book includes a digital companion to compliment the digital interactive resources such as simulations, 3D models, videos, and learning-based games.

TEACHER'S AND STUDENT EDITION (Grades K–5, Four Units Per Grade)



SCIENCE READ ALOUDS (Grades K-1)



INVESTIGATOR ARTICLES (Grades 2-5)



LEVELED READERS (Grades K-5)



Digital Resources

In addition to the digital versions of each print book, *South Carolina Inspire Science* provides a digital experience, in both English and Spanish, designed with advantages for both you and your students, including innovative interactives, videos, simulations, learning-based games, personal tutors, and more.



The logo for South Carolina Inspire Science. It features a white outline of the state of South Carolina to the left of the text "South Carolina". To the right of "South Carolina" is a white starburst graphic. Below "South Carolina" and to the right of the starburst is the word "Inspire" in a large, bold, white sans-serif font. To the right of "Inspire" is the word "Science" in a slightly smaller, bold, white sans-serif font. The background is a dark blue with a pattern of light blue concentric circles of varying sizes, resembling ripples or a molecular structure.

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