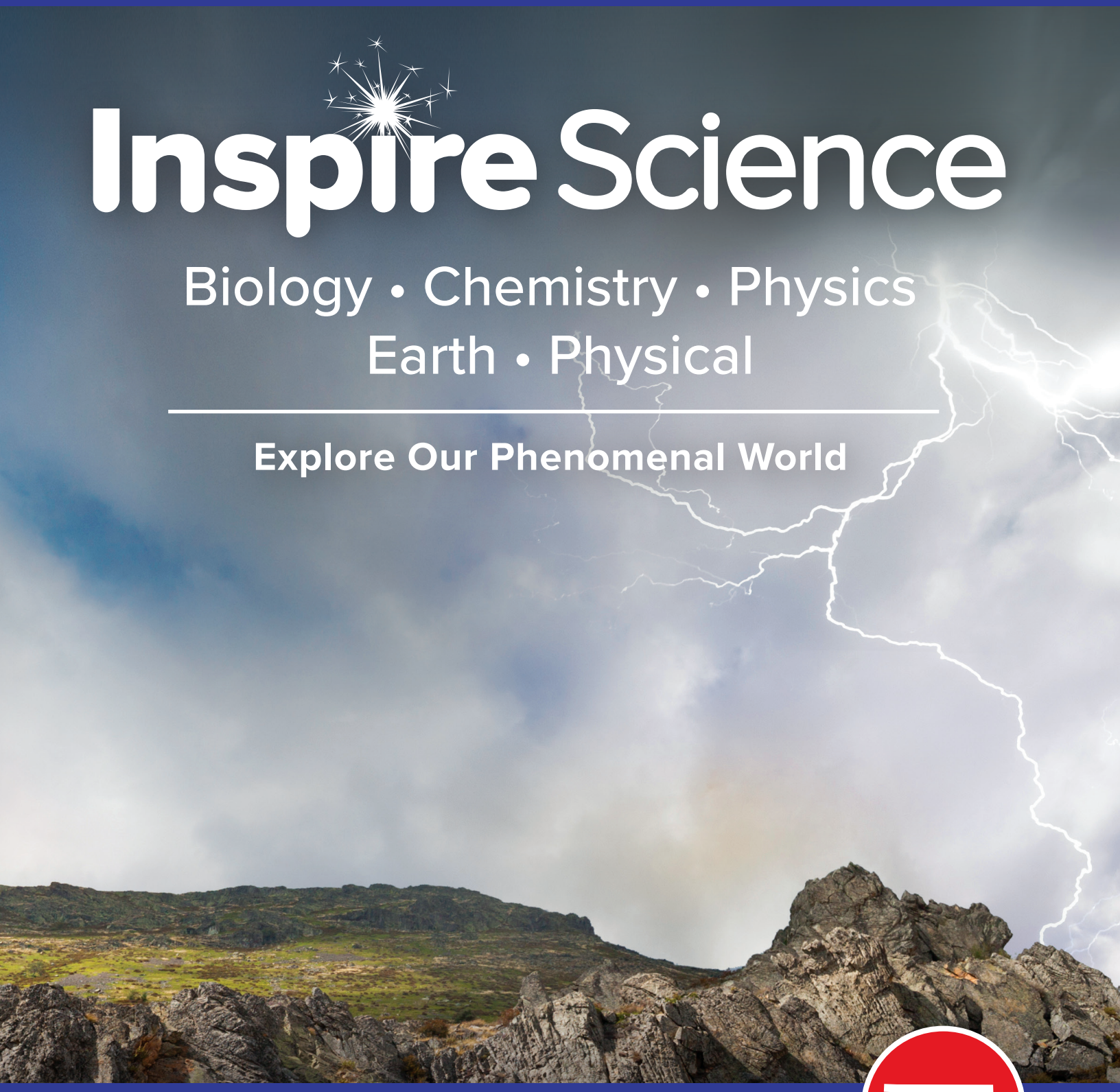
Mc Graw Hill

Program Overview
High School Series

Inspire Science

Biology • Chemistry • Physics
Earth • Physical

Explore Our Phenomenal World



mheonline.com/oklahoma

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.

Inspire Science High School series 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.**

Meeting Oklahoma Academic Standards for Science

Oklahoma Academic Standards for Science (OAS) 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.

The *Inspire Science High School* series team has been studying the standards for years, while testing ideas with teachers like you to create a user-friendly experience for both teachers and students.

Instructional Model

Each *Inspire Science High School* series's unit phenomenon sets the stage for the STEM Unit Project. Each module within the unit supports the STEM Unit Project with phenomena-driven 5E lessons to support a variety of learning pathways.

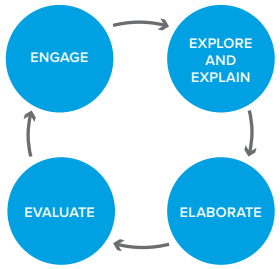
UNIT OPENER

- Encounter the Phenomenon
- STEM Unit Project Launch
- Formative Assessment Science Probe

MODULE OPENER

- Encounter the Phenomenon
- CER Claim, Evidence, Reasoning

LESSON



MODULE CLOSE

- Revisit the Phenomenon
- Three-Dimensional Assessment
- CER Claim, Evidence, Reasoning
- Labs/Projects
- Revisit STEM Unit Project
- Module Test
- Vocabulary Review

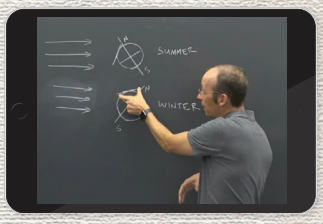
UNIT CLOSE

- **Go Online**
- Complete STEM Unit Project

For more information on the *Inspire Science* High School series Instructional Model see the Program Guide

Professional Learning When You Need It

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



Dr. Rhett Allain

Page Keeley, M.Ed.

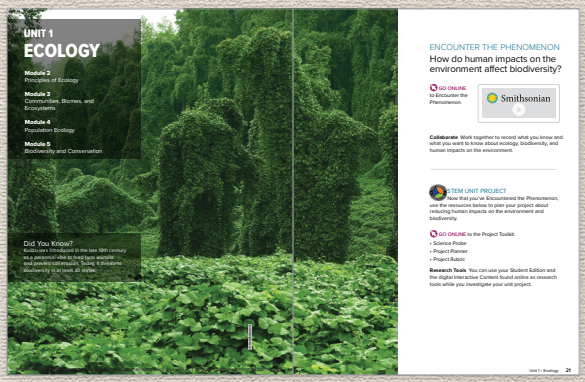
Encounter the Phenomenon

The *Inspire Science High School* series places student engagement at the forefront. Each unit, 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

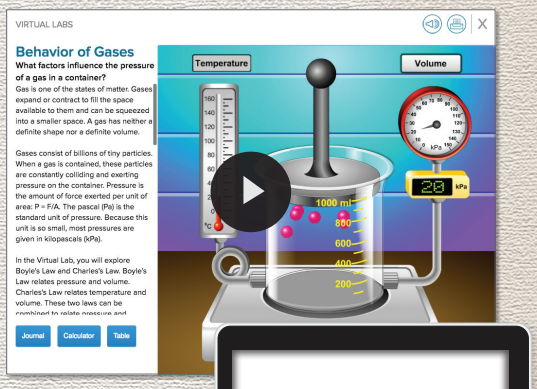
The *Inspire Science High School* series places natural phenomena at center stage within each module and lesson. By introducing an anchoring phenomenon in each module, supported by lesson-level investigative phenomena, students dig deep into key science and engineering concepts.

ENCOUNTER
THE PHENOMENON



Designed for the Digital Generation

The *Inspire Science High School* series 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.



Virtual Labs

Smithsonian Videos

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 the *Inspire Science High School* series, students learn how to become great investigators through a variety of inquiry activities that connect to the Science and Engineering Practices.

Hands-On Learning

Oklahoma Academic Standards for Science (OAS) and Next Generation Science Standards (NGSS) 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 the *Inspire Science High School* series, we've provided a number of support structures to help make this shift more manageable and engaging for your students.

Online Resource Planner

The *Inspire Science High School* series Online Resource Planners make preparing easier than ever — listing out all Module Resources and Suggested Pacing to clearly identify what resources is available in each module and lesson.

Online Resources Planner

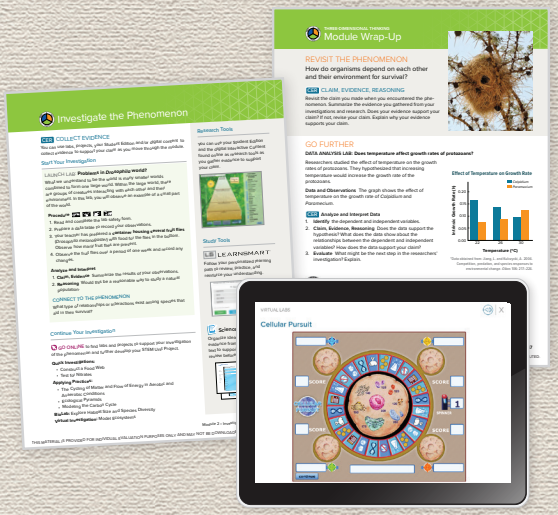
GO ONLINE to curate your presentations, interactive content, additional resources, and media library, and find answer keys, materials lists, rubrics, differentiated instruction, and more.

Module Resources	Module Launch	Lesson 1	Lesson 2	Lesson 3	Module Close
INSTRUCTIONAL RESOURCES					
Student Edition	•	•	•	•	•
Teacher Edition	•	•	•	•	•
Teacher Presentation (PowerPoint)	•	•	•	•	•
Science Notebook	•	•	•	•	
Reading Essentials	•	•	•	•	
LearnSmart		•	•	•	
Math Handbook	•	•	•	•	•
Science & Engineering Practices Handbook	•	•	•	•	•
LABS, INVESTIGATIONS, AND PROJECTS					
Launch Lab	•				
Quick Investigation			•	•	
Labs		•			
PBL/Applying Practices			•	•	
ASSESSMENT					
Module Pre-Test	•				
Lesson Check		•	•	•	
Module Vocabulary Practice					•
Module Test					•
MEDIA & OER					
Virtual Investigation		•			
Personal Tutor				•	
PhET Simulation					
Beyond the Classroom: Google Expedition				•	
SpongeLab	•	•	•	•	•

Suggested Pacing (min)	Module Launch	Lesson 1	Lesson 2	Lesson 3	Module Close
Teacher-Facilitated Pathway	45	100	100	90	45

Engaging Inquiry Activities

Every lesson in the *Inspire Science High School* series 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.



Beyond the Classroom

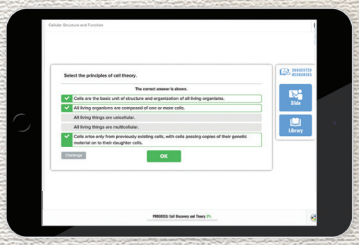
The *Inspire Science High School* series provides an engaging experience Beyond the Classroom. Beyond the Classroom provides an hands-on approach to learning with before, during, and after expedition activities.

Ensure Equity

The *Inspire Science High School* series fosters deep learning for every student by providing built-in supports for differentiated instruction, 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.

LEARNSMART®

LearnSmart® with *SmartBook*® transforms the way students read. A proven, adaptive learning program, LearnSmart individualizes learning to help students study more efficiently and retain more knowledge.



CER Framework

The Claim, Evidence, Reasoning (CER) framework in the *Inspire Science High School* series — which becomes increasingly sophisticated from K–12 — ensures every student is engaged in rigorous scientific inquiry and argument from evidence.

CER MAKE YOUR CLAIM

Humans are not the only organisms that depend on others for their needs. All living things are interdependent. Their relationships are important to their survival.

English Language Support

Rooted in learning sciences research, the *Inspire Science High School* series applies the best instructional practices for teaching EL students in alignment with the ELD standards. 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.

EL Support

Writing ELD PI.9/10.1

Guide students in exchanging information and ideas to discuss what kind of animal is a predator.

EMERGING LEVEL Support students in asking and answering yes-no and wh- questions about what animals are predators. Provide sentence frames such as: What kind of _____ [animal] is a _____ [predator]? Is _____ [a rattlesnake] a predator?

EXPANDING LEVEL Support students in following turn-taking rules and asking relevant questions. Provide sentence frames: What kind of animal _____ [is a predator]? / I think _____ [carnivores are predators]. / Yes, I agree. They _____ [eat other animals].

BRIDGING LEVEL Have students contribute to a group discussion by asking and answering relevant, on-topic questions. EX. What kind of animal is a predator? / Predators are carnivores. For examples, a rattlesnake is a predator. / Why do you think so? / A predator eats other animals and rattlesnakes eat other animals. / That's true.

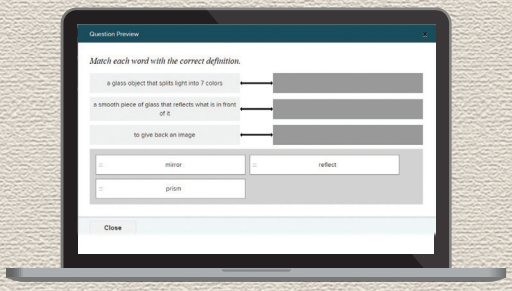
Lesson 2 • Flow of Energy in an Ecosystem **37**

Next Generation Assessments

Ensuring students are well prepared for the standardized can seem daunting, but with the *Inspire Science High School* series next generation assessment tools, in partnership with Measured Progress (STEM Gauge), 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



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. The *Inspire Science High School* series 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

The *Inspire Science High School* series combines online and print resources to support student inquiry into real-world phenomena.

TEACHER'S AND STUDENT EDITION

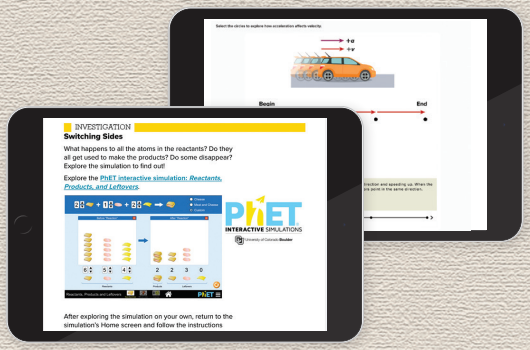
*Student Editions available in Spanish, online or in print through CREATE™

Available in Spanish

Available in Spanish

Digital Resources

In addition to the digital versions of each print book, the *Inspire Science High School* series provides a digital experience designed with advantages for both you and your students, including innovative interactives, videos, simulations, virtual labs, personal tutors, and more.



SYNC BLASTS™

**Available for Additional Purchase.*

SyncBlasts™ provides reading and writing assignments that present science and current event topics relevant to students' lives and their world. Providing a variety of rich multimedia—including Preview Videos, links to Case Studies, Explainer Videos, and The Point News Show—*SyncBlasts* are a smart way to engage students.

See the Digital Experience section of the Program Guide to learn more about these engaging interactives.

Open Educational Resources

The *Inspire Science High School* series offers the opportunity to curate your own content. With our partners such as The Smithsonian, SpongeLab, and PhET you are able to find the resources you need when you need them.

Smithsonian

SPONGELAB
A GLOBAL SCIENCE COMMUNITY

PhET
INTERACTIVE SIMULATIONS
University of Colorado Boulder

Let Them Dream Big

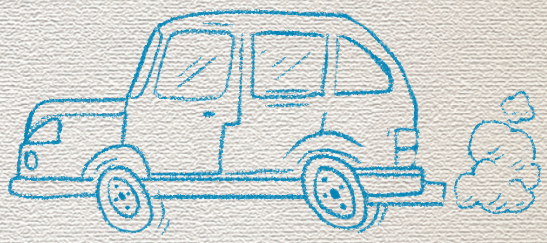
With the emphasis the *Inspire Science High School* series places on curiosity, investigative skills, and innovative thinking, just imagine what the students in your classroom today might dream up to improve our lives someday.

Innovative Solutions for Global Warming

New solutions to reduce carbon emissions and clean up the carbon from our atmosphere?

Practical fuel cell transportation to power cars from water, emitting only steam?

An influential role in global carbon emissions management?



Innovations in Health Care and Disease Management

Advances in cellular immunotherapy treatments to leverage our own immune systems to stop cancer and diseases in their tracks?

Advances in using robotics for healing and repairing the human body?

New ideas for identifying and stopping diseases before they happen?

Innovations for Natural Resources

Practical ways to harness energy from the ocean waves?

Creative solutions to food creation and distribution to address world hunger?

Inspire Science

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