

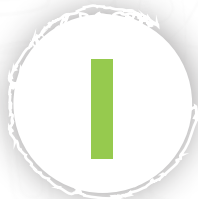
CALIFORNIA

elevate^{science}

It's the science of doing!

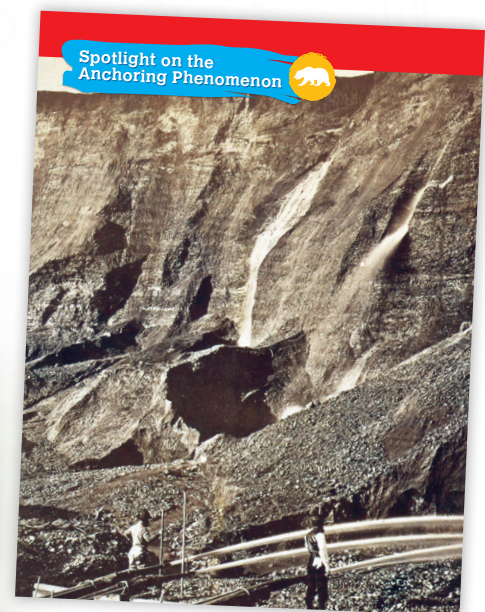
Let students “figure out” phenomena with hands-on, open-inquiry investigations, and problem-based learning experiences. *California Elevate Science* immerses students in anchoring, investigative, and everyday phenomena to support three-dimensional learning.

Look for these key features:



Spotlight on the Anchoring Phenomena

Students are introduced to the anchoring phenomena at the beginning of each of the four instructional segments. This is followed by the [California Spotlight](#) where students are introduced to local California phenomena and asked to identify the problem.



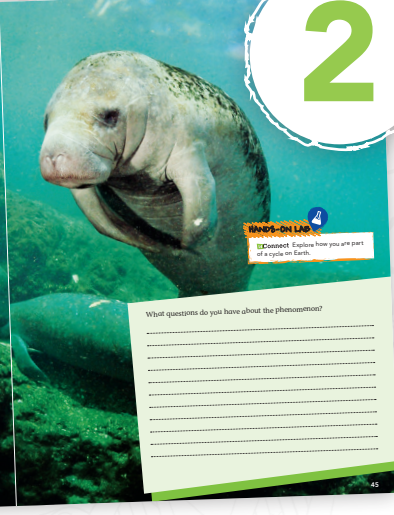
Experience **IT!**

California Elevate Science is the science of doing.

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TOPIC

Ecosystems



Investigative Phenomenon
How do plants matter how matter and energy cycle through an ecosystem?

MS-LS-1 Analyze and compare data to provide evidence for predicted trends in population, extinction, and speciation of organisms in an ecosystem.

MS-LS-2 Construct a model to illustrate the cycling of matter and flow of energy through an ecosystem.

SP.6C Construct a model for describing an individual organism and its interactions with the environment and other organisms, showing the flow of matter and energy through the system.

SP.8C Analyze and evaluate data to support an explanation, model, or prediction about a phenomenon through testing and prediction that are required for the phenomenon.

How are these manatees well suited to their environment?

MINNYS-ON-LAP

uConnect Explore how you are part of a cycle on Earth.

What questions do you have about the phenomenon?

2

Investigative Phenomena

Students start to gather evidence. They “figure out” the **anchoring phenomenon** by deeply exploring the Investigative Phenomenon in each topic. They begin connecting what they see, what they know, and what questions they still need to answer.

3

uConnect Lab

Students engage immediately with the **Investigative Phenomenon** through a hands-on, open inquiry experience. These labs are quick, convenient, and easy to implement. They offer a way to see the phenomenon live and in action!

Name _____ Class _____ Date _____

uConnect Lab

Every Breath You Take

Are you part of a cycle of matter on Earth?

Materials (per pair)

- small mirror

Procedure

1. Hold a small mirror a few centimeters from your mouth.
2. Exhale onto the mirror.
3. Observe the surface of the mirror.
4. Record your observations.

Analyze and Interpret Data

- 1. Interpret Data** What can you infer is the substance that forms on the mirror? Where did this substance come from?

- 2. Apply Scientific Reasoning** How is the water vapor in your breath evidence for part of a cycle? (Hint: Consider how atoms are conserved as matter changes from liquid.)

- 3. Develop Models** Use the space below to draw a model that shows how water from your lungs to the atmosphere.

Labs Found Online

Quest PBL

What do you think is causing Pleasant Pond to turn green?

Figure It Out In 2016, algal blooms turned bodies of water green and slimy in California, Florida, Utah, and many other states. These blooms put people and other inland bodies of water, known as limnologists, are working to predict and prevent future algal blooms. In this problem-based Quest activity, you will investigate an algal bloom at a lake and determine its cause. In labs and digital activities, you will apply what you learn in each lesson to help you gather evidence to solve the mystery. With enough evidence, you will be able to identify what you believe is the cause of the algal bloom and present a solution in the Findings activity.

INTERACTIVITY
Mystery at Pleasant Pond

NBC LEARN VIDEO

After watching the above Quest Kickoff Video, which explores the effects of a toxic algal bloom in Lake Erie, think about the impact that shutting down the water supply might have on your community. Record your ideas below.



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Quest CHECK-IN

IN LESSON 1

What are some possible causes of the algal bloom in the pond? Evaluate data to identify possible explanations for the problems at the pond.

INTERACTIVITY
Suggestion Activities

Quest CHECK-IN

IN LESSON 2

How do nutrients affect organisms in an aquatic environment? Investigate how the recycling factors can affect the organisms in a pond.

INTERACTIVITY
Nutrients and Aquatic Organisms

Quest CHECK-IN

IN LESSON 3

How are cycles of matter and energy affected by environmental change? Explore the cycling of matter and the flow of energy among organisms in a pond.

INTERACTIVITY
Matter and Energy in a Pond

Quest FINDINGS

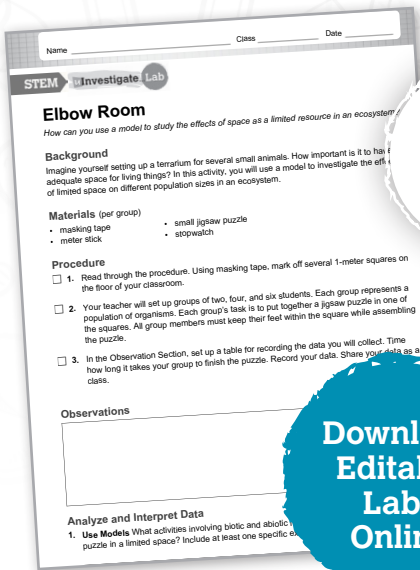
Complete the Quest!

Write a news story explaining what you think is the cause of the algal bloom in the pond. Tell how it has impacted the ecosystem and include a proposal for restoring the pond.

INTERACTIVITY
Reflections on a Pond

Quest PBL

Invite students to follow the trail of hands-on and digital experiences to “Figure It Out” in the **Quest Problem-Based Learning** activity.



Download Editable Labs Online

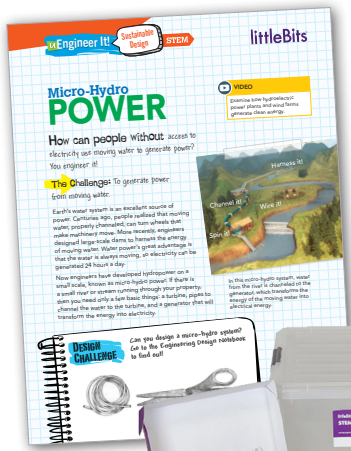
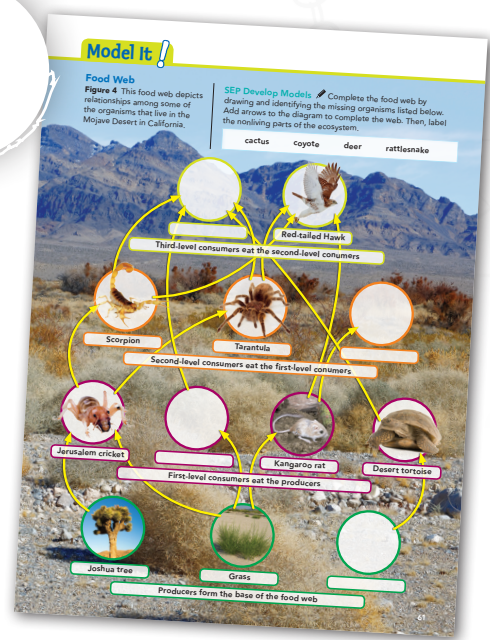
Everyday Phenomena

Every lesson provides an opportunity for students to experience **Everyday Phenomenon** through hands-on, open inquiry experiences called **uInvestigate Labs**. These labs scaffold the mysteries of the investigative phenomena allowing students to engage in productive student discourse.

Literacy Skills

Students are supported and encouraged to comprehend science concepts with **Literacy Toolboxes**. While reading the chunked text, Literacy Toolboxes remind students to implement literacy skills at point of use and check for understanding. **Visual Literacy** tools including images, charts and graphs, provide a way for students to summarize their understanding of difficult science concepts in a visual context.

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Engineering and Design

uEngineer It! experiences are embedded in each topic to support the **Engineering and Design Process**. Extension Activities are developed in partnership with the award-winning littleBits™ company. Look for these leveled lab activities on Savvas Realize™ digital learning platform.



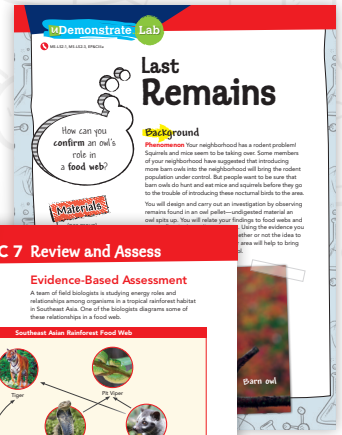
There's more



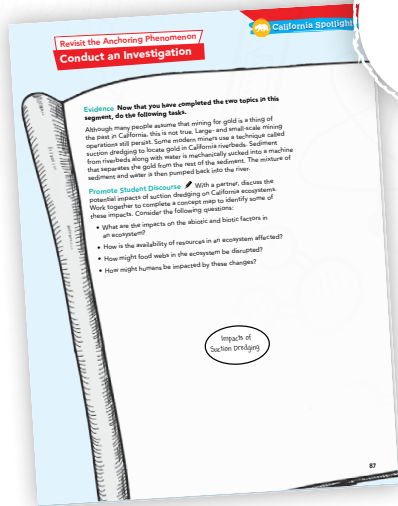
Robust Assessments

Students get to “show what they know” through the **Evidence-Based Assessment** and **uDemonstrate** performance-based experience. These assessments provide a new scenario and a new setting for students to apply what they “figured out” during their exploration of the Investigative and Everyday Phenomenon.

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Revisit the Anchoring Phenomenon

Students can revisit the California Spotlight to demonstrate their understanding of the entire segment by designing a solution to the local and relevant problem.



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Rich Digital Resources

Visit [SavvasRealize.com](https://www.savvasrealize.com) to explore an abundance of digital resources that immerse students in phenomena through open-inquiry virtual labs, interactivities, presentations, and videos.



Go to [Savvas.com/CAScience](https://www.savvas.com/CAScience) to register for access to a demo account.

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