



2024 ALABAMA ADOPTION

Navigation Guide

Welcome to STEMscopes Science Alabama!

STEMscopes Science™ Alabama shifts the paradigm of traditional science instruction to student-centered, phenomena-based STEM learning. Based on the 5E instructional model and perfected with the invaluable insight of real-life educators, STEMscopes provides a carefully curated, rigorous curriculum that both challenges and sparks the curiosity of students all across Alabama. Be more than a science teacher: be a STEM teacher.

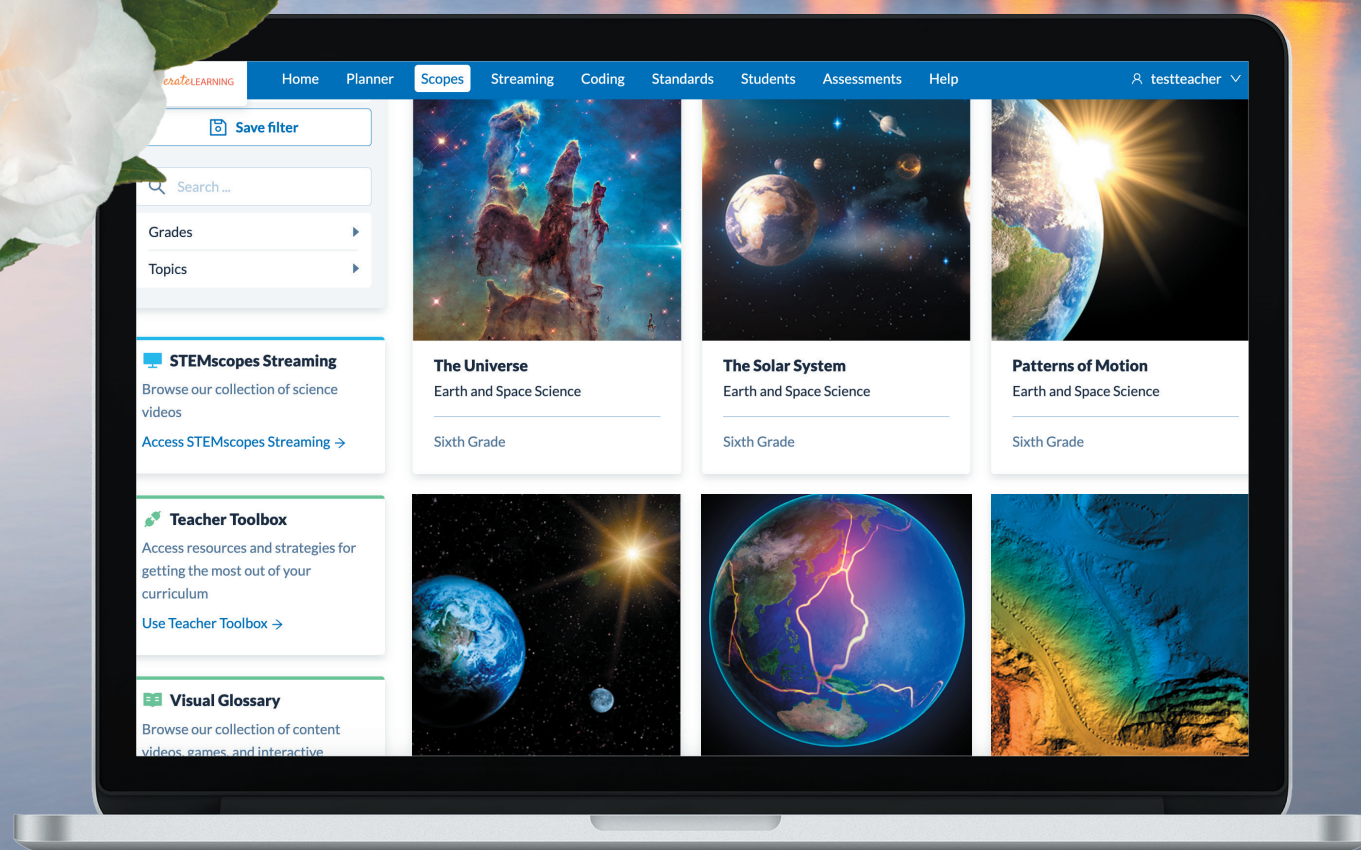
Use the credentials below and log in to review our program.



URL: acceleratelearning.com/alsciencelogin

Username: **testteacher**

Password: **testteacher**





Walk through our curriculum with this instructional video.

Navigating the Digital Curriculum

Main Navigation Bar

ESSENTIALS

View upcoming lessons and customized bookmarks on your dashboard

PLANNER

Create lesson plans and collaborate with fellow STEMscopes teachers

SCOPES (START HERE!)

Access all lesson content and teacher supports

STANDARDS

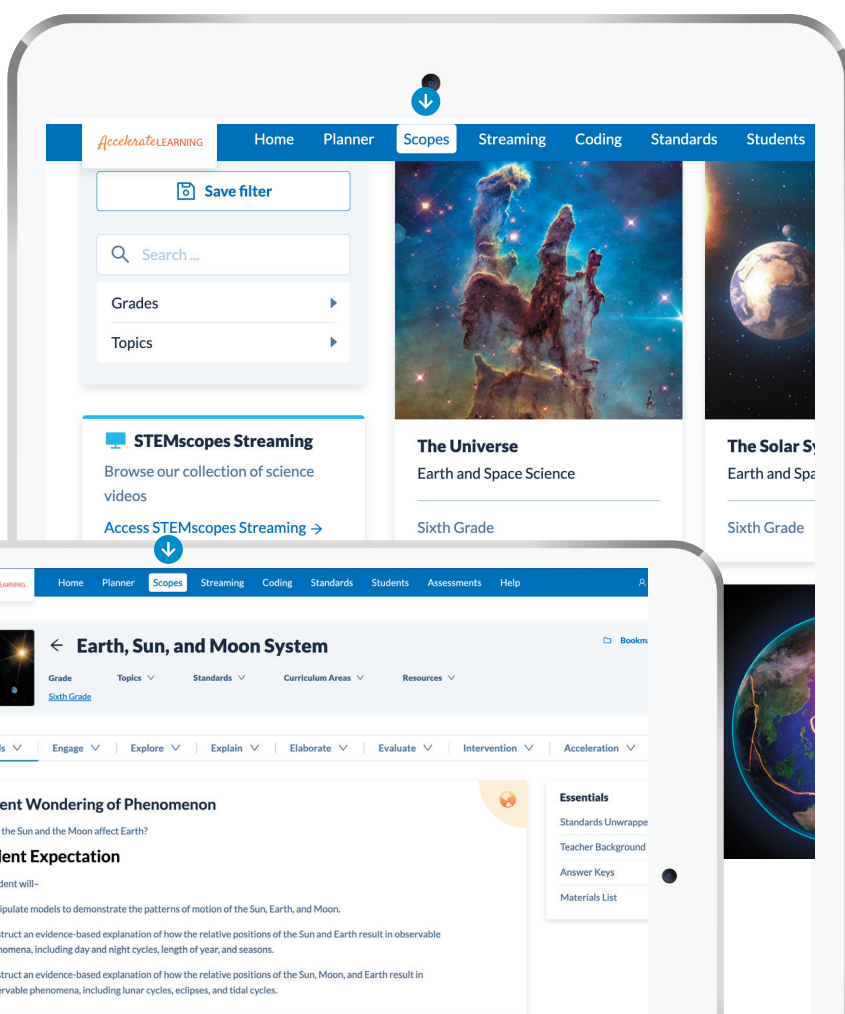
View a breakdown of the Alabama Academic Standards for Science

STUDENTS

Manage student accounts, create class groups, and monitor assignment progress and grades

MORE

Select from a wide variety of assessments, access eBooks, or get help



Scopes

STEMscopes Science Alabama is organized into chapters (scopes) and lessons (hands-on Explores) that build upon each other. Filter by grade, domain, or keyword to find a specific Scope.

A LOOK INSIDE A SCOPE →

After selecting a Scope (chapter), review the planning and instructional resources. The white toolbar at the top can help you access all the features and benefits of STEMscopes Science Alabama.

← Earth, Sun, and Moon System

Grade Topics Standards Curriculum Areas Resources

Sixth Grade

Essentials Engage Explore Explain Elaborate Evaluate Intervention

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Student Wondering of Phenomenon

How do the Sun and the Moon affect Earth?

Student Expectation

The student will-

- manipulate models to demonstrate the patterns of motion of the Sun, Earth, and Moon.
- construct an evidence-based explanation of how the relative positions of the Sun and Earth result in observable phenomena, including day and night cycles, length of year, and seasons.
- construct an evidence-based explanation of how the relative positions of the Sun, Moon, and Earth result in observable phenomena, including lunar cycles, eclipses, and tidal cycles.

→ ESSENTIALS

Click the **Essentials** button to access key materials that will help you prepare for the scope activities. These include standards, scope vocabulary, and a background explanation for new science teachers or teachers in need of a refresher.

→ ENGAGE

Engage marks the start of 5E learning. First, introduce your students to the Scope Phenomena, which guides student learning and gives students the opportunity to question what they don't yet understand. Your students revisit the Scope Phenomena throughout the scope to discuss ideas and revise their thinking. Next, allow your students to reflect on what they already know using the Accessing Prior Knowledge activity. This will help you identify students' background knowledge.

← Earth, Sun, and Moon System

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Engage

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Accessing Prior Knowledge - Earth, Sun, and Moon System

A brief probing activity to gauge students' prior knowledge before engaging in the inquiry process

Accessing Prior Knowledge - Earth, Sun, and Moon System

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Scope Phenomenon

Scope Phenomenon - Engage

← Earth, Sun, and Moon System

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Essentials Engage Explore Explain Elaborate Evaluate Intervention

Explore

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Explore 1: Activity - Moon Phases

First task in which students complete a rigorous, hands-on activity. Teachers will highlight how students interact with everyday phenomena that relate the investigative or anchoring phenomena to personally experienced situations.

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Explore 2: Activity - Eclipses

Second task in which students complete a rigorous, hands-on activity. Teachers will highlight how students interact with everyday phenomena that relate the investigative or anchoring phenomena to personally experienced situations.

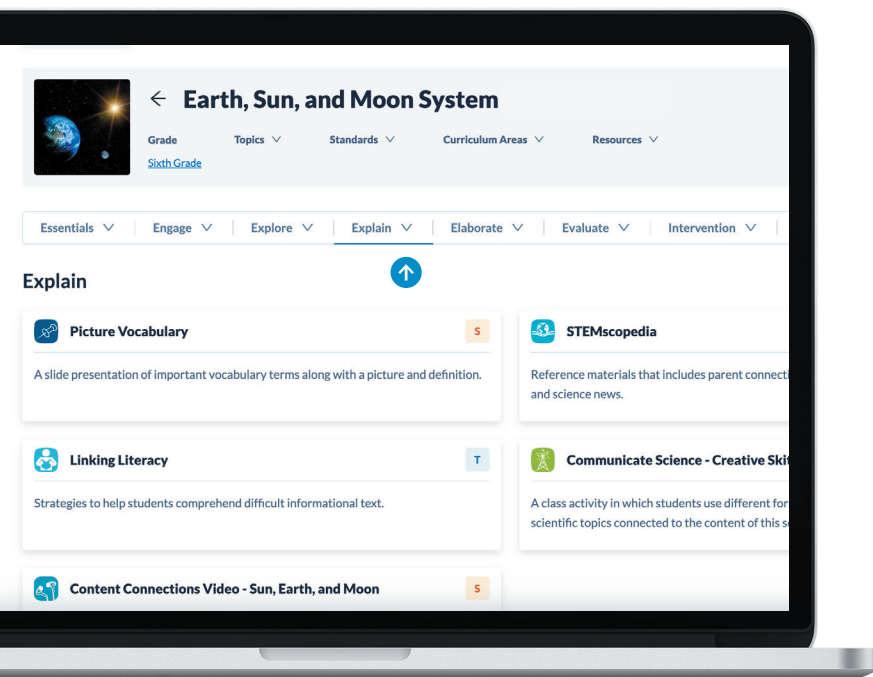
Explore 2: Activity - Eclipses

Second task in which students complete a rigorous, hands-on activity. Teachers will highlight how students interact with everyday phenomena that relate the investigative or anchoring phenomena to personally experienced situations.

→ EXPLORE

Explore is where you continue hands-on learning with exciting activities. Your students unpack a problem and determine the solution themselves. Whether they're designing a model, conducting an investigation, or gathering data, your students are now in control of their own learning, and that's where real science takes place.

Typically, a teacher will begin with an Explore activity and use Explain's resources to support students in making sense of their hands-on investigation. It is ideal to repeat this cycle, alternating between Explore and Explain.

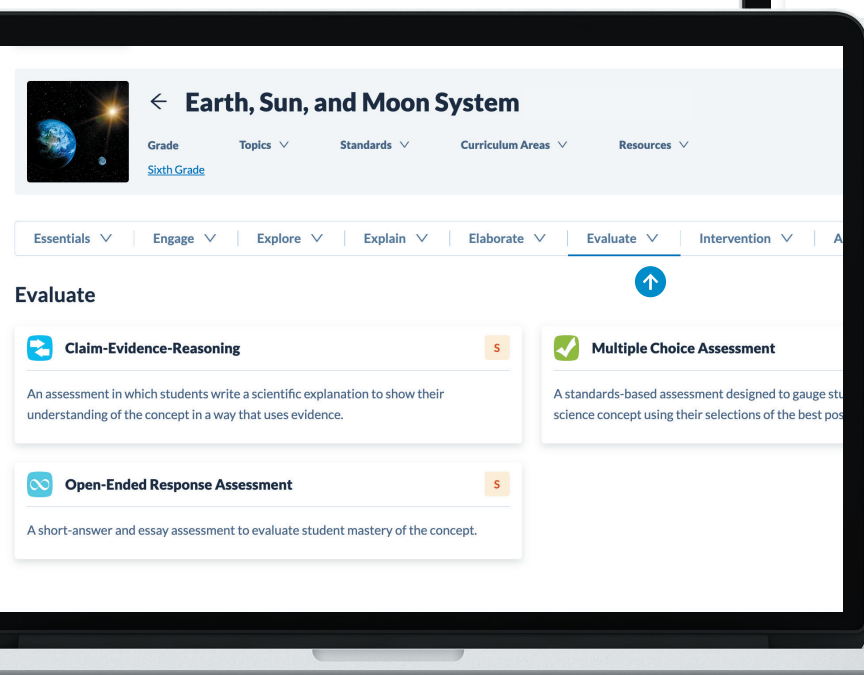
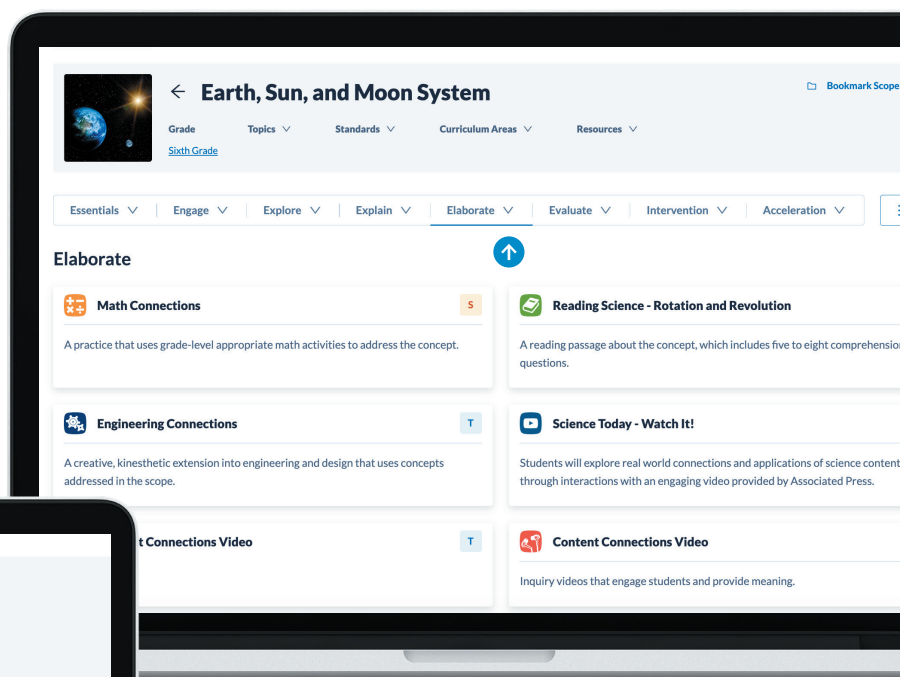


→ EXPLAIN

With **Explain**, your students dive even deeper into the scope's scientific concepts and phenomena, reinforcing what they've learned and discovered during their hands-on Explore activities. Students discover additional, detailed answers to their questions and expand their learning through differentiation based on their individual needs. Also during **Explain**, your students can connect their experiences with literacy through the STEMscopedia informational text and Picture Vocabulary.

→ ELABORATE

Elaborate is designed for enrichment, application, and cross-curricular connection. This is where students further build upon their previous learning, connecting learned concepts to themselves and the world around them through math, reading, engineering, simulations, and other valuable activities. These resources help students tie the Scope Phenomena together with real-world scenarios and events.

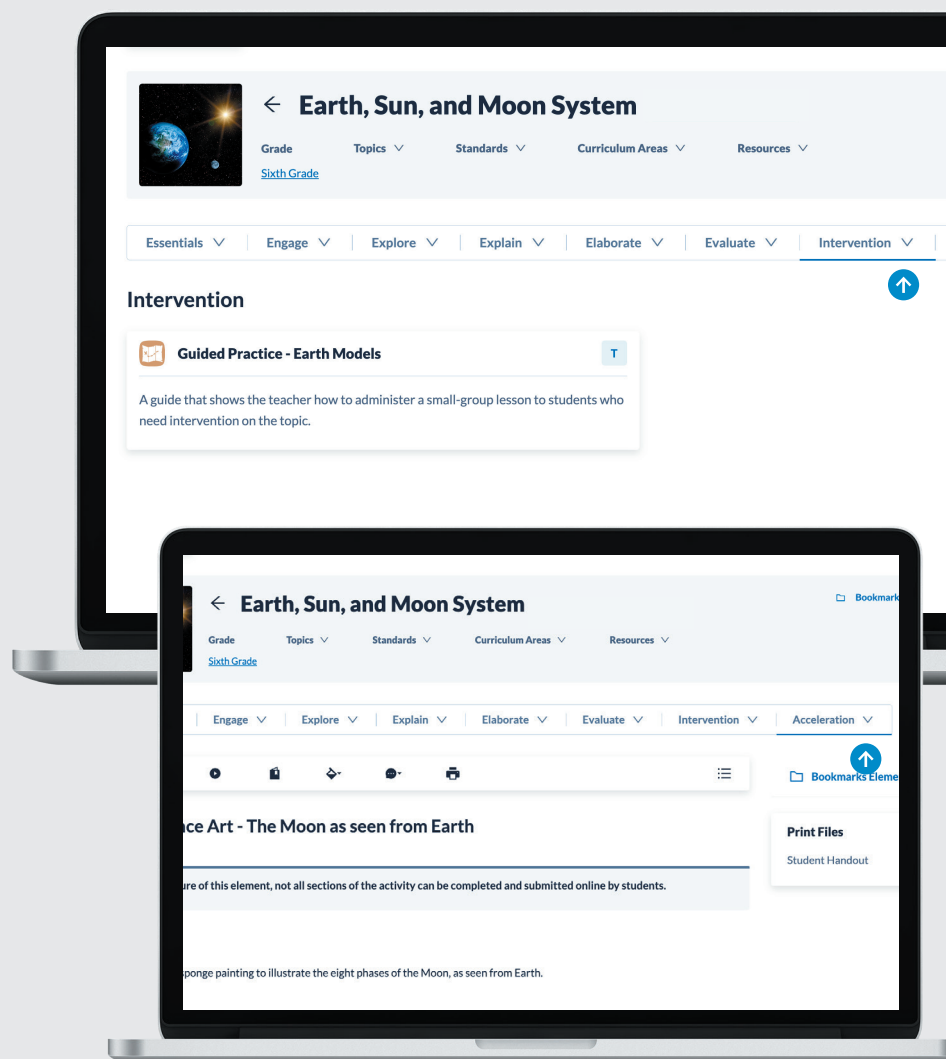


→ EVALUATE

Evaluate allows you to summatively assess student learning. We provide several tools for you to assess learning as students critically reflect on the scope's phenomena, including Claim-Evidence-Reasoning, open-ended response, and auto-graded multiple choice assessments.

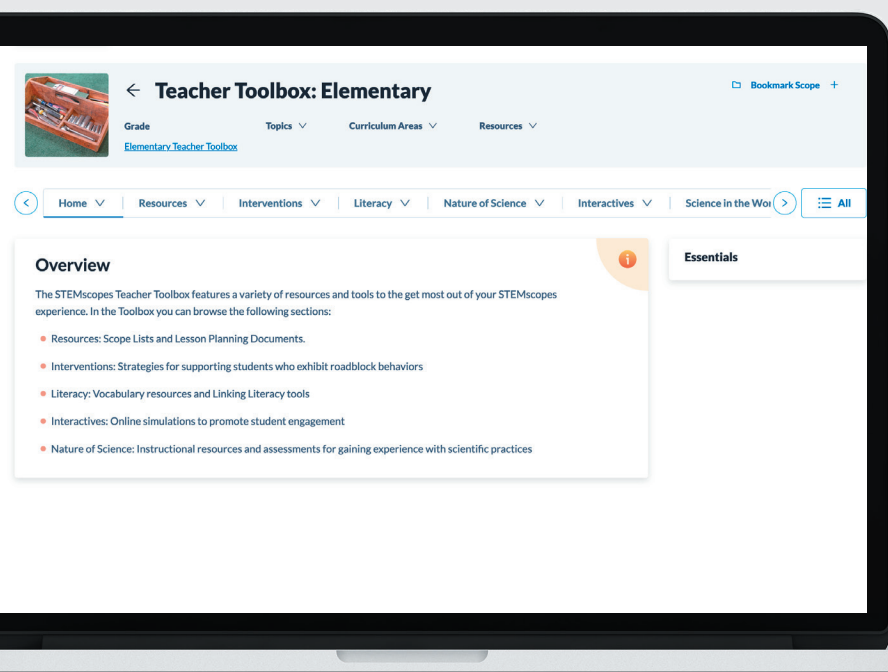
→ INTERVENTION & ACCELERATION

We believe **Intervention** and **Acceleration** are critical to the modern classroom. In addition to providing everything you need to complete a 5E lesson sequence, STEMscopes provides even more options for differentiated instruction. Whether a student requires guided and granular instruction, or is ready to take learning to the next level, we make sure every student has the supports needed.



→ TEACHER TOOLBOX

Our STEMscopes Teacher Toolbox features a variety of resources and tools to get the most of your STEMscopes experience. In the Toolbox you can browse scope lists, planning documents, intervention strategies, literacy tools, online simulations, nature of science resources, and science career connections.





ALABAMA
STEMscopes™
K-12 SCIENCE
POWERED BY ACCELERATE LEARNING