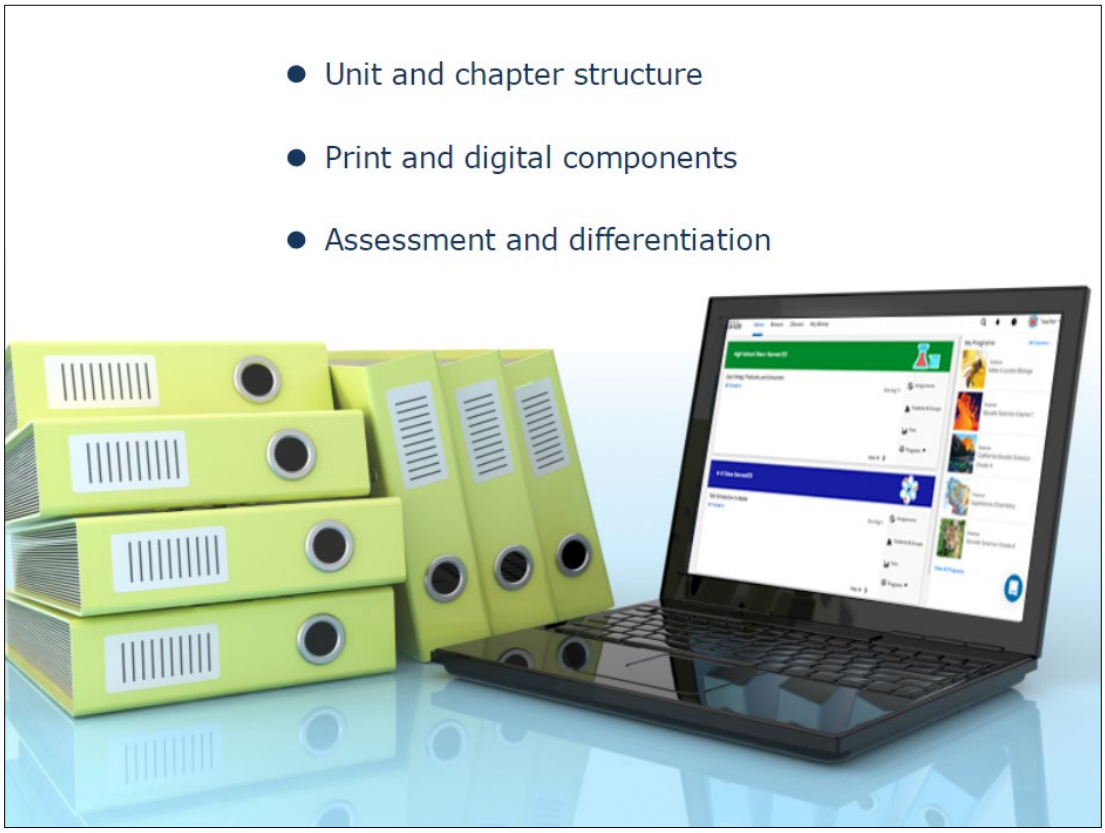
Elevate Science Middle Grades © 2019 Program Overview

Introduction



You've just received a package of books and materials for your new Elevate Science Middle Grades 2019 science curriculum, and are eager to jump right in. But there is so much to learn, and so little time! Don't worry; I'm here to help you get comfortable with your new program, so you can motivate every student to reach higher and go further!

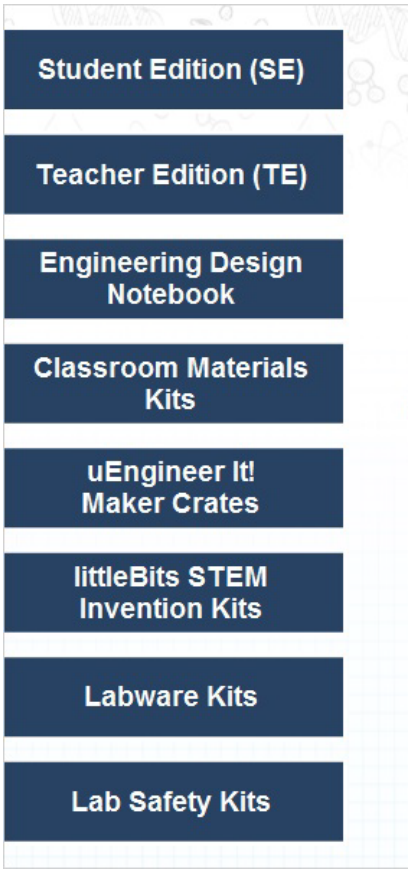
In this tutorial, we will take a look at the structure of the program, the blended print and digital components, and assessment and differentiation features to prepare students for the challenges of tomorrow.

Program Overview

Teaching science has never been more important! Elevate Science helps you transform learning, promote innovation, and manage your classroom. It elevates teaching to a new level, with student-centered activities based on new science standards.

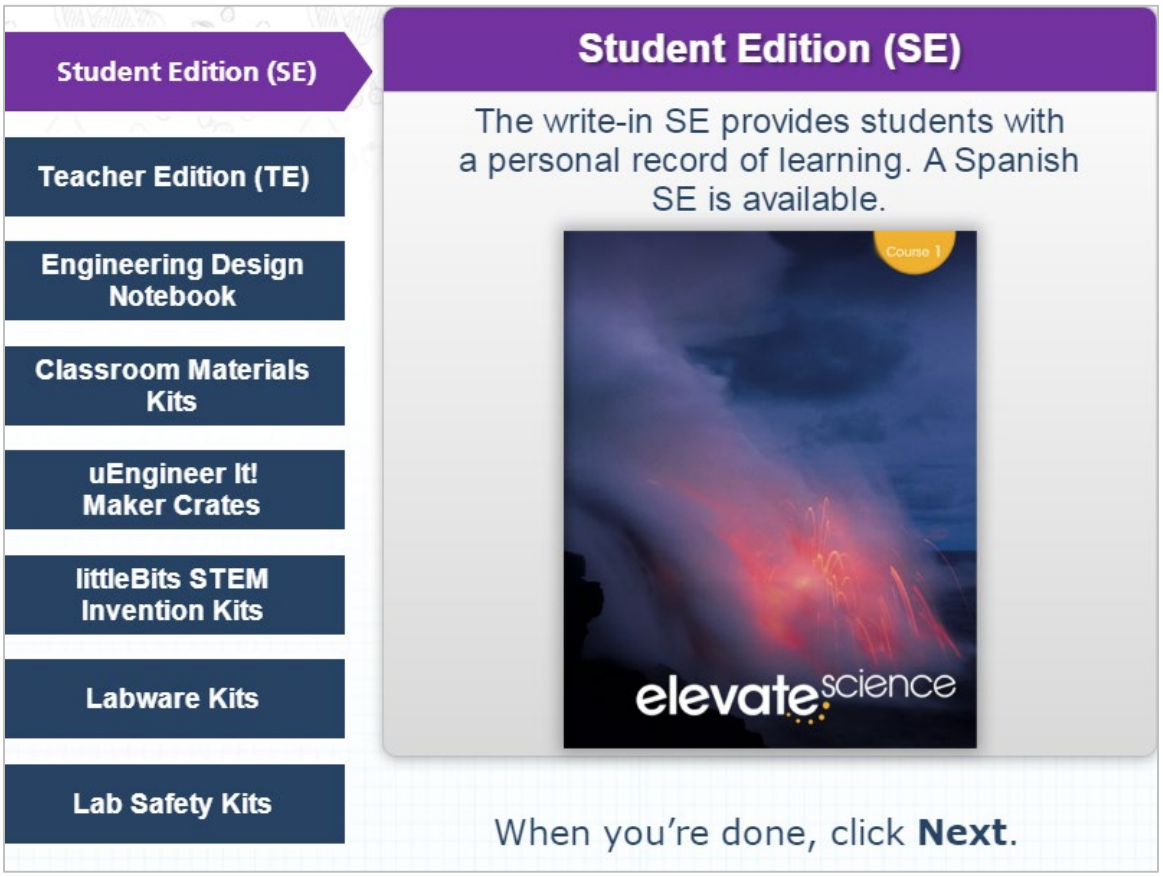
This innovative new program was developed for the modern science classroom with a focus on the new Next Generation Science Standards (or NGSS), STEM integration, and 21st century education. The blended print and digital curriculum immerses students in active study as they investigate and interact with natural phenomena.

Program Components



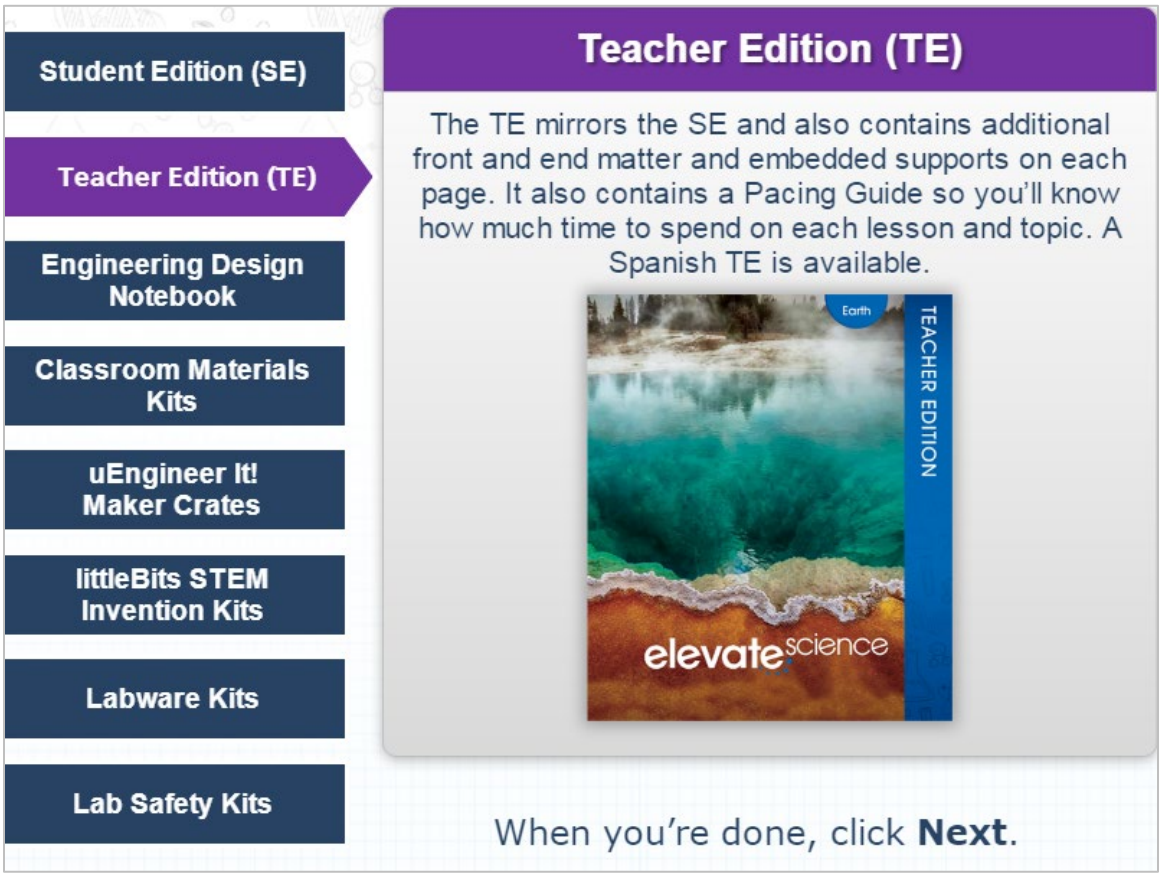
Let's look at both the print and digital components of the program to see how they will help you plan and teach your science lessons.

Student Edition (SE)



The write-in SE provides students with a personal record of learning. A Spanish SE is available.

Teacher Edition (TE)



The TE mirrors the SE and also contains additional front and end matter and embedded supports on each page. It also contains a Pacing Guide so you'll know how much time to spend on each lesson and topic. A Spanish TE is available.

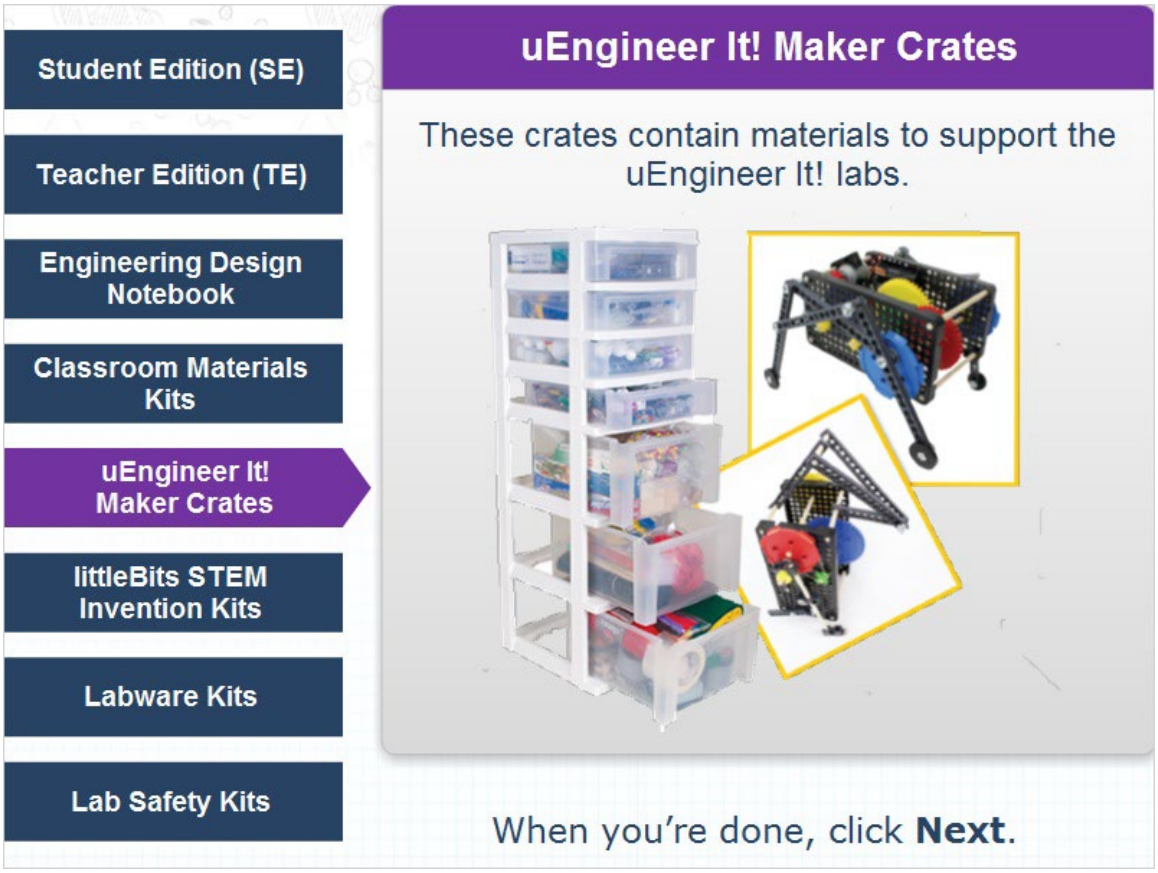
Engineering Design Notebook

This notebook contains uEngineer it! STEM activities related to the various topics that support the engineering and design process.

Classroom Materials Kits

These grade-level classroom materials kits support the hands-on investigations and labs throughout the program. Consumable Refill Kits are available to restock consumable materials.

uEngineer It! Maker Crates

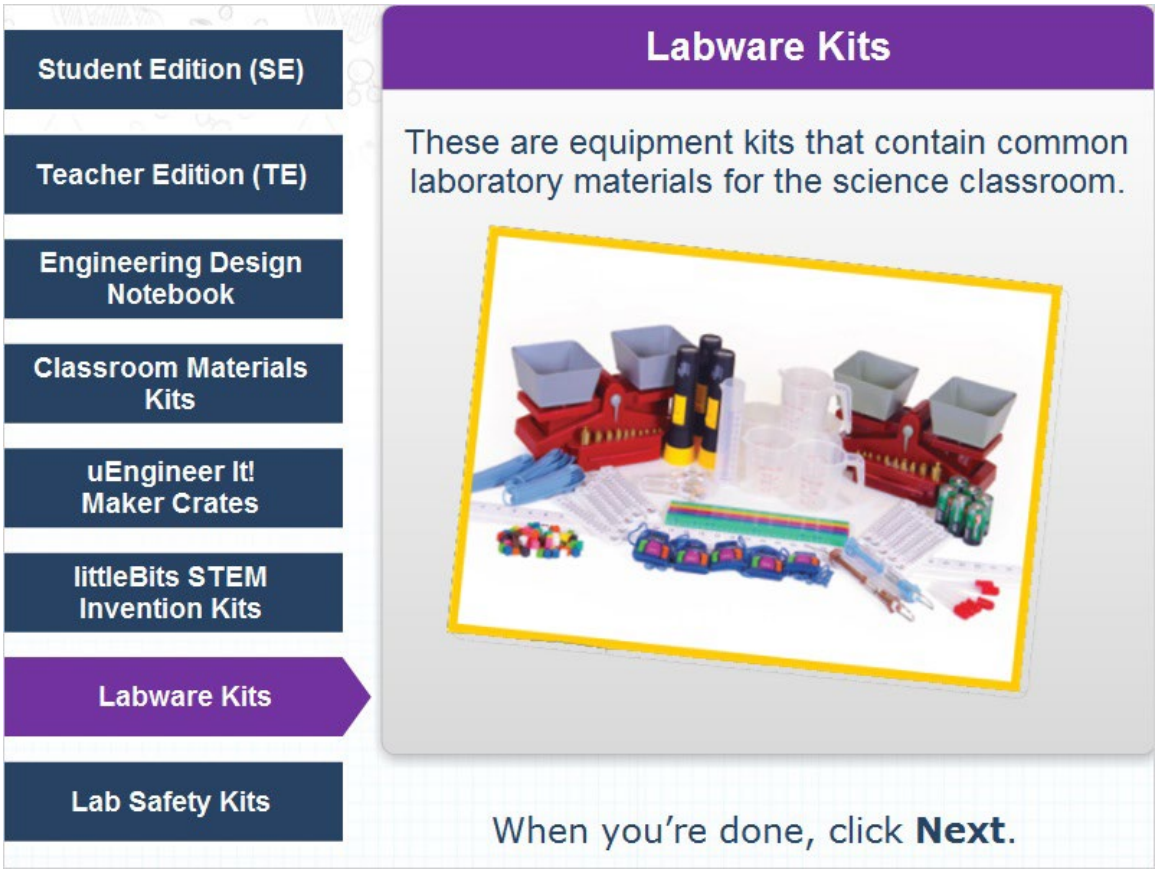


These crates contain materials to support the uEngineer It! labs.

littleBits STEM Invention Kits

These STEM invention kits provide programmable electronic modules for littleBits. There are two littleBits Kits available with all Elevate Science purchases and additional littleBits packages available for purchase.

Labware Kits

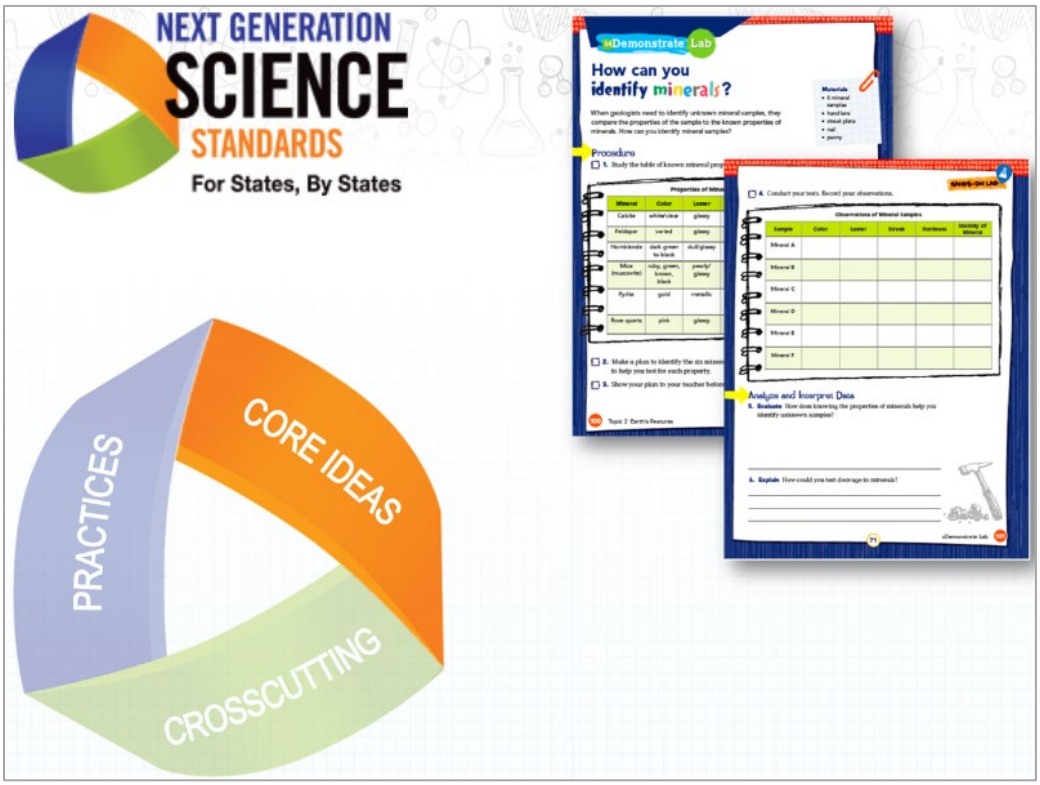


These are equipment kits that contain common laboratory materials for the science classroom.

Lab Safety Kits

These kits contain essential classroom safety equipment.

Three-Dimensional Learning



Take your students to the next level with real-world, relevant, and interesting topics to introduce the core ideas. Transform your science classroom by immersing students in active, three-dimensional learning with the new NGSS 3-D learning model, integrating disciplinary core ideas, crosscutting concepts, and science and engineering practices.

DIMENSION 1: Disciplinary Core Ideas
Students gain a deeper understanding of the ideas in each lesson through activities such as Quick Labs, Data Analysis, and Lesson Review.

DIMENSION 2: Crosscutting Concepts
Students explain phenomena by simultaneously applying crosscutting concepts, such as patterns, cause and effect, or stability and change.

DIMENSION 3: Science and Engineering Practices
Problem-based learning activities and performance tasks involve students in practices that scientists and engineers use every day.

Elevate Science also integrates a new, student-focused **CISD Instructional Model** (Connect, Investigate, Synthesize, Demonstrate). Based on the 5E Learning Cycle, this new model blends print and digital learning, emphasizing science and engineering practices to:

- **engage** students by connecting what they know from their own experiences;
- **explore** concepts through investigative techniques;
- **explain** and **elaborate** on these concepts by understanding and formulating ideas and solutions to the problem; and
- **evaluate** their findings by applying what they have discovered to new solutions.

Problem-Based Learning

Elevate thinking by promoting investigation and critical thinking with the Learning Quests introduced in each unit.

The Quest problem-based learning activity anchors each topic. Students “figure out” the quest’s solution as they navigate the topic and do Quest Check-ins in each Lesson. The Quests provide a phenomena challenge with a real-time situation.

Students explore the topic’s phenomenon throughout the lessons, and they apply their knowledge and skills to master new science standards.

What materials are needed to solve the Quest? Check-Ins ask students to reflect on the problem as they design their solutions. At the close of each topic, students synthesize information and construct explanations as they complete their Quest.

STEM Activities

Elevate Science connects science, technology, engineering, and mathematics (or STEM) in every topic, at every grade.

The STEM projects enhance their science and engineering skills as they devise new solutions for Quest problems. Students will record notes, gather and analyze data, monitor their progress, and evaluate their work in their *Engineering Design Notebook* as they complete the STEM practices and lab activities.

The content, strategies, and resources of Elevate Science equip your classroom for scientific inquiry and science and engineering practices.

Inquiry-Focused Labs

Feeling more confident about teaching your new Elevate Science program? Let's chat about how Elevate Science helps you create a learning culture that's nimble, personalized, and student-centered.

Elevate learning in your classroom with a focus on the new science standards. Explicit strategies guide the learner, while hands-on investigations focus on open-ended inquiry.

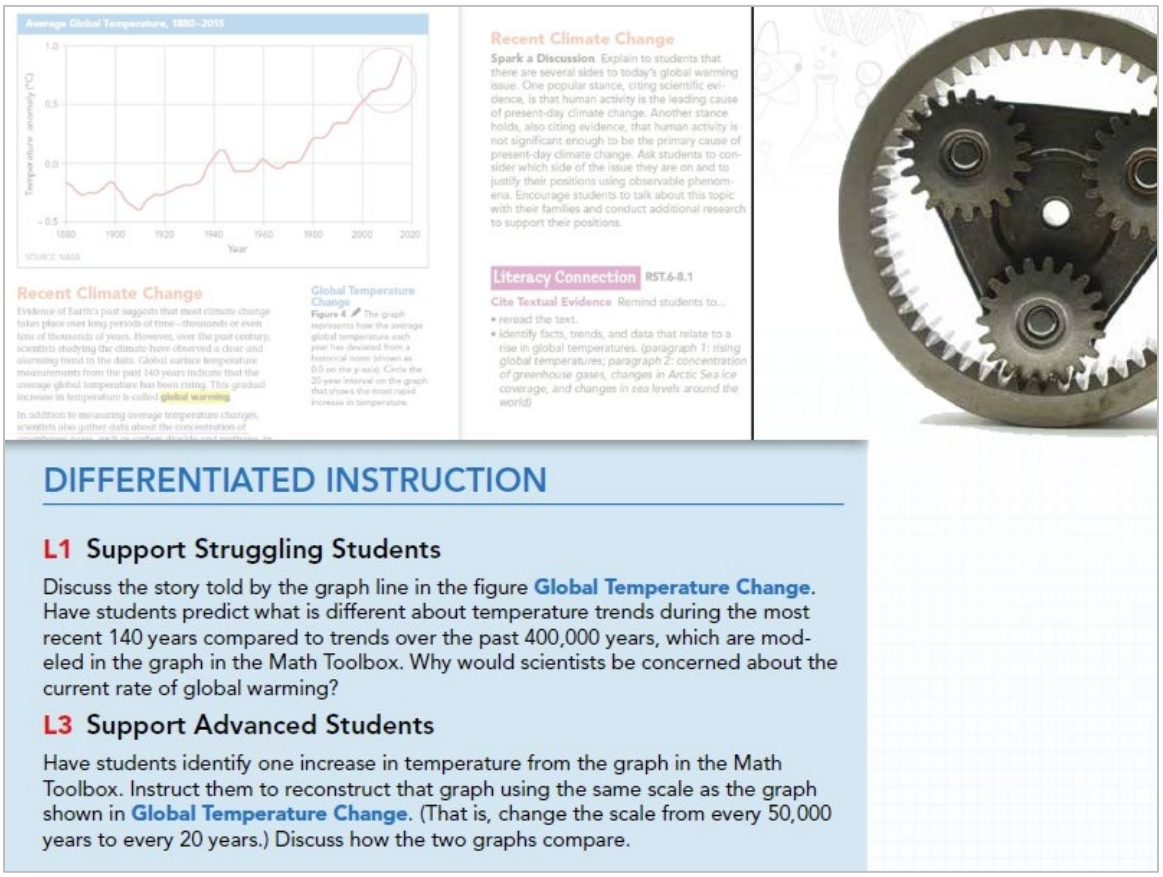
Students engage with the phenomena and connect it to
the disciplinary core ideas, then plan and develop procedures to test their ideas. They logically think through their ideas using modeling to explain and apply concepts.

Students use design skills to sketch out ideas to test their solutions in their *Engineering Design Notebook*, then demonstrate their understanding and application of key concepts by answering questions about their results.

Classroom materials kits and maker crates provide the materials to inspire inventors! Students can make programmable robots, vehicles, and machines using simple, modular electronics.

Elevate learning even further by using the Virtual Labs components! Students simulate the classroom lab experience in an enhanced digital environment. These labs make clean-up obsolete!

Learning Strategies



Elevate Science helps all levels of students think, read, write, and talk about science through various learning strategies incorporated into the Teacher Edition.

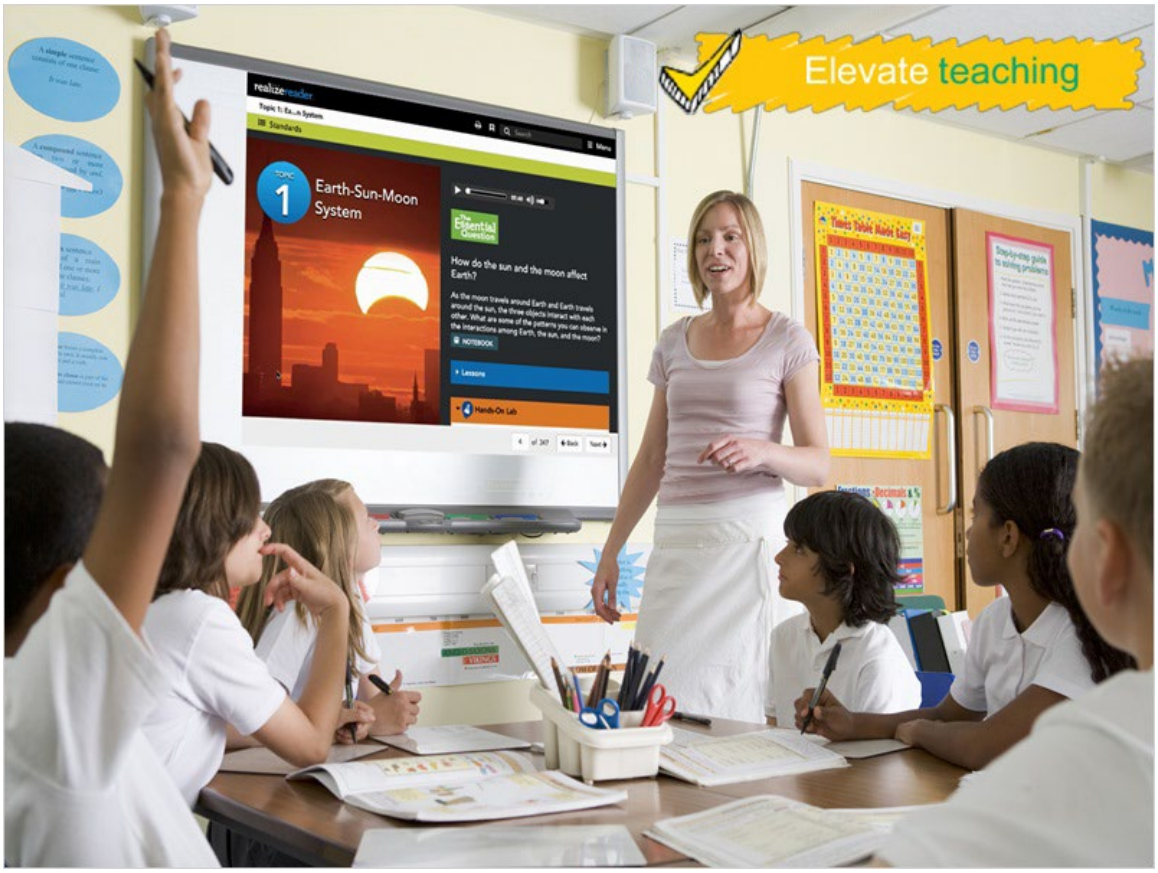
Every topic contains Literacy Connection, targeting a critical literacy skill, such as using evidence from texts to make well-defined claims.

Use the Math Toolbox to bring math relevance to your science lesson! The integrated math practices apply concepts to real situations.

Formative assessment opportunities throughout the content help you provide feedback to improve student learning.

Google Expeditions™ are virtual reality tours that take students on immersive journeys all around the world. Teachers can lead classroom-sized groups of students through collections of 360° and 3D images.

Assessment and Evaluation Tools



In a differentiated classroom, all learners have a better chance of mastering the new science standards. Elevate teaching to the next level by making strong connections between assessment and differentiated instruction.

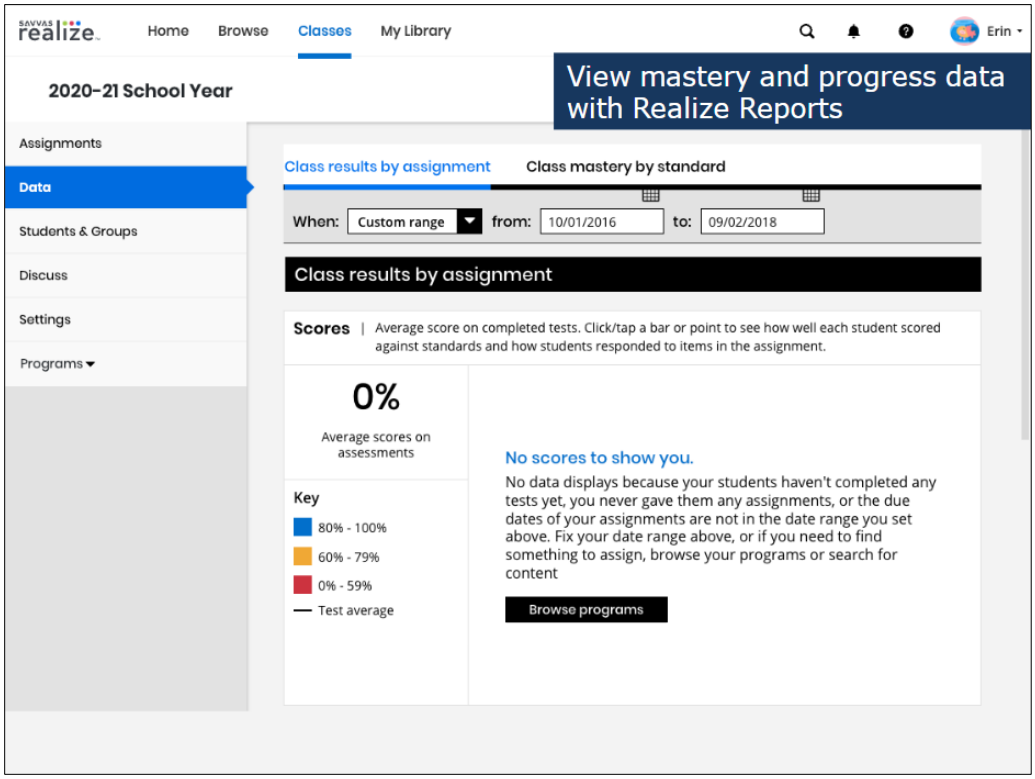
Lesson Checks provide formative assessment opportunities in every lesson, helping you monitor and support student progress.

Performance-Based Assessments are located in every chapter, with authentic assessments and STEM learning, allowing students to demonstrate mastery of the chapter concepts.

The program uses scaffolded questions to address multiple Depth of Knowledge levels, reflect three-dimensional learning, and help students achieve mastery by focusing on STEM practices.

Summative and performance assessments at the end of each topic allow students to demonstrate mastery of the new science standards, and help you refine your teaching practices. uDemonstrate labs provide another method for students to demonstrate their knowledge at the end of each topic.

Savvas Realize



Let's elevate your teaching even further by adding more online resources!

Active learners need readily accessible content anywhere and at any time. A single sign-on provides access to all content, management tools, resources, and real-time student data.

The Realize Reader eBook provides students on-the-go access via iOS®, Windows®, and Chrome™ apps for mobile devices, and allows students to highlight, annotate, and even work offline.

You can assign small portions of content or larger multi-part assignments from Realize Reader and review, comment, and grade them online. The Notes and Comment features allow you to provide individual and private feedback to each student.

Throughout the lessons, digital support is presented at point of use to enhance the learning experience. It's simple and easy to access lessons, assignments, and tools.

Make it your own by adding Google Docs™ and OpenEd resources! Modify content and assignments by adding your own resources to help you tailor your science classroom to your students' needs.

Then, check students' mastery of the content and science standards, as well as view progress and assignment data with Realize Reports.

Closing

Now you can feel confident teaching your new Elevate Science program!

In this tutorial, we examined the key program features and materials of Elevate Science for Middle Grades. Thank you for joining me for this tutorial!