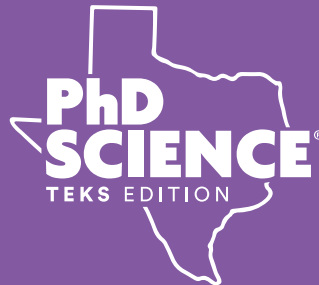


*Don't just memorize science—
experience it.*



**GREAT
MINDS**

™



Inspiring students to *wonder*
about the world



With PhD Science, students were excited by experiments; truly engaged by finding out answers. I now hear students in the hallway talking about what they were doing in class. That wasn't happening before.

—Mary Morris, Teacher, Lindale, TX



**and *empowering* them
to make sense of it.**



Deep, *lasting* understanding

Rather than teaching a little bit about a lot of topics, our K–5 *PhD Science*® *TEKS Edition* curriculum is designed to promote deep, evidence-based learning that helps students build enduring knowledge and understanding. Students drive the learning and develop a questioning spirit as well as investigative, leadership, and communication skills that serve them for a lifetime.

Every module in *PhD Science TEKS Edition* begins with an Essential Question designed to spark students' curiosity about the anchor phenomenon. The coherent design of the curriculum across lessons, modules, and grade levels helps students use the concepts they've learned to build a deep understanding of science and set a firm foundation they'll build on for years to come.

In 2020, Great Minds® was chosen to develop high-quality science instruction materials for Levels K–5 through the Texas Home Learning initiative. *PhD Science TEKS Edition* is now available as an open educational resource for all schools in the state through the 2024–2025 school year.




Real-world *science*, real-world *applications*

Student driven—not lecture driven

Phenomenon based—not textbook based

Coherent storyline—not a collection of disconnected topics

With *PhD Science TEKS Edition*, students explore science concepts through authentic—not fabricated—phenomena and events to build concrete knowledge as they solve real-world problems. Students ask questions, gather evidence, develop models, and construct explanations to demonstrate the new knowledge they've acquired.





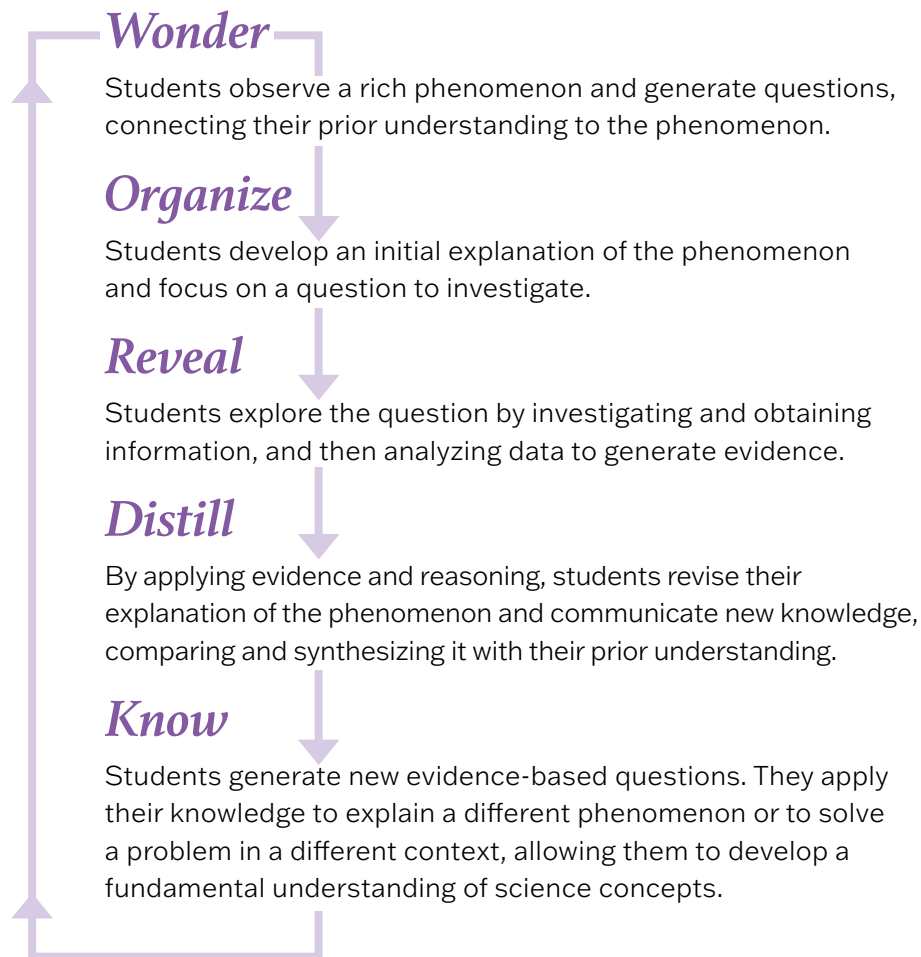
In Level 5 Module 1, students investigate Earth features by looking at the Grand Canyon—one of the world’s seven great wonders. The module’s Essential Question asks how the Grand Canyon’s features formed.

By examining the Grand Canyon, students not only study the science behind the formation of the various layers of rock over time through weathering and erosion, but they also gain an understanding of and appreciation for a real place and build knowledge they can share about a location they could visit one day.

In the activity shown here, students blow air through a straw toward shaving foam to model how moving air (wind) can affect rock.



An engaging *learning cycle*



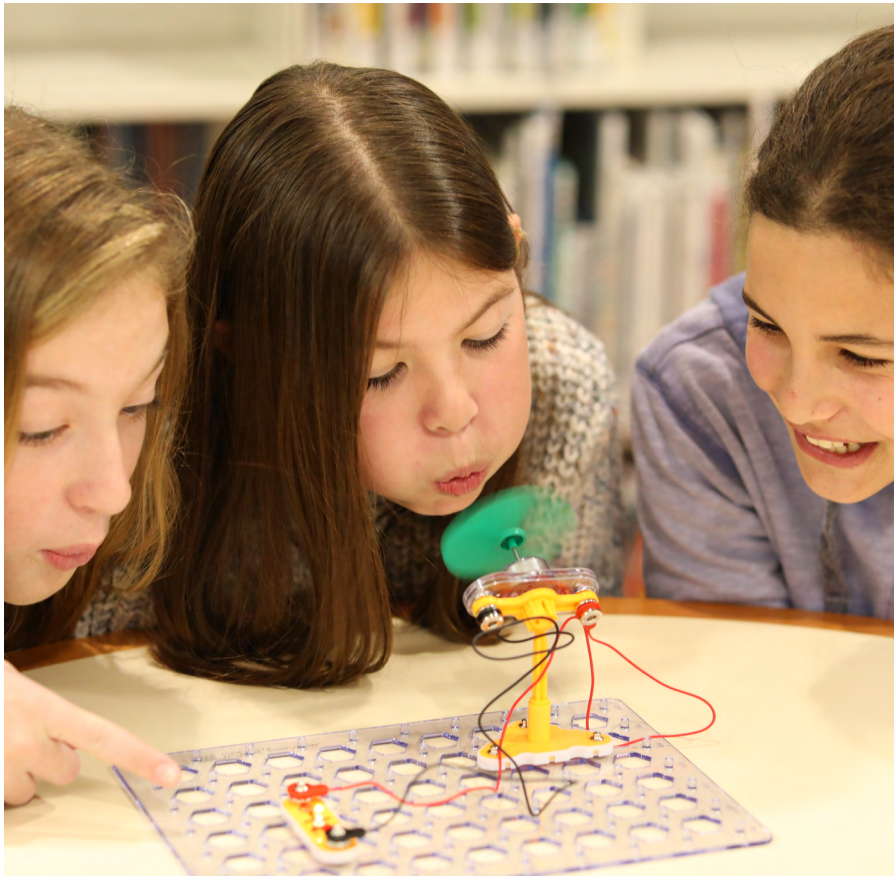
Science doesn't operate in a *vacuum*

A student who is told the meaning of a science term may be able to recall that definition for a test, but the student may not truly understand the term.

Science should be taught in context through the experience of real investigations: we want students to learn science by *doing* science.

That's why *PhD Science TEKS Edition* uses an **Activity Before Concept** to **Concept Before Terminology** approach that helps students achieve much deeper understanding than they can through rote memorization.

so it shouldn't be
taught that way.



In Level 4 Module 1, students engage in modeling to prepare for a hands-on investigation in which they blow on a fan connected to a circuit system to light a light bulb.

After students have experienced the concept through an activity, they learn the terminology involved: *energy transfer* and *energy transformation*. They build enduring scientific knowledge by experiencing the concept in action, not just memorizing a definition.



Cross-curricular connections

Art and science both begin with a sense of wonder that invites students to observe, question, and make sense of the world around them. Artists often highlight specific aspects of a phenomenon, stoking students' curiosity about it. Every *PhD Science TEKS Edition* module incorporates art, providing students with an additional accessible entry point to the topic of study.

Core texts are resources that enrich the curriculum and provide support for teachers and students. Including authentic trade texts in lessons is an important way to highlight coherence and build knowledge while allowing students to experience meaningful connections across content areas.



In Level 3 Module 2, students investigate how butterflies survive in their environment. They are first shown a picture of a woodcut called *The Rhinoceros* by Albrecht Dürer. Students learn that this woodcut was created with Dürer never actually seeing a rhinoceros before. Students then apply accurate representation when sketching butterflies in their environment after reading and observing butterflies from the trade text *A Butterfly is Patient* (Aston and Long).

Science educators deserve high-quality instructional materials that can adapt to wherever learning takes place. *PhD Science TEKS Edition* is carefully crafted to give you everything you need to teach science properly so students can build unshakable knowledge of the physical world.

Every component of *PhD Science TEKS Edition* serves a specific purpose that aligns with the coherence of the curriculum.

Print, PDFs, and Manipulatives

- Teacher Edition PDFs
- Science Logbook
- Hands-On Materials Kit
- Core Texts
- Knowledge Deck™

Digital Tools and Materials

- *PhD Science in Sync™ TEKS Edition*
- Science Journal
- Daily Videos
- PhD Projected
- Learn Anywhere Plans

Instructional materials are blended seamlessly across print and digital formats to support students in and out of the classroom.





Doing is learning. Students talked more so they retained more. Teachers really dug in and planned the student experience for the lessons. We all came out better by being challenged to share what we learned in various ways. Science was fun and made us think about our environment differently.


—Tracey Gabriel, Teacher Facilitator, Port Arthur, TX



Fostering *curiosity* for young science learners

At Great Minds we want to make the world a more knowledge-rich place. We believe students should have access to coherent, knowledge-building instructional materials as soon as they begin elementary school.

That's why we developed our K-2 curriculum to specifically meet the needs of young learners. For instance, lessons are shorter to account for student stamina. Collaborative conversations and accessible questions create dialogue and discourse. Our Knowledge Deck™ has simple yet arresting text and imagery. Full-color Science Logbooks have icons, pictures, simple sentences, and decodable words that progress as student develop their reading and comprehension. Students use sentence strips, model cutouts, and other artifacts to interact with their investigations and their anchor visuals.






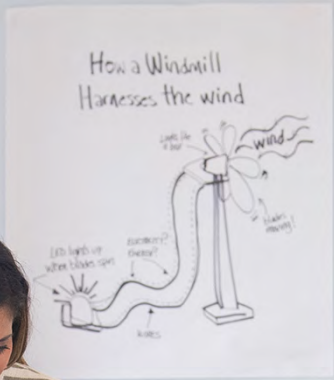
Curriculum by teachers *for teachers*

Approximately 75 percent of our 1,200 employees are or have been teachers, so we're deeply engaged in teacher empowerment.

The pedagogical shift in science instruction requires that teachers act as facilitators instead of lecturers. To make that transition, they need informative resources and competent support.

We work with teachers to help them support students in productive struggle that's essential for building enduring knowledge. Because when teachers feel prepared and supported, curricula come to life and students thrive.







PROFESSIONAL
DEVELOPMENT
&
IMPLEMENTATION
SUCCESS



Sustained *support* from a *trusted* colleague

With the proper support, high-quality instructional materials can transform teaching and learning. And who better to provide that support than the people who created the actual curriculum? Our expert team of teacher-writers crafted all our professional development, and each of our sessions is led by educators with firsthand experience teaching the curriculum.


Professional Development Sessions

Created by the expert team of teacher-writers behind *PhD Science TEKS Edition*, our in-person and virtual PD sessions include a series for teachers and leaders to ensure strong initial implementation as well as sessions designed for sustained success.

Coaching

Coaches from the *PhD Science TEKS Edition* team expertly guide educators to apply what they learn in PD sessions to their own classrooms and schools. Through modeling, observation, and recommendations for customizing the curriculum, Great Minds coaches help teachers improve implementation and help leaders develop effective ways to support, understand, and evaluate classroom practices.

On-Demand Resources



PhD Science TEKS Edition offers on-demand access to supplemental support resources such as our webinar library, implementation guide, social media groups, and family support materials so that educators have the support they need when they need it.

The world around us is *endlessly interesting.*



The world around us is full of wonder—of phenomena that seem mysterious, of elements that stretch our imaginations.

This wonder can't be conveyed through text on a page. It can't be absorbed in a lecture. It has to be experienced. It has to be explored.

Children deserve an authentic, exciting way to investigate and make sense of the world around them.

Because when science is phenomenal, a child's thirst for knowledge becomes unstoppable.

Wonder, Investigate, Know



**GREAT
MINDS**

every child
is capable of
greatness

We are a knowledge company.

Not just a curriculum provider.

**We believe every child
is capable of greatness.**

Not just a few.

**It is our mission to make knowledge
accessible to all.**

**To do so, we partner with educators who
work tirelessly to inspire greatness in
every student, every day.**

**Our curricula are unique because they
empower educators to go beyond teaching
skills. They lead their students in building
deep knowledge through curiosity,
exploration, and the true joy of learning.**

**Because if we can instill a lifelong thirst
for knowledge, children can do anything
they put their minds to.**

Great Minds.

