

How will we prepare students for academic success?

Our state has adopted new Science standards that are based on *A Framework for K-12 Science Education*, by National Research Council, because we understand that a robust science education in elementary school will pave the way for increased opportunities in middle school, high school, and college. The recently adopted Science TEKS are scheduled for state implementation beginning with the 2024-2025 school year.

The Science Texas Essential Knowledge and Skills (TEKS) enable our teachers to offer all students interactive science instruction that promotes analysis and interpretation of data, critical thinking, problem solving, and connections across science disciplines—with a high set of expectations for achievement in grades 3-5.

A quality science education can help expand opportunities for all our students.

These science standards complement our English/ Language Arts and mathematics standards, enabling classroom instruction to reflect a clearer picture of the real world, where solving problems often requires skills and knowledge from multiple disciplines. Further, these standards are designed to benefit and engage all students, whether they currently lack access to a quality science education or already excel in science subjects.

What is our vision for science education?

Texas' standards reflect the latest research and advances in modern science. In order to equip students to think critically, analyze information, and solve complex problems, the standards are arranged such that—from elementary through high school—students have multiple opportunities to build on the knowledge and skills gained during each grade, by revisiting important concepts and expanding their understanding of connections across scientific domains. Parents should understand that while some content might be similar to the past, it may look different from how they were taught.

As the current science standards are implemented in schools and districts, they will enable students to:

- Develop a deeper understanding of science beyond memorizing facts, and
- Experience similar scientific and engineering practices as those used by professionals in the field.



How will students learn science in the classroom?

Each year, students in Texas should be able to demonstrate greater capacity for connecting knowledge across, and between, the physical sciences, life sciences, earth and space sciences, and engineering design.

Engineering design during grades 3–5 may explore questions including:

- Which solution is the best to solve a problem?
- How can designs be improved?
- How do engineers improve existing technologies to increase their benefits, decrease known risks, or meet societal demands?

During grades 3-5, your child will begin to form deeper connections between concepts and skills previously learned in grades K-2, such as evaluating methods for collecting data, revising models based on evidence, and analyzing data to make sense of phenomena.

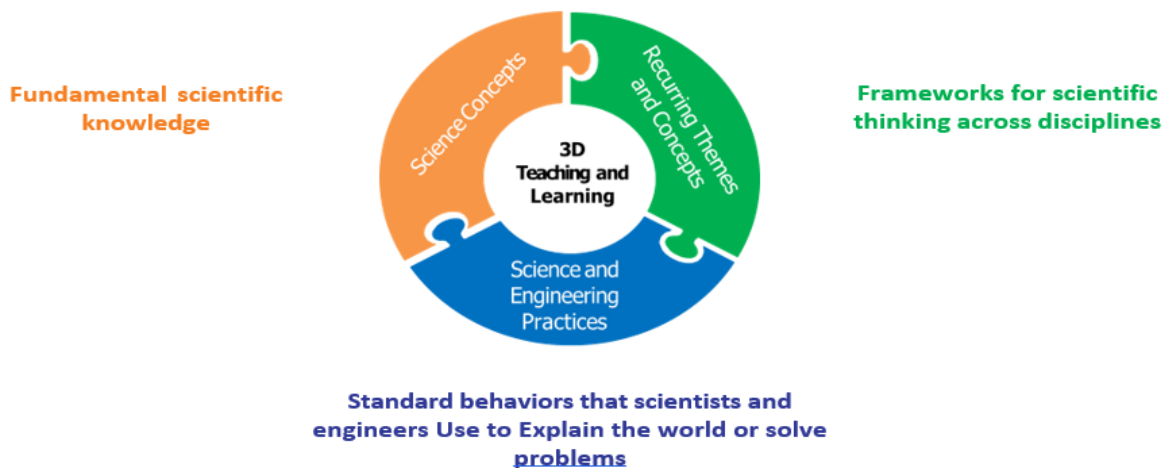
Reshaping Science Education for All Students

In an effort to bolster America's competitive edge in an increasingly global economy, Texas led the development of the standards by working with teachers, higher education, business, and practicing scientists. This collaborative process produced a set of high quality, college- and career- ready K–12 academic standards that set meaningful expectations for student performance and achievement in science. The standards are rich in both content and practice and arranged in a coherent manner across all disciplines and grades.



Three Dimensions of Science Learning

The Texas science standards emphasize three distinct, yet equally important dimensions that help students learn science. Each dimension is integrated into the standards and—combined—the three dimensions build a powerful foundation to help students build a cohesive understanding of science over time.



Classroom activities in Elementary School will look less like this:	And look more like this:
Students have infrequent exposure to science instruction or related activities.	Students engage with science concepts as a core part of instruction and are encouraged to connect lessons to their own personal experiences.
Students learn that matter is made of particles.	Students collect data through activities, such as compressing air in a syringe, in order to create cognitive models of matter.
Students draw food webs for particular environments.	Students construct scientific arguments about how matter and energy move through ecosystems in different ways.
Students review the characteristics of various rocks and minerals.	Students gather evidence from rock formations to help determine the order in which rock layers were formed.
Students have infrequent exposure to discussions or activities related to engineering design.	Students consider or apply engineering design principles throughout each grade level.
Student discussions and activities are disconnected from mathematics or English/Language Arts instruction.	Student discussions and activities are thoughtfully integrated with mathematics and English/Language Arts instruction.

If you have any questions related to your child’s science instruction please feel free to reach out to their teacher or you may contact Michelle Yates, Aledo ISD Science Coordinator at myates@aledoisd.org or (817)-441-8327 ext. 1021.

