100% STAAR Pass Rate in Aldine ISD Algebra 1 Pilot Program

6-12 Math Success Story

The district is empowering all learners to succeed with the Texas Math Solution.

Aldine Independent School District
Demographics:
  - Grade Level: Pre-K - 12
  - Enrollment: 61,633
  - Race: Hispanic/Latino - 74.57%, Black or African American - 21.56%, White - 1.57%, Multiracial - 1.11%, Asian - 0.93%, Pacific Islander - 0.15%, American Indian - 0.11%
  - Economically disadvantaged: 91.6%
  - Students with learning differences: 8.91%
  - English learners: 33.31%

Challenges:
  - STAAR redesign preparation
  - Need for rigor and alignment
  - High populations of emergent bilingual and economically disadvantaged students

Solutions:
  - Texas Math Solution

Populations Served:
  - 6-12 grade students

Results:
  - Increased STAAR scores
    - 100% of Algebra 1 pilot program students passed the winter STAAR
    - 27% increase in fall STAAR interim scores in classrooms implementing the Texas Math Solution with fidelity
    - Rigorous, high-quality instructional materials lead to alignment and student-centered classrooms
    - Mindset shift that all students can make academic achievements

The district is empowering all learners to succeed with the Texas Math Solution.
Challenges to Math Education at Aldine ISD

Aldine Independent School District is one of the largest districts in Houston, Texas, serving 61,633 students across 14 middle school and 15 high school campuses.

One challenge Aldine ISD faced at the beginning of the 2022-23 school year was to prepare their students for the redesign of the math State of Texas Assessment of Academic Readiness (STAAR), which added non-multiple-choice questions to align with the deep critical thinking and conceptual mathematics learning students should be doing in class.

“We definitely needed to get away from what used to work, the typical ‘I Do, We Do, You Do,’” shares Tiana Rodriguez, Program Director of Middle School Mathematics. “The STAAR has been redesigned, so we also needed to redesign our instruction. We can’t have teacher-centered, lecture-based classrooms anymore.”

As district leaders assessed the impacts of the STAAR redesign, they recognized the need to increase rigor and improve alignment across their large district.

“We needed to establish consistency and alignment,” attests Ms. Rodriguez. “It’s really hard to have teachers doing so many different things, especially in a district as large as Aldine.”

“As we were considering alignment,” she continues, “We wanted to make sure that our math instruction was of the highest level of rigor and that kids were getting academic opportunities regardless of their English-language status or socioeconomic background.”

So how did Aldine ISD find a way forward, to align its curriculum so students of all backgrounds were engaged in deep mathematical learning that would be reflected in the STAAR redesign?

Their answer has been the Carnegie Learning Texas Math Solution.

Texas Math Solution Implementation

Aldine ISD began using the TEA-approved Texas Math Solution in their middle and high school classrooms during the 2021-22 school year.

The Texas Math Solution is comprised of Texas Essential Knowledge and Skills (TEKS)-aligned materials in a write-in, consumable textbook designed to foster collaborative discussions, group work, and exploratory learning.

Although implementing a new curriculum, especially one that emphasizes collaborative and discovery learning, can be challenging, Jennifer Everson, Algebra 1 teacher at Aldine Ninth Grade School, attests to the rewards of going all-in.

“At first, I was a little overwhelmed because I had never tried engaging with students at the level that the Texas Math Solution asks you to,” she shares. “I had never tried to take on the role of the facilitator, so it was intimidating. But after a semester of using the Texas Math Solution, it got easier, and I know I’m a better teacher for it.”

In addition to the learning-together, collaborative classroom instruction, students at Aldine are given time during intervention periods to work in MATHia, the AI-driven, one-on-one math tutoring software.

Math instructional specialists at each campus also support teachers with weekly meetings to practice upcoming lessons and explore the Teacher Implementation Guide (TIG), a resource that contains lesson notes, language supports for ESL students, differentiation suggestions, common student misconceptions for each topic, questions to support student discourse, and more.

Because students are invited to notice, wonder, and make comparisons, they’re becoming more confident. So instead of the teacher producing all of the knowledge and telling students what they need to know, the students get to produce their own knowledge.

Dr. Divina Browne
Program Director
High School Mathematics
Quest for Rigor and Alignment Leads to Student-Centered Classrooms

The Texas Math Solution’s high-quality instructional resources have encouraged students to engage in the rigorous thinking and learning practices reflected in the STAAR redesign.

“The STAAR redesign increases the level of rigor,” reiterates Ms. Rodriguez. “There’s no hack or trick to it, so we need our kids to be able to think for themselves, problem-solve and persevere. To do that on the test, they must do it in class. The Texas Math Solution gives them that opportunity.”

Samuel Ramirez, Math Instructional Specialist at Aldine Ninth Grade School, agrees. “We needed rigor. Having the kids think, create, and look at math through a real-world lens is vital. The Texas Math Solution puts all of those things together and allows students to take ownership of their learning.”

And the naturally rigorous yet real-world-focused and collaborative nature of the Texas Math Solution has changed what Aldine classrooms look like.

“I see more student-to-student interactions and discourse,” shares Dr. Divina Browne, Program Director of High School Mathematics. “Because students are invited to notice, wonder, and make comparisons, they’re becoming more confident. So instead of the teacher producing all of the knowledge and telling students what they need to know, the students get to produce their own knowledge.”

Mr. Ramirez sees this increase in student-centered instruction in the classrooms of Aldine Ninth. “Our classrooms have changed from ‘I Do, We Do, You Do.’ Now we have open-ended bell-to-bell discussions about math,” he states.

STAAR Scores Skyrocket Districtwide

The increase in rigor, alignment, and student-centered instruction has led to higher STAAR results across Aldine’s campuses.

At the beginning of the 2022-23 school year, their second year of implementation, Aldine Ninth launched a pilot program to address the needs of 22 incoming Algebra 1 students who were chosen based on low 8th grade STAAR scores.

Mr. Ramirez explains the pilot program: “They were in Algebra 1 every day for 90 minutes during the first semester.”

“This gave them two opportunities to take the Algebra 1 STAAR: once in December and then, if they failed, again in the Spring,” continues Ms. Everson.

This in-depth and dedicated time to learning, combined with the high-quality instructional materials of the Texas Math Solution, produced exactly the results Aldine Ninth was hoping for.

“The kids blew our expectations out of the water!” enthuses Ms. Everson. “They ALL passed the Algebra 1 STAAR in December. One hundred percent of the students in the first-semester pilot group passed the Algebra 1 STAAR on their first try.”

Aldine’s success with the Texas Math Solution hasn’t just been limited to the Algebra 1 pilot program at Aldine Ninth.

To ensure they were making the best curriculum decision for their students, Aldine partnered with TNTP, a national nonprofit organization with a mission of ensuring equal access to education for all students. TNTP observed Aldine’s math classrooms and collected and interpreted data about Fall STAAR interim scores.

TNTP found that in classrooms where teachers were implementing the Texas Math Solution with fidelity, students showed high levels of ownership over their learning. Classrooms with high levels of student ownership scored, on average, 27% higher on the fall STAAR interim assessment than counterpart classrooms with lower levels of student ownership.
Students From All Backgrounds Are High Achievers

The district is also excited about the change in mindset they’re seeing wash over their teachers and students.

Aldine is a district where 91.6% of students face economic disadvantages and 33.31% of students utilize bilingual education or ESL services—descriptors that many might think indicate lower levels of ability or achievement.

“We’re looking to say, ‘Forget all that,’” Ms. Rodriguez states. “Kids are kids, and they can achieve at high levels if we believe they can.”

Dr. Browne continues, “We want our students to see that math is accessible to everyone. Any student, no matter their skill level, should be able to access the learning experiences. The Texas Math Solution lets us do that.”

With built-in ESL supports and differentiation techniques for every lesson, Aldine students are thriving, and teachers have the resources to make that possible. “Teachers can differentiate for every student,” states Ms. Rodriguez. “No matter what kind of label they may or may not have.”

Mr. Ramirez agrees. “This has been a huge opportunity for our students to experience academic success that many of them aren’t used to experiencing.”

“Aldine Looks Forward to the Future

The students and teachers of Aldine ISD have already accomplished so much in their partnership with Carnegie Learning and the Texas Math Solution, so what’s next?

Of course, they’re excited to see more STAAR score gains. But, more importantly, they’re looking forward to seeing confident students who are breaking barriers in the real world.

As Mr. Ramirez says, “I’m excited for our students to say, ‘Wow, I have an opportunity to do something amazing. I have an opportunity not just to pass the STAAR test, but I’m going to go to college. I’m going to be able to do things that I didn’t even know I was capable of.’ We’re giving them that confidence with Carnegie Learning.”

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Explore the Texas Math Solution
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