Muleshoe ISD Sees 333% STAAR Improvement with Texas Math Solution

The gains are real. And so are the collaboration and confidence.

6-12 Math Success Story

Muleshoe School District Demographics:
- Grade Level: Pre-K-12
- Enrollment: 1336
- Race: Hispanic/Latino - 86.4%, White - 12.3%, Black - 0.4%, Asian or Pacific Islander - 0.6%, Multiracial - 0.3%, American Indian - 0.1%
- Economically disadvantaged: 85.8%
- Students with disabilities: 13.8%
- English learners: 28.2%

Challenges:
- Stagnating STAAR state assessment scores
- Lacking vertical alignment across grade levels
- Low math confidence and engagement

Solutions:
- Texas Math Solution

Populations Served:
- 6-12

Results:
- Improved STAAR state assessment scores from middle to high school:
  - 30 percentage point increase in “Masters Grade Level” scores
  - 38 percentage point increase in “Meets Grade Level or Above” scores
  - 28 percentage point increase in “Approaches Grade Level or Above” scores

- Aligned, collaborative curriculum
- A positive shift in students’ attitudes about math
- Math education that centers on true understanding, not tips, tricks, or shortcuts

At the beginning of the 2021-22 school year, Muleshoe Independent School District in Muleshoe, Texas in Bailey County, knew they had some obstacles to overcome in their math program—especially with stagnating State of Texas Assessments of Academic Readiness (STAAR) scores and looming changes to that assessment.

“The first signal we needed to make a change was our STAAR scores,” explains Balee Black, Assistant Principal at Watson Junior High School and previously a 6th-grade math teacher of six years. “Our scores were okay, but we weren't really improving. The curriculum we were using was not aligned to the types of questions that students were seeing on the test.”

Other roadblocks included district-wide issues with vertical alignment and low confidence and engagement from Muleshoe ISD’s varied population of students. But a strong belief in the capabilities of ALL learners was never a barrier for Muleshoe ISD teachers and administrators.

“We knew our students had so much potential, and we just had to provide them the correct instruction and the learning opportunities to get them where they needed to be,” says Laurie Taylor, a 15-year teaching veteran and 9th-grade Algebra instructor at Muleshoe High School.
Partnership with the Texas Education Agency

The Texas Education Agency (TEA) realized that post-pandemic struggles were all too real for many districts across Texas, so to support continuous learning efforts, they partnered with Carnegie Learning to provide educators and students access to the Texas Math Solution.

The Texas Math Solution is comprised of Texas Essential Knowledge and Skills (TEKS)-aligned materials in a write-in consumable text that encourages students to create their own mathematical knowledge and MATHia, an adaptive one-on-one math tutoring software.

In addition to the alignment with STAAR and TEKS, Vice Principal Black says, “There were other facets that went into our decision to implement the Carnegie Learning Texas Math Solution. The support has been awesome. We knew we would be able to utilize MATHia as well. Those combined areas gave us a full curriculum to use.”

One year in, Muleshoe teachers, students, and administrators are convinced. Adopting the Texas Math Solution has not only resulted in STAAR score improvements but also gains in student confidence and engagement through a robust combination of collaboration, supplemental support, and professional learning opportunities.

STAAR Success

With any new curriculum, schools might anticipate a tricky start and a dip in high-stakes assessment scores as students and teachers adjust to new methods. But in their first year with the Texas Math Solution, Muleshoe ISD saw exciting results on the STAAR test.

“When we got our STAAR scores back, they were much better than we had anticipated,” says Larry Cribbs, a Muleshoe High School math teacher of 6 years. “We were expecting our scores to drop, and they didn’t. Usually, it’s just the honors kids who get ‘masters,’ but we had kids all across the school achieve that.”

Taylor agrees, saying “We saw tremendous growth in STAAR scores. I was very excited when I got the results. We had students go from ‘did not meet’ to ‘masters’ within one year. In ninth grade, we had 86% ‘approaches or above’, 64% ‘meets or above’, and 39% ‘masters’. In 8th grade, the same group had 58% ‘approaches or above’, 26% ‘meets or above’, and 9% ‘masters’, so you can see the improvements. And I’m fairly sure that this is the first year as a district that every honors student mastered the STAAR test. You can see the gains are real. We are so proud, and we thank Carnegie Learning.”

With a 333% increase in students with “masters” on the math portion of the STAAR in just one year of using the Texas Math Solution, Muleshoe ISD administrators and teachers are confident that MATHia will continue to help their students excel on next year’s redesigned STAAR, which will reflect new item types.

STAAR Results of 9th Grade Class

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<th>8th Grade (2020-2021 SY)</th>
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<td>Masters</td>
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Mathematical Alignment Across Grades

Teachers and administrators found the curricular structure they were hoping for with the Texas Math Solution, which provided the tools they needed for district-wide vertical alignment. Math is a subject that builds on prior knowledge, and teachers who have coordinated their instructional practices and pedagogy across grade levels are instrumental in supporting student success.

“Before Carnegie Learning, our vertical integration was rough,” says Vice Principal Black. “We tried, but it was a challenge because we were all using different materials. And while we knew what our end goals were, we didn’t always know how to get there. But this year, implementing Carnegie Learning across the board helped foster curricular coherence and collaboration between instructors.”

Increased Student Confidence and Engagement Through Collaboration

Another success Muleshoe ISD has seen is that students have become truly fluent in the language of math. They are now discussing mathematics with confidence and deeper conceptual understanding. Teachers have noticed that the textbook’s collaborative activities, discussion opportunities, and “Talk the Talk” sections have facilitated robust mathematical discourse, which has boosted performance from even the most reticent or math-skeptical students.

“Carnegie Learning has ‘What do you notice?’ questions, and these have really encouraged students to develop their own learning,” says Cribbs. “I emphasized that if they noticed something about a problem, it wasn’t wrong. The students who didn’t usually answer questions were all of a sudden answering. The students who always answered questions were looking not just for what they noticed but what the problem was asking them to notice. It changed everyone’s mindset.”

Not only does Carnegie Learning assist in student growth, but it also assists the growth of the educator.

The Texas Math Solution provides aligned curriculum and instructional practices so students begin to internalize procedures, vocabulary, and deep mathematical understandings early on.

“Carnegie Learning does an excellent job with keeping vocabulary consistent, so as students learn terms, they’re using them continuously and across grade levels,” says Taylor.

Cribbs agrees about the vocabulary support provided in the Texas Math Solution, stating, “Having common vocabulary really helped our students on the STAAR. When they saw any of those words, they knew exactly what the problem was asking them to do.”

Cribbs shares a story of how this new approach changed the trajectory of one student’s learning journey.

“I had a senior who was struggling through Algebra II,” shares Cribbs. “He had struggled his whole high school career. He came in one day and needed help on an assignment, and another student offered to help him. As I listened in, I heard the student who was helping him say, ‘Read this question,’ and after doing so, the struggling student asked, ‘What’s the first thing I notice about this question?’ He was getting it! From that day on, that’s how he approached math. His test scores went up. His attitude changed. He started helping other students when they needed it. He wasn’t afraid to ask for help, which was a big problem he had. It really changed his senior year.”

Vice Principal Black also enthusiastically talks about how students have become active and interactive learners and discussants. “Walking through classrooms, there’s definitely been a lot more discussion,” she reports. “And that was not the case before. We still have room to grow, because for many years we were a sit-and-get, lecture-based math school, but Carnegie Learning has really shifted teachers’ thought processes to get students engaged and involved in the learning.”
Deep Conceptual Understanding Sets Students Up for Success

On the heels of collaborative discussions and growing confidence, Muleshoe students and educators are also gaining a stronger grasp of conceptual foundations. As students begin to understand the “why” behind the math—and not just the “how”—teachers find that they can move beyond teaching tips and tricks and instead foster true mathematical thinking.

“He was incredibly smart, but of course, there was a language barrier. Carnegie Learning does a really good job providing support for teachers in that situation and that particular student ended up meeting expectations on the STAAR test. It was really exciting.”

Muleshoe students with learning differences have also discovered that they can not just survive, but thrive, in the math classroom.

“With all the collaboration and questioning, they’re using those critical thinking skills and solidifying foundational knowledge,” explains Taylor. “You don’t have to resort to tips and tricks because students are developing actual knowledge about how math works.”

Internalizing these conceptual foundations is an advantage to students beyond their current class and grade level. As these foundations strengthen, students can apply their knowledge to subsequent courses for continued success.

Boosted Support for English Learners and Students With Learning Differences

While all educators want to implement a curriculum that supports English learners and students with learning differences, math can often intimidate those who struggle. A core principle of the Texas Math Solution is that ALL students can be “math people,” and to everyone’s excitement and pleasure, Muleshoe ISD saw this principle come to life.

Teachers say their English learners blossomed and even achieved mastery on the STAAR using the Texas Math Solution.

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—Laurie Taylor, Algebra Instructor
Muleshoe High School

Teacher Support That Works as Hard as Teachers

Another pleasant surprise for Muleshoe educators was the level of professional learning and support they received while implementing the Texas Math Solution.

“This has continued to be a great year. We find that the curriculum is well thought out. We receive a lot of professional development and support right where it’s needed most, in the day-to-day lesson materials found in the Teacher Implementation Guide (TIG).”

That educator support is also present right where it’s needed most, in the day-to-day lesson materials found in the Teacher Implementation Guide (TIG).
“When you have the ability to go through such a thorough implementation guide for every lesson with pointers on what to look for, common misconceptions, and how to present the lesson,” says Taylor, “you can really watch the students take charge and grow with it.”

And students aren’t the only ones growing.

“Not only does Carnegie Learning assist in student growth, but it also assists the growth of the educator,” continues Taylor. “We had a first-year teacher using the Texas Math Solution and it gave her everything she needed to succeed. This program is going to help us grow our district’s educational capacities as more new teachers join us.”

Adopting the Texas Math Solution has not only resulted in STAAR score improvements but also gains in student confidence and engagement through a robust combination of collaboration, supplemental support, and professional learning opportunities.

“A Turning Point in Education”

With a year of Texas Math Solution experience under their belts and measurable success to show for it, how do the results compare to what they expected at the beginning of their implementation?

“Our first impression was, ‘This is good. But it’s going to be hard,’” Vice Principal Black reflects. “But I knew that it was going to get us where we needed to be because we needed more rigor.”

Cribbs agrees that it hasn’t been easy but worth it.

“Carnegie Learning is the kind of program where, when you first get into it, you are going to think, ‘What have I gotten myself and my district into?’” Cribbs laughs. “But with some patience and a little dedication, I think it signals a turning point in education. It’s the type of program that could push students from being okay at math to really being successful.”

Muleshoe teachers and administrators are energized about the future of math education in their district.

“I think next year, we’re going to see even more growth now that we have some of the philosophy down and we’re going into it a little more prepared,” explains Black. “I’m really excited to see what happens over the next couple of years.”

And classroom teacher Laurie Taylor says it best: “Those ‘light bulb moments’ are so exciting. As an educator, it’s why we do what we do. So many of them walk into your classroom despising math class, and then by the end of the year, you’re recommending that student for honors. We largely have Carnegie Learning to thank for that.”