



ZEPHYR ISD

Math Instructional Framework



MATH VISION

At Zephyr, every student becomes a confident, independent problem solver who connects learning across grades and applies math to real-world problems. Teachers facilitate rigorous, conceptually rich instruction, district leaders provide strong support, and families reinforce learning at home, creating a coherent, student-centered math program that fosters lifelong mathematical thinking.

ZISD MATH INSTRUCTIONAL BELIEFS

Balance of Conceptual and Procedural

We believe math learning must balance conceptual understanding and procedural skill. Students first build the “why,” then confidently apply the “how” to solve real-world problems. Teachers prioritize deep understanding, support productive struggle, and provide rigorous grade-level instruction that meets each learner’s needs.

Coherence of Key Concepts

We believe learning is most powerful when math concepts connect across lessons and grade levels. Teachers ensure coherence through aligned vocabulary, modeling, and instructional practices so students recognize patterns, build on prior knowledge, and develop a strong, lasting foundation for problem-solving.

Depth of Key Concepts

We believe students grow as mathematicians when they deeply understand key concepts. By focusing on depth over coverage, teachers help students persist through challenging tasks, apply learning in real-world contexts, and confidently build on prior knowledge through aligned instruction and continuous professional learning.

Productive Struggle

We believe deep understanding grows when students grapple with challenging tasks and refine their thinking over time. Teachers cultivate a classroom culture rooted in growth mindset, where persistence is celebrated, mistakes are viewed as learning opportunities, and all students develop confidence and independence as problem-solvers.

Core Belief for Math Instruction

We believe every student can become a confident and capable mathematician when instruction balances conceptual understanding and procedural skill, focuses deeply on essential concepts, connects learning across grade levels, and embraces productive struggle as a path to growth. Through aligned practices, rigorous grade-level instruction, and a supportive classroom culture grounded in the belief that all students can learn and succeed, we empower learners to reason, persist, and apply their mathematical thinking with purpose in real-world contexts.

Stakeholder Actions

Students	• Work through appropriately challenging tasks using prior knowledge and reasoning. • Embrace mistakes as part of learning and revise thinking when needed. • Participate actively in discussion, collaboration, and reflection. • Build confidence and independence through persistence and problem-solving. • Celebrate progress, growth, and understanding—not just correct answers. • Notice how today’s learning connects to what you’ve done before and what comes next. • Try different strategies when your first idea doesn’t work.
Teachers	• Use manipulatives, drawings, and models to move from concrete to abstract thinking. • Ask open-ended questions that promote deep thinking and discourse. • Follow pacing and TEKS progressions to maintain coherence across grade levels. • Use consistent vocabulary, representations, and routines aligned to district expectations. • Collaborate in PLCs to plan lessons, analyze student work, and ensure coherence. • Create a safe environment where students take risks and learn from mistakes. • Allow productive struggle by giving think time and posing guiding questions instead of quick answers. • Follow pacing and TEKS progressions to maintain coherence across grade levels. • Use consistent vocabulary, representations, and routines aligned to district expectations.
Leaders	• Visit classrooms regularly to observe reasoning, discourse, and conceptual learning. • Celebrate strong implementation and highlight effective instructional practices. • Encourage depth over coverage and support teachers in planning for conceptual goals. • Facilitate PLCs that focus on student thinking, not just pacing or completion • Provide time for teachers to unpack TEKS, internalize lessons, and collaborate across grades • Provide training and models for productive struggle and student-centered instruction. • Reinforce a culture where perseverance, reflection, and growth are valued. • Offer grace, encouragement, and support as teachers strengthen implementation practices.
Families	• Ask your child to explain <i>how</i> they solved a problem and <i>why</i> their method works. • Encourage curiosity and be open to new strategies that may look different from what you learned • Support them in using what they already know to approach new problems. • Recognize that math builds over time—each concept connects like chapters in a story. • Encourage persistence and reassure them that mistakes are part of learning. • Celebrate effort, growth, and resilience more than speed or quick answers. • Ask your child to share what they learned in math and how it connects to real life or other subjects. • Encourage your child to slow down, think deeply, and try again when problems are challenging