Executive Summary of the Iowa Comprehensive State Mathematics Plan 2025-2033

The Iowa Comprehensive State Mathematics Plan (Iowa CSMP) sets a bold vision for mathematics education, ensuring that every student, from early childhood through high school, becomes a confident and capable problem-solver. Aligned with House File 784 (HF 784), the plan strengthens instruction, intervention and educator preparation to raise achievement and close opportunity gaps across the state of Iowa. Grounded in coherence and continuous improvement, this comprehensive multi-year plan articulates a unified vision focused on early numeracy, conceptual understanding, procedural fluency and high expectations for all learners. The plan employs a systems-level approach to ensure instruction is consistent, intentional and equitable, providing students with timely and targeted support.

Four overarching goals guide the Iowa CSMP:

1. All students demonstrate growth and proficiency across all areas of mathematics — including number sense, algebraic thinking, geometry, measurement, data analysis and problem-solving — from early learning through graduation and are prepared for success in STEM fields, technical careers and higher education.
2. Every school is staffed with effective, qualified and highly-trained educators who provide evidence-based instruction across PK-12, ensuring students build deep conceptual understanding and procedural fluency.
3. Every school implements a Multi-Tiered System of Supports (MTSS), grounded in high-quality universal instruction and informed by valid and reliable screening and progress monitoring tools, to provide timely and targeted interventions that improve mathematics outcomes.
4. Families and communities are essential partners in the learning of mathematics. Every learning community fosters mathematical knowledge and a shared responsibility among stakeholders to enhance outcomes for all students.

Through these commitments, the Iowa CSMP advances a vision where every student is mathematically proficient, confident in problem-solving and prepared to thrive in an increasingly data-driven world.

Iowa's Efforts to Improve Mathematics

In recent years, Iowa has made significant strides in advancing mathematics education, culminating in a key legislative act. On June 2, 2025, Governor Reynolds signed the Iowa Math Counts Act (HF 784) into law. HF 784 outlines a set of high expectations for all, supports for students struggling with mathematics and support for teachers and families. Additionally, the Iowa Department of Education (Department) has taken several critical steps to strengthen mathematics instruction and alignment across the state.

- The 2024 revision of the Iowa Academic Standards for Mathematics provides a clear, coherent and focused roadmap for instruction from kindergarten through high school.
- The Department provides model high school course pathways that reflect multiple ways to bundle and sequence standards.
- During the 2024-2025 school year, the Iowa Department of Administrative Services (DAS) published a request for proposals on behalf of the Department for K–12 mathematics instructional materials, resulting in a purchasing list for schools. The Department also supported the purchase and district-wide implementation of evidence-based curricula and high-quality instructional materials (HQIM) in school districts with Extended Comprehensive Support and Improvement (E-CSI) schools, which have been identified as CSI for three or more years.
- The Department provides a list of approved professional learning opportunities through area education agencies to support mathematics instruction across grade levels and instructional tiers.

Evidence-Based Mathematics Instruction

Iowa mathematics instruction is built on four interdependent components that work together as a coherent framework: Content Standards, Standards for Mathematical Practice, the Three Shifts in Mathematics Instruction, and the Effective Teaching Practices. The Content Standards define what students should know and be able to do at each grade level, organized by domains and clusters. The Standards for Mathematical Practice describe how students should engage with mathematics, encompassing eight practices that bundle into three categories: problem solving, communicating reasoning and mathematical data analysis and modeling. The Three Shifts — Focus, Coherence and Rigor — provide the instructional framework for implementing the standards. The Effective Teaching Practices translate research into classroom action: establishing clear mathematics goals, implementing tasks that promote reasoning and problem solving, using and connecting mathematical representations, facilitating meaningful discourse, posing purposeful questions, building procedural fluency from conceptual understanding, supporting productive struggle and eliciting and using evidence of student thinking. HQIMs are tools that tie all of these components together and ensure evidence-based mathematics instruction in classrooms when skillfully implemented and supported.

Iowa Comprehensive State Mathematics Plan Recommendations

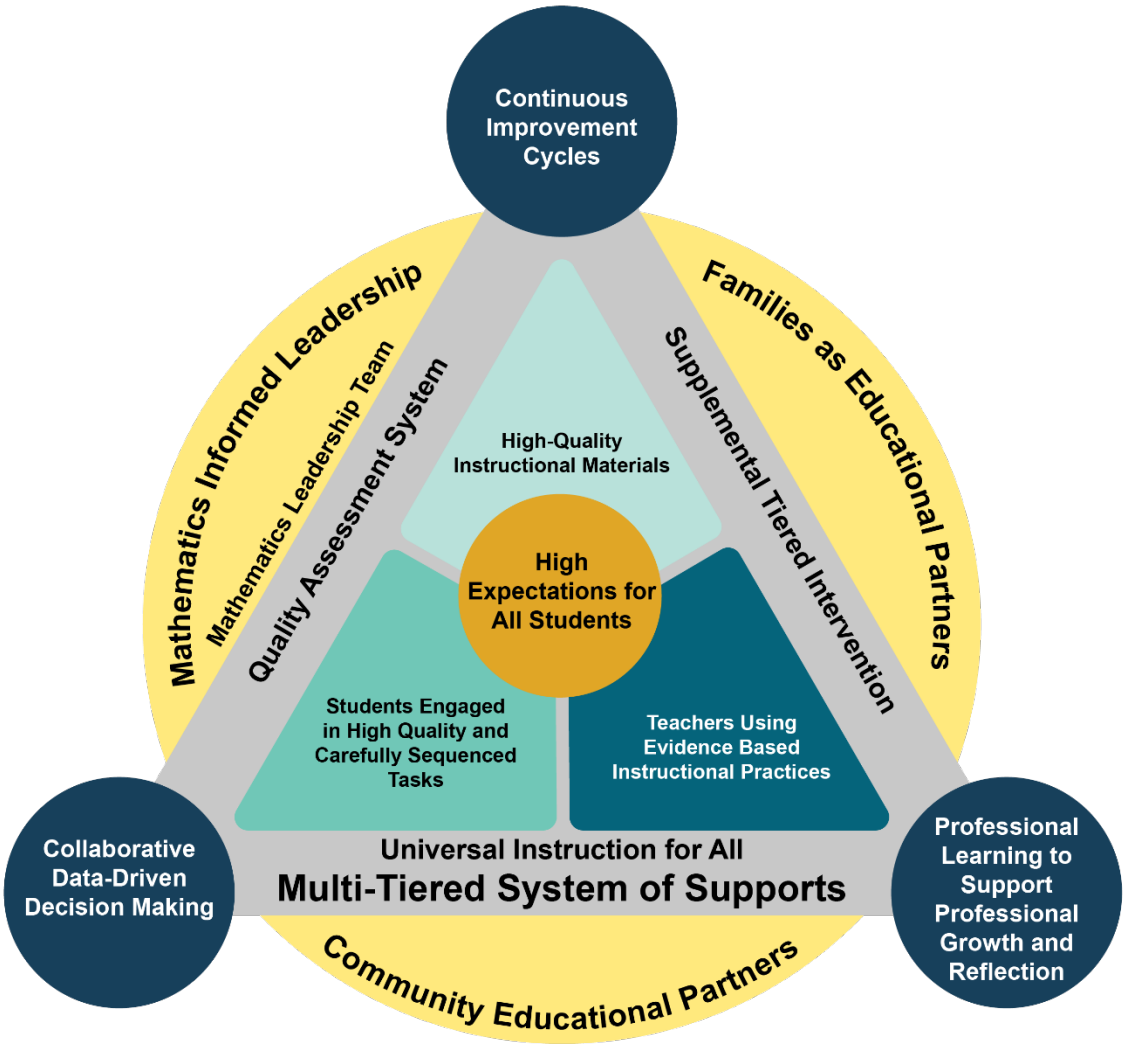

Figure 1 Iowa Comprehensive Mathematics System Framework

Iowa's approach to mathematics improvement is built on the Iowa Mathematics Systems Framework, focusing on mathematics-informed leadership (Goal #2), MTSS (Goal #3), high-quality instruction and materials (Goal #1) and family and community engagement (Goal #4). Professional learning and teacher preparation (Goal #2) are woven throughout the focus areas, ensuring educators have the knowledge, skill and resources to support every student's mathematical growth. This framework guides both state-level support and district-level implementation over the timeline of this plan. The following are recommendations for districts to implement the Iowa CSMP.

Informed Leadership

1. Strengthen the mathematics knowledge of superintendents and school administrators through professional learning experiences.
2. Establish district and/or school-level Mathematics Leadership Team (MLT).
3. Complete a Comprehensive Mathematics Needs Assessment of the current system (aligned with district SAMI results), including instruction in mathematics courses and interventions, including instructional materials and MTSS plans.
4. Develop a five- to eight-year Local Mathematics Plan.

High Quality Instruction and Materials

1. Strengthen universal instruction by integrating high-leverage, evidence-based practices across all levels of instruction from PK-12.
2. Select and adopt HQIMs for mathematics aligned with: the three shifts in mathematics instruction, Iowa's Academic Standards for Mathematics, the Effective Mathematics Teaching Practices and Mathematical Language Routines and High-Level Practices to support English learners and students with disabilities.
3. Implement HQIMs with integrity.
4. Engage in regular data-based decision-making conversations to analyze the impact of the universal materials and instruction.
5. Develop a pathway that allows students early access to Algebra 1 content.
6. Develop high school mathematics pathways that ensure all students have the opportunity to learn all required standards (Algebra 1 standards bundle, Geometry standards bundle and Algebra II standards bundle).
7. Ensure that learning communities are in place to provide educators with collaborative structures for engaging in continuous improvement conversations around new materials, curriculum, lesson plans and student work.
8. Provide curriculum-based coaching for educators.

Multi-Tiered System of Supports

1. Administer a universal screener three times a year. Grades K-6 must select from the approved list.
2. Identify and implement diagnostic assessments to support the more supplemental, targeted and intensive tiers of instruction.
3. Implement an assessment or system of assessments for monitoring student growth and progress on supplemental, targeted and intensive tiers of instruction.
4. Use formative assessments to make day-to-day instructional decisions.
5. Develop curriculum-based and/or standards-aligned assessments to measure students' grade-level performance.
6. Ensure that learning communities are in place to engage in data-based discussions and decision-making.
7. Prioritize time within school schedules to support supplemental, targeted and intensive tiers.
8. Ensure that district and school budgets allow for hiring mathematics specialists and interventionists.
9. Use data-based decision-making to determine the level of intensity needed for student placement in interventions.

10. Ensure that evidence-based materials are utilized for all levels of instruction.
11. Align instruction and evidence-based practices across all levels of instruction.
12. Monitor student progress frequently to assess intervention effectiveness.
13. Base decisions for student instructional support on demonstrated growth.
14. Utilize Personalized Mathematics Plans with students who are identified as persistently at risk in mathematics.

Family and Community Engagement

1. Partner with Early Childhood Iowa, Head Start and other local educational and community organizations to complete the following:
    a. Collaboratively, create a vision for family and community partnerships as part of your local mathematics plan from PK-12.
    b. Identify responsible parties for leading the work.
    c. Budget and plan for continuous progress monitoring, adjustments and financial success.
2. Engage in the development and implementation of the Personalized Mathematics Plan for students not proficient in mathematics. Communicate student progress throughout the school year.
3. Provide families with multilingual mathematics resources, newsletters, instructional videos and tips on supporting mathematics at home. Ensure that these resources are accessible to help families understand how they can play an active role in their child's mathematical development. Consider creating a digital hub with easy-to-access resources and information in multiple languages.
4. Celebrate mathematical excellence through participation in the National Math Stars Program.

For further details of the Iowa CSMP and the state resources that will be provided to support implementation, see the full Iowa Comprehensive State Mathematics Plan.