

MODEL POLICY #41

NUMERACY

Why Adopt This Policy?

Strong math skills are directly tied to lifelong opportunity. Students with a strong foundation in numeracy are more likely to graduate, earn higher wages and succeed in the workforce. Yet across the nation, too many students fall behind in math during the early grades and never catch up.

The reason is clear: schools often wait too long to identify and address math struggles, despite early math skills being one of the strongest predictors of long-term academic achievement. Without timely intervention, small gaps in 5-year-old kindergarten through 2nd grade can grow into larger, more persistent deficits in later grades.

By adopting this numeracy policy, your district will ensure a proactive, research-based approach to ensure every child builds the foundational skills needed for success. This policy gives educators a clear, actional roadmap to strengthen math instruction and close the learning gaps before they widen. This practical and proven roadmap strengthens math instruction, raises student achievement, and ensures no child is left behind in this crucial subject.

Core Principles

- Math instruction should include, but not be limited to, explicit and sequential teacher-directed instruction as well as student-centered practice.
- Students should also have opportunities to deepen their understanding of math concepts and demonstrate mastery by applying them through practice, problem-solving, and real-world applications.
- Students need early exposure to foundational number sense and early operations.
- Frequent and objective progress monitoring must guide instruction.
- Interventions should be immediate, intensive, and measurable.
- Parents must be informed and equipped to support learning at home.

Policy

Intent

It is the intent of this Board to foster numeracy across all schools in the District in an effort to increase mathematical proficiency in all students. To do this, the Board shall ensure the District schools are:

- A. Monitoring early knowledge of numbers, relations, and operations to ensure students are on the path toward arithmetic fluency;

- B. Using a Multi-Tiered System of Support (“MTSS”) framework to provide effective instruction and intervention to at-risk students;
- C. Providing parental notification to parents whose students are falling behind in mathematics;
- D. Requiring instruction including but not limited to explicit and teacher-directed instruction; and
- E. Providing professional learning, coaching, and incentives to teachers delivering math instruction and interventions.

Definitions

“Arithmetic Fluency” means the efficient, accurate, and relatively effortless mental production or knowledge of standard algorithms in order to compute any sum, difference, product, or quotient of whole numbers.

“Math fact fluency” means the efficient, accurate, and relatively effortless mental production of sums and products of the numbers 0 through 10.*

A student is **“At Risk”** in mathematics if the student scores below the 25th percentile on the annual educational assessment for grades 3rd through 8th grade or if the student scores below the 25th percentile on the assessment for students in 5-year-old kindergarten through 2nd grade (as indicated by the publisher of the assessment).

“Early operations” refers to pre-math skills like sorting, matching, counting, shapes and colors, and spatial reasoning.

“Foundational Number Sense” means a student’s ability to understand and work with numbers in a meaningful way, including: counting, recognizing number relationships, understanding quantities, the ability to estimate or approximate quantities and measurements, and grasping the basic operations of addition, subtraction, multiplication, and division and understanding how they relate to each other.

“Inadequate rate of progress” is when it is determined a student is not likely to demonstrate grade-level skills by the end of the school year.

“Individualized Math Plan” means a math plan provided to each student enrolled in 5-year-old kindergarten through 8th grade who has been identified as “at-risk” under this policy. This individualized plan shall do at least all of the following:

1. **Assessment:** Identify the student’s specific early math skill deficiencies based on the applicable assessment;
2. **Goal Setting:** Create goals and benchmarks for the student’s progress towards grade-level mathematics skills;
3. **Monitoring:** Determine how the student’s progress will be monitored, including:
 - a. Monitor student progress at least weekly using the method described in the student’s individualized math plan;
 - b. Use weekly progress monitoring to determine whether the student demonstrates an inadequate rate of progress;

* Nicole M. McNeil *et al*, *What the Science of Learning Teaches Us About Arithmetic Fluency*, April 29, 2025 (available at: <https://journals.sagepub.com/doi/10.1177/15291006241287726>).

- c. Provide a description of the interventions and any additional instructional services that will be provided to the student to address the student's early math skill deficiencies (including, but not limited to: foundational number sense, early operations, real-world problem solving, procedural fluency, measurement & estimation, conceptual understanding, productive dispositions);
4. **Instructional Plan:** Determine which program the student's teacher will be using to provide mathematics instruction to the student;
5. **Parental Engagement:** Provide strategies the student's parents are encouraged to use to help the student achieve grade-level mathematics skills;
6. **Additional Services:** Describe any additional services available and appropriate to accelerate the student's early mathematical skills;
7. Provide a copy of the student's individualized math plan to the parents and obtain a signature of the parent;
8. Notify the student's parents of the student's progress after providing the interventions described for ten (10) weeks.

"Multi-Tiered Systems of Support" or MTSS is a framework that uses a layered approach to provide students with the support they need to succeed in their math fact and arithmetic fluency:

Tier 1 provides high-quality, core mathematics instruction to all students.

Tier 2 offers targeted small-group interventions for students identified as "at risk," in addition to Tier 1 instruction.

Students who are "at risk" shall be put on an individualized math plan (IMP). Progress shall be reviewed after 10 weeks to determine next steps.

Tier 3 delivers intensive, individualized interventions for students who do not make adequate progress in Tier 2.

The term **"Parent(s)"** refers to the student's biological parents, legal guardian or other person who is legally responsible for the welfare of the child and can make educational decisions on their behalf.

"Retrieval Practice" means the process of helping students strengthen their memory by regularly recalling what they've already learned. This does not just mean "fact retrieval," but also includes procedural practice and remembering problem contexts.

Numeracy Implementation

This Board shall ensure that a quality mathematics curriculum, instructional method, and instructional materials are used for all students in the District. This curriculum, instructional method, and instructional materials shall include, but not be limited to, direct, uninterrupted and explicit instruction using at least all of the following for 5-year-old kindergarten through 8th grade:

1. Retrieval practice;
2. Sufficient time for comparing and discussing multiple solution strategies and math representations;
3. Early operations instruction;
4. Timed practice only after students demonstrate accuracy in their mathematics skills.

Where possible, the Board shall ensure that students in grades 5-year-old kindergarten through 8th grade are receiving early operations instruction across instructional disciplines.

Where possible, the Board shall ensure that students in grades 5-year-old kindergarten through 8th grade receive an average of 60 minutes per day of math instruction.

The Board shall ensure that teachers receive instructional materials aligned with best practices in developing numeracy.

The district shall ensure that, at least annually, professional learning opportunities are available for teachers and staff in mathematics strategies and instruction.

The district shall provide professional learning that equips teachers to analyze assessment data to identify student learning gaps and use that information to guide lesson planning and to communicate effectively with parents about their child's progress and how they can support learning at home.

Monitoring and Evaluation

Annually, each student in 5-year-old kindergarten through 3rd grade shall be assessed in mathematics or mathematic concepts appropriate for each grade level using an assessment chosen by the Board. This assessment must evaluate students' foundational number sense, early operations, and the building blocks of math fact and arithmetic fluency.

Students in grades 3-8 shall be assessed annually on mathematics on the annual educational assessment required by federal law. See legal analysis.

Any student who is "at-risk" according to the relevant assessment shall be put on an IMP.

Timeline and Parental Notification

1. If the student was identified as "at-risk," an IMP must be created within ten (10) days after the results are received.
2. A copy of the IMP shall be provided to parents within three (3) school days of the plan being finalized.
3. Parents must be notified of student progress after ten (10) weeks of intervention.
4. If the student is not making adequate progress, then additional summer supports and resources for at-home practice shall be provided.



Legal Analysis — National

The Federal government is prohibited from establishing state academic standards — including standards for mathematics. 20 U.S.C. § 7907(d)(1). No funds can be used by the Federal government to "endorse, approve, develop, require, or sanction any curriculum, including any curriculum aligned to the Common Core State Standards...or any other academic standards." 20 U.S.C. § 7907(b).

However, each state is required to provide an assurance that the state has adopted its own "challenging academic content standards and aligned academic achievement standards." 20 U.S.C. § 6311(b)(1)(A). Every state must have these challenging academic content standards for the subject of mathematics. 20 U.S.C. § 6311(b)(1)(C).

Each state must also implement a set of "high-quality student academic assessments in mathematics," and these assessments for math must be administered each year in grades 3–8 as well as once during grades 9–12. 20 U.S.C. §§ 6311(b)(2)(A) and 6311(b)(2)(B)(v)(I)(aa–bb).



Legal Analysis — Wisconsin

School boards must adopt academic standards for mathematics. Wis. Stat. § 118.30(1g)(a)1. The Wisconsin Department of Public Instruction provides “state standards” as a model for school boards, but boards must adopt the academic standards that best serve their own local communities. The May 2021 version of the Wisconsin Standards for Mathematics can be found [HERE](#).*

Using these standards, school boards must maintain a written, sequential curriculum plan for mathematics. Wis. Stat. § 121.02(1)(k)1. The plans must specify objectives, course content, and resources, and must include a program evaluation method. Wis. Stat. § 121.02(1)(k)1. Each school board must provide an instructional program designed to give students basic skills, including “the ability to perform basic arithmetical calculations” as well as “analytical skills, including the ability to think rationally, solve problems, use various learning methods, gather and analyze information, and make critical and independent judgements...” Wis. Stat. § 118.01(2)(a)1.–2.

In elementary, middle, and high school grades, a school board must provide instruction in mathematics. Wis. Stat. § 121.02(1)(L)1–3; Wis. Admin. Code § PI § 8.01(2)(k). In order for a student to graduate from high school in Wisconsin, he or she must take at least three credits of mathematics. Wis. Stat. § 118.33(1)(a)1.c. Whether or not a course counts as a mathematics course for purposes of satisfying this requirement is up to the school board’s discretion. Wis. Stat. § 118.33(1)(a)1.c.

The State Superintendent must develop an educational assessment program to measure objectively the adequacy and efficiency of educational programs offered by public schools. Wis. Stat. § 115.28(10). This program shall include methods by which student achievement in mathematics can be objectively measured in each year. Wis. Stat. § 115.28(10). The Department of Public Instruction (“DPI”) has chosen the “Wisconsin Forward” exam for mathematics. This assessment is administered to students in grades 3–8 each spring. Information on this assessment can be found [HERE](#).†

Also, as part of the State Superintendent duties, the DPI must publish a school and school district accountability report that includes student achievement in mathematics, growth in student achievement in mathematics, and gap closure in student achievement in mathematics. Wis. Stat. § 115.385(1)(a)1.–3. These reports can be found directly on DPI’s website [HERE](#).‡ However, for a more readable and interactive version of the school reports, navigate to WILL’s school scorecard page, which can be found at www.knowmyschoolwi.org.

* <https://dpi.wi.gov/sites/default/files/imce/math/files/DPI-WI-Mathematics-Standards.pdf>.

† <https://dpi.wi.gov/math/assessment>.

‡ <https://dpi.wi.gov/accountability/report-cards>.