



# K-8 MATH

## *Comprehensive Model Policy*

### *ExcelinEd Policy Toolkit*

{Title} The (*insert name of Act or policy*)

{Intent} It is the intent of the Legislature is that each student is prepared for success in Algebra I starting with 60 minutes of daily math instruction to build math proficiency in grades Kindergarten through 8 using effective, standards aligned instructional materials; that district school board policies facilitate educator supports, math instruction, and intervention services to address student math needs; and that each student and his or her parent or caregiver be regularly informed of that student's math progress.

#### **A. Definitions**

1. Department. The state Department of Education.
2. Math difficulty. Demonstrated by a student scoring below proficient on the state math assessment or equivalent measure as determined by the Department.
3. Instructional Materials. Any items, resources, and materials used to provide instruction to students during daily lessons, interventions, tutoring, or self-directed activities.
4. Intervention. A specific program, activity, or set of steps used to help students improve in an area of need that may include additional time, high-dosage tutoring, small group instruction, etc.
5. Screening. Assessment that identifies students who are not meeting grade-level learning goals and checks to see if students might be at risk for math difficulties.
6. Progress monitoring. Maintaining data and evaluating the effectiveness of instruction and intervention using student achievement and growth data.
7. Explicit instruction. A purposeful way of overtly instructing students using a clear-cut and finite way of teaching that includes both instructional and delivery procedures.

#### **B. Instructional Materials.** The Department shall provide a list of effective, standards-aligned math instructional materials from which districts shall select.

1. Math instructional materials should be evaluated based on: Focus and Coherence, Rigor and Mathematical Practices and Instructional Supports and Usability.
2. Instructional materials must simultaneously develop conceptual understanding, computational fluency, and problem-solving skills.
3. Instructional materials should assist teachers to emphasize the positive cumulative effects of students' conceptual understanding of mathematical operations, fluent execution of procedures, and fast access to number combinations to support effective and efficient problem-solving.
4. Instructional materials shall support students' abilities to attain automatic recall and fluency with addition, subtraction, multiplication and division facts and a solid understanding of key concepts of the communicative, distributive, and associative properties.

#### **C. System of Support for Educators.** The Department shall require districts to provide a system of support for all educators who teach math in grades Kindergarten through 8 to ensure they have the knowledge and skill to teach math lessons to all students through any of the following means:

1. Professional learning aligned to the recommendations of the National Mathematics Advisory Panel for teachers in grades Kindergarten through 8, and for administrators to ensure support of teachers in the classroom, on topics including:



- i. focusing on foundational math skills, defined as a blending of concepts, procedures, strategies, problem-solving, and disposition; and
  - ii. using an approved assessment system(s) selected by school districts to ensure teachers have the knowledge and skill to administer the assessment and use the assessment data to inform instruction based on student needs.
2. Job-embedded coaching support for educators who teach math in grades Kindergarten through 8 that shall include the following:
  - i. On-site teacher training on evidence-based math instruction and data-based decision making;
  - ii. Demonstrated lessons; and
  - iii. Co-teaching or observation with immediate feedback for improving instruction.
3. Educator preparation programs that prepare candidates seeking licensure for elementary education with training and instruction to:
  - ii. Effectively teach foundational math skills explicitly and systematically;
  - iii. Implement math instruction using high-quality instructional materials;
  - iv. Provide effective instruction and interventions for students with math difficulty; and
  - v. Understand and use student data to make instructional decisions.
4. Departmentalize math instruction, as needed, to ensure all students have effective math instruction.

C. **Math micro credential.** The Department shall create a micro credential for K-8 math for experienced and highly skilled teachers continuously improve their practice to meet the ever-increasing math needs of their students. The micro credential shall be a competency-based validation that a teacher has mastered specific classroom math practices and can use it effectively in the classroom.

D. **System of Support for Educators.** The Department shall require districts to provide a system of support for all educators who teach math in grades Kindergarten through 8 to ensure they have the knowledge and skill to teach 60-minute daily math lessons to all students. The system of support shall include:

- (1) An approved list of one or more reliable and valid math assessment systems for school district use for screening and monitoring student progress toward grade level math. The math assessment system shall:
- (2) Provide a screener to be administered within 30 days of the beginning of the school year with progress monitoring capabilities and a diagnostic tool to support teachers with targeting instruction based on student needs;
- (3) Measure, at a minimum, grade level-appropriate knowledge and skill with whole numbers, fractions, aspects of measurement and geometry with conceptual and procedural knowledge; and
- (4) Identify students who have math difficulties as defined by this Act.

In determining which assessment systems to approve for use by school districts, the Department shall also consider, at a minimum, the following factors:

The time required to conduct the assessment, with the intention of minimizing the impact on instructional time;

The timeliness in reporting assessment results to teachers, administrators, and parents; and

The integration of assessment and instruction the system provides.

Professional learning aligned to the recommendations of the National Mathematics Advisory Panel for teachers in grades Kindergarten through 8, and for administrators to ensure support of teachers in the classroom, on topics including:

focusing on foundational math skills, defined as a blending of concepts, procedures, strategies, problem-solving, and disposition; and

using an approved assessment system(s) selected by school districts to ensure teachers have the knowledge and skill to administer the assessment and use the assessment data to inform instruction based on student needs.



- E. Math Instruction and Intervention.** Districts shall adopt high-quality instructional materials and offer evidence-based math intervention programs to each K-8 student who exhibits math difficulty as defined in Section A of this Act. The math intervention program shall be provided in addition to daily math instruction that is provided to all students in the general education classroom. The math intervention program shall be:
1. Provided to all K-8 students identified with math difficulty as determined by the Department-approved assessment system administered within the first thirty (30) days of school;
  2. Explicit and systematic instruction in concepts, procedures, strategies, reasoning, and disposition with a specific focus on whole numbers, fractions and aspects of measurement and geometry;
  3. Targeted individual or small group math intervention for at least 30 minutes 3-5 times per week or 60 hours in a school year based on student need, including explicit and systematic instruction with more detailed explanations, more extensive opportunities for guided practice, and more opportunities for error correction and feedback.
  4. Delivered by a highly effective math teacher as demonstrated by student math performance data and teacher performance evaluations.
  5. Continuously monitor math progress of each student's math skills throughout the school year and adjust instruction according to student needs; and
  6. Implemented during regular school hours and as needed before and after school.
- F. Parent Notification.** The parent of any K-8 student who exhibits math difficulty at any time during the school year must be notified in writing, in language understandable to the parent, of the exact nature of the student's difficulty in math no later than 15 calendar days after the identification of the math difficulty, and the written notification must include:
1. That his or her child has been identified as having math difficulty, and a math improvement plan will be developed by the teacher, principal, other pertinent school personnel, and the parent(s).
  2. A description of the current services provided to the child.
  3. A description of the proposed effective, research-based math interventions and supplemental instructional services and supports provided to the child designed to remedy the identified area(s) of math difficulty.
  4. Notification that the parent will be informed in writing of their child's progress toward grade-level math at least monthly.
  5. Strategies for parents to use at home to help their child succeed in math.
- G. Math Difficulty and Math Improvement Plan.** Any student in grades K-8 who exhibits a math difficulty at any time, based on the Department-approved assessment system, shall receive an individual math improvement plan no later than 30 days after identifying it. The math improvement plan shall be created by the teacher, principal, other pertinent school personnel and the parent(s), and shall describe the effective, evidence-based math intervention services using explicit, systematic instruction the student will receive to remedy the math difficulty. Each student must receive intensive math intervention until the student no longer has math difficulty by demonstrating proficiency as described in Section A of this Act.
- H. Summer Math Activities.** The school district must provide summer math activities to all K-8 students in the district scoring at the lowest achievement level on the state assessment in math. Summer math activities must be effective, research-based strategies. The district may provide the following for summer math activities:
1. Summer school and tutoring provided by highly effective math teacher as demonstrated by student math performance data and teacher performance evaluations.
  2. A "Math at Home" plan outlined in a parental contract, including participation in parent training workshops and/or regular parent-guided home math activities. The Department shall create a list of free, standards aligned activities and resources parents and districts may use to support students at home.



3. Activities and programs that are proven effective through data and research as approved by the Department.
- I. **State Board Authority and Responsibilities.** The State Board of Education shall have authority to enforce this chapter.