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3 SENATE FINANCE AND TAXATION EDUCATION COMMITTEE SUBSTITUTE FOR
4 SB171

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9 SYNOPSIS: This bill would establish the Alabama
10 Numeracy Act and would prohibit the use of the
11 curriculum standards, commonly known as the Common
12 Core State Standards, in public K-12 schools.

13 This bill would provide further for
14 mathematics instruction in public schools and would
15 provide a means for increasing grade level
16 proficiency in mathematics for public school
17 students in grades K-5.

18 This bill would establish and provide for
19 the duties of an Elementary Mathematics Task Force,
20 a Postsecondary Mathematics Task Force, and an
21 Office of Mathematics Improvement within the State
22 Department of Education.

23 This bill would provide for guidelines for
24 mathematics instruction in institutions of higher
25 education.

26 This bill would provide for screener,
27 diagnostic, and formative assessments; the

1 monitoring of under performing schools; state
2 academic intervention for low performing schools;
3 the Alabama Summer Mathematics Achievement Program
4 for all students in grades four and five with
5 deficiencies, mathematics intervention services,
6 and funding.

7 This bill would provide specific
8 instructional practices for elementary school
9 educators, would specify the qualifications of
10 mathematics coaches and require their presence in
11 schools, and would require the State Superintendent
12 of Education to develop a K-5 mathematics coach
13 endorsement program and provide for the award of
14 the endorsement to certain qualified mathematics
15 coaches.

16 This bill would also require the State
17 Superintendent of Education and the State Board of
18 Education to terminate the flexibility waiver
19 agreement with the United States Department of
20 Education pertaining to the federal Every Student
21 Succeeds Act, which includes the adoption of the
22 Common Core State Standards.

23
24 A BILL
25 TO BE ENTITLED
26 AN ACT
27

1 Relating to public education; to establish the
2 Alabama Numeracy Act and prohibit the use of the Common Core
3 State Standards in public K-12 schools; to implement steps to
4 improve mathematics proficiency of public school K-5 grade
5 students and ensure that those students are proficient in
6 mathematics at or above grade level by the end of fifth grade
7 by monitoring the progression of each student from one grade
8 to another, in part, by his or her proficiency in mathematics.

9 BE IT ENACTED BY THE LEGISLATURE OF ALABAMA:

10 Section 1. Sections 1 to 17, inclusive, shall be
11 known and may be cited as the Alabama Numeracy Act.

12 Section 2. For the purposes of Sections 1 to 17,
13 inclusive, the following terms shall have the following
14 meanings:

15 (1) ALGEBRAIC REASONING. Recognizing and
16 generalizing about patterns and relationships; representing
17 patterns and relationships by analyzing structures of the
18 patterns; and using mathematical models (concrete, pictorial,
19 and abstract) to represent patterns.

20 (2) AMSTI. The Alabama Mathematics, Science, and
21 Technology Initiative.

22 (3) CARDINALITY. Understanding that the last number
23 word said when counting tells how many objects have been
24 counted.

25 (4) COMPUTATIONAL FLUENCY. Possessing efficient and
26 accurate methods for computing.

1 (5) CONCEPTUAL UNDERSTANDING. The ability to reason
2 in settings involving the careful application of concept
3 definitions, relations, or representations of either.

4 (6) DEPARTMENT. The State Department of Education.

5 (7) DYSCALCULIA. A term used to refer to a pattern
6 of learning difficulties characterized by problems processing
7 numerical information, learning arithmetic facts, performing
8 accurate or fluent calculations, difficulties with
9 mathematical reasoning, and difficulties with word reasoning
10 accuracy.

11 (8) EARLY NUMERACY SCREENING. Standardized measures
12 that assess a student's fluency in foundational mathematics
13 skills.

14 (9) FLUENCY. The ability of students to choose
15 flexibly among methods and strategies to solve contextual and
16 mathematical problems, to understand and explain their
17 approaches, and to produce accurate answers efficiently.

18 (10) FULL SUPPORT SCHOOL. The lowest five percent
19 performing elementary schools as measured by mathematics
20 proficiency on the approved state summative assessment, and
21 thereafter increasing to include an additional one percent
22 every two years until support is administered in the lowest 10
23 percent performing elementary schools.

24 (11) LIMITED SUPPORT SCHOOLS. The lowest six to 25
25 percent performing elementary schools as measured by
26 mathematics proficiency on the state approved summative
27 assessment, and thereafter decreasing one percent every two

1 years until support is administered in the lowest 11 to 25
2 percent performing elementary schools.

3 (12) LOCAL BOARD OF EDUCATION. A county or city
4 board of education.

5 (13) LOCAL EDUCATION AGENCY. A county or city school
6 system operating public primary and secondary schools.

7 (14) MENTAL COMPUTATION. The process of working on a
8 problem and obtaining the exact or approximate answers
9 mentally without reliance on external tools.

10 (15) MULTI-TIERED SYSTEM OF SUPPORT. A tiered system
11 of supports that integrates assessment and intervention within
12 a school-wide, multi-level prevention system to maximize
13 student achievement and reduce behavioral problems. A
14 multi-tiered system of support promotes systems alignment to
15 increase efficiency and effectiveness of resources.

16 (16) NUMBER SENSE. The ability to represent numbers
17 in multiple ways, numerical magnitude estimation, selecting
18 and using benchmarks, such as tens or hundreds, decomposing
19 and recomposing number, understanding the effects of
20 operations on number, and performing mental calculation and
21 estimation.

22 (17) NUMERACY. The ability to understand and work
23 with numbers.

24 (18) PLACE VALUE UNDERSTANDING. The understanding of
25 representations and concepts necessary to successfully process
26 multi-digit numbers.

1 (19) PROCEDURAL FLUENCY. The ability to apply
2 procedures accurately, efficiently, and flexibly; to transfer
3 procedures to different problems and contexts; to build or
4 modify procedures from other procedures; and to recognize when
5 one strategy or procedure is more appropriate to apply than
6 another.

7 (20) RESPONSE TO INTERVENTION. A process within the
8 system of a multi-tiered system of support framework. Response
9 to intervention is part of the data-based decision-making
10 process within progress monitoring where team members review
11 data to determine how students are responding to the
12 interventions in place.

13 (21) SPATIAL REASONING. The capacity to mentally
14 generate, transform, and rotate a visual image and thus
15 understand and recall spatial relationships between objects.

16 (22) STEM. Science, technology, engineering, and
17 mathematics.

18 (23) SUBITIZING. Quickly recognizing and naming how
19 many objects are in a small group without counting.

20 Section 3. (a) Within 90 days following the
21 effective date of this act, the State Superintendent of
22 Education shall convene an Elementary Mathematics Task Force
23 to provide the State Superintendent of Education and the State
24 Board of Education with vetted and approved recommendations
25 for high quality, evidence-based comprehensive mathematics
26 curricula for core instruction and mathematics intervention
27 programs or curricula, or both; a state continuum of educator

1 development for approved professional learning focusing on
2 foundational mathematics content knowledge including, but not
3 limited to, improving number sense, spatial skills, algebraic
4 reasoning, and mental computations for all full support and
5 limited support schools; and an annual list of vetted and
6 approved assessment systems which are valid and reliable
7 mathematics screening, diagnostic, and formative assessment
8 systems for selection and use by local education agencies.

9 (b) The membership of the Elementary Mathematics
10 Task Force shall include all of the following:

11 (1) The State Superintendent of Education.

12 (2) The Director of the Office of Mathematics
13 Improvement.

14 (3) Two public K-5 teachers, with experience in
15 implementing evidence-based mathematics teaching practices,
16 appointed by the Executive Secretary of the Alabama Education
17 Association.

18 (4) One public K-5 special education teacher, with
19 experience implementing evidence-based mathematics teaching
20 practices, appointed by the State Superintendent of Education.

21 (5) One elementary AMSTI mathematics specialist,
22 with experience supporting school-based mathematics coaches,
23 appointed by the Alabama STEM Council.

24 (6) One elementary school-based mathematics coach,
25 with experience in facilitating professional development,
26 appointed by the Alabama Council of Teachers of Mathematics.

1 (7) Two public elementary school principals, with
2 experience supporting mathematics coaching, appointed by the
3 Council for Leaders in Alabama Schools.

4 (8) One instructor employed by a public institution
5 of higher education, with experience teaching elementary
6 mathematics methods, appointed by the Alabama Commission on
7 Higher Education.

8 (9) One local superintendent of education, with
9 experience supporting schools with mathematics coaches,
10 appointed by the School Superintendents of Alabama.

11 (10) One local board of education member, appointed
12 by the Alabama Association of School Boards.

13 (11) One AMSTI Director or assistant director, with
14 experience teaching and supporting grades K-5 mathematics,
15 appointed by the State Superintendent of Education.

16 (12) One member of business and industry, with
17 experience in employing individuals in occupations that are
18 STEM focused and in demand, appointed by the Governor.

19 (13) Three additional members, appointed by the
20 Governor.

21 (c) Members appointed to the Elementary Mathematics
22 Task Force pursuant to subdivisions (3) through (7) of
23 subsection (b) shall serve an initial term of one year and may
24 be reappointed to serve one additional two-year term. Members
25 appointed to the Elementary Mathematics Task Force pursuant to
26 subdivisions (8) through (13) of subsection (b) shall serve an
27 initial term of two years and may be reappointed to serve one

1 additional two-year term. Thereafter, each member of the
2 Elementary Mathematics Task Force shall be appointed to serve
3 a two-year term and may be reappointed to serve one additional
4 two-year term. All appointing authorities shall coordinate
5 their appointments to ensure the Elementary Mathematics Task
6 Force membership is inclusive and reflects the racial, gender,
7 geographic, urban, rural, and economic diversity of the state.
8 The appointing authorities shall fill vacancies by appointment
9 for the unexpired terms according to the process outlined in
10 this section.

11 (d) The members of the Elementary Mathematics Task
12 Force shall be reimbursed through the department for expenses
13 incurred in the performance of their duties for the Elementary
14 Mathematics Task Force in the same manner and at the same rate
15 as is provided for state employees. Subject to appropriations,
16 nothing herein shall limit payment for their service.

17 (1) The Director of the Office of Mathematics
18 Improvement shall serve as chair, and a vice chair shall be
19 elected by the membership of the Elementary Mathematics Task
20 Force. If the position of director is vacant, the vice chair
21 shall serve as chair until the State Superintendent of
22 Education appoints a new director.

23 (2) The Elementary Mathematics Task Force shall meet
24 in regular session at least four times a year. The Elementary
25 Mathematics Task Force shall set meeting dates and times, set
26 agendas, vote, and develop recommendations for the State Board
27 of Education in collaboration with the department, through the

1 Office of Mathematics Improvement. A majority of the members
2 of the Elementary Mathematics Task Force shall constitute
3 a quorum for the transaction of business. Should a quorum not
4 be present on the day appointed for any meeting, those present
5 may adjourn from day to day until a quorum is established.

6 (e) Each approved assessment system for grades K-5
7 shall measure, at a minimum, all of the following:

8 (1) Number sequence.

9 (2) One-to-one correspondence.

10 (3) Cardinality.

11 (4) Oral and written names for numbers based on
12 grade level standards.

13 (5) Subitizing.

14 (6) Number relationships.

15 (7) Addition, subtraction, multiplication, and
16 division in word problems with a variety of problem types and
17 structures based on grade level standards.

18 (8) Connecting addition, subtraction,
19 multiplication, and division to place value based on grade
20 level standards.

21 (9) Computational fluency with whole numbers,
22 fractions, and decimals based on grade level standards.

23 (10) Spatial reasoning based on grade level
24 standards.

25 (f) In determining which assessment systems to
26 recommend for use by local education agencies, the Elementary
27 Mathematics Task Force, in collaboration with the department,

1 through the Office of Mathematics Improvement, at a minimum,
2 shall also consider all of the following factors:

3 (1) The time required to conduct each assessment
4 with the intention of minimizing the impact on instructional
5 time.

6 (2) The level of integration of assessment results
7 with instructional support for educators and students.

8 (3) The time lines in reporting assessment results
9 for educators, administrators, and parents.

10 (4) The ability of the formative assessment system
11 to produce automatic reports for teachers, administrators, and
12 parents as required in Section 6.

13 Section 4. (a) There is created in the department an
14 Office of Mathematics Improvement, that shall be formed no
15 later than 90 days after the effective date of this act. The
16 State Superintendent of Education shall appoint a Director of
17 the Office of Mathematics Improvement whose exclusive focus is
18 K-5 mathematics. The director shall have experience in
19 administrative duties, as an elementary mathematics specialist
20 or coach, and in teaching mathematics in a public elementary
21 school. Each AMSTI region of the state shall have at least one
22 Office of Mathematics Improvement regional coordinator, based
23 on needs of the region, who has experience in training,
24 supporting, coaching, and teaching mathematics in elementary
25 public schools focused on mathematics data analysis and
26 mathematics improvement.

1 (b) The Director of the Office of Mathematics
2 Improvement, in collaboration with the Elementary Mathematics
3 Task Force, shall do all of the following:

4 (1) Determine the scope and pace of scaling
5 mathematics coaches with the goal of placing one mathematics
6 coach for every 500 students before the 2027-2028 school year.

7 (2) Monitor the implementation of intensive
8 professional development on foundational mathematics content
9 knowledge, as recommended by the Elementary Mathematics Task
10 Force, for all full support and limited support schools.

11 (3) Monitor the implementation of screener
12 assessments, diagnostic assessments, and formative assessments
13 for grades K-2 and grades four and five to identify students
14 in need of support for key numeracy concepts. Implementation
15 shall begin with the 2023-2024 school year.

16 (4) Recommend training and support for educators for
17 the effective implementation and interpretation of diagnostic
18 tools. The diagnostic tool shall be used with students who
19 have been identified as struggling in mathematics based on
20 screeners, diagnostic assessments, benchmark assessments,
21 teacher observation, or any combination of the forgoing.

22 (5) Designate a team of educators to explore the
23 connection between difficulties with number sense and
24 dyscalculia, as well as possible effective screeners.

25 (6) Commit necessary resources to understanding the
26 needs of students struggling with number sense or dyscalculia,

1 or both, before implementing instructional practices or
2 assessments that could adversely affect student learning.

3 (7) Monitor AMSTI mathematics specialist support in
4 all full support and limited support schools.

5 (8) Monitor the implementation and progress of the
6 Alabama Summer Mathematics Achievement Program in full support
7 schools.

8 (9) Recommend changes and improvements to AMSTI, any
9 professional learning providers, and local education agencies
10 based on data collected and analyzed by the Office of
11 Mathematics Improvement.

12 (10) Participate in the development of the Alabama
13 Instructional Leadership framework.

14 (c) Each Office of Mathematics Improvement regional
15 coordinator shall have experience as a K-5 mathematics
16 specialist or coach and experience teaching mathematics in a
17 public school.

18 (d) Office of Mathematics Improvement regional
19 coordinators, with the oversight of the director, shall
20 perform all of the following duties in full support and
21 limited support schools:

22 (1) Monitor the implementation of comprehensive
23 mathematics curricula for core instruction and intervention
24 programs or curricula, or both, approved by the Elementary
25 Mathematics Task Force.

26 (2) Monitor the implementation of a multi-tiered
27 system of support, including response to intervention to

1 monitor progress of struggling students, continually evaluate
2 the effectiveness of instruction, and make more informed
3 instructional decisions.

4 (3) Monitor the implementation of the intensive
5 professional development series on foundational mathematics
6 content knowledge.

7 (4) Support the Director of the Office of
8 Mathematics Improvement in monitoring the implementation of
9 approved formative assessments, screening assessments, and
10 diagnostic assessments recommended by the Elementary
11 Mathematics Task Force.

12 (5) Monitor and evaluate data collected from AMSTI
13 and local education agencies to ensure coaching aligns with
14 school needs and make recommendations for improvement to the
15 mathematics coaches as needed to increase student achievement,
16 collaboration, and support.

17 (6) Monitor the implementation and progress of the
18 Alabama Summer Mathematics Achievement Program in full support
19 schools.

20 Section 5. (a) Each K-5 teacher, with the full
21 support of his or her principal, shall do all of the
22 following:

23 (1) Dedicate an average minimum of 60 minutes per
24 day for Tier 1 mathematics instruction, for a minimum of 164
25 instructional hours per year.

26 (2) Use approved comprehensive mathematics curricula
27 for core instruction recommended by the Elementary Mathematics

1 Task Force, in addition to high quality print and online
2 resources to carefully plan units and lessons based on the
3 grade-level mathematics content standards.

4 (3) Build fluency with procedures on a foundation of
5 conceptual understanding, strategic reasoning, and problem
6 solving over time.

7 (4) Provide students access to tools, including
8 technology, that support mathematical thinking.

9 (5) Provide a learning environment that promotes
10 student reasoning, student discourse, and student questioning
11 and critiquing the reasoning of their peers.

12 (6) Consistently implement the evidence-based
13 mathematics teaching practices as recommended by the
14 Elementary Mathematics Task Force.

15 (7) Gather evidence of student understanding to
16 inform the planning of next instructional steps.

17 (8) Provide students with descriptive and timely
18 feedback on assessments to include strengths, weaknesses, and
19 next steps for progress toward learning targets.

20 (b) An elementary school teacher should not engage
21 in any practice that minimizes sense making and understanding
22 of mathematics concepts.

23 Section 6. (a) (1) A kindergarten student or incoming
24 grades 1-5 student identified with a mathematics deficiency,
25 or who demonstrates the signs of dyscalculia, shall be
26 provided intensive mathematics interventions recommended by
27 the Elementary Mathematics Task Force to address his or her

1 specific mathematics deficiency. A K-5 student who exhibits a
2 mathematics deficiency based on an approved screener
3 assessment, diagnostic assessment, benchmark assessment, or
4 classroom formative assessment shall receive immediate
5 mathematics intervention.

6 (2) The mathematics teacher of the student receiving
7 mathematics intervention shall prepare reports that coincide
8 with grading periods and a comprehensive end of year report
9 detailing any mathematics intervention provided.

10 a. Reports shall include all of the following:

11 1. The name of the student.

12 2. The name of the teacher providing the
13 intervention.

14 3. The mathematics deficiency or deficiencies
15 addressed.

16 4. The Elementary Mathematics Task Force recommended
17 mathematics intervention programs or curricula, or both, used
18 to improve the student's deficiency or deficiencies.

19 5. Mathematics intervention services and supports
20 implemented from the list provided in subsection (c).

21 6. Any tools used to monitor student progress.

22 7. Student growth.

23 b. Reports that coincide with grading periods, and a
24 comprehensive end of year report, shall be provided to the
25 parent or legal guardian of the student and his or her
26 mathematics teacher for the immediately succeeding school
27 year. The reports shall include all of the following:

1 1. The information provided in the reports under
2 paragraph a.

3 2. Student growth for the grading period and school
4 year based on Elementary Mathematics Task Force approved
5 formative mathematics assessments and the State Board of
6 Education approved summative mathematics assessment.

7 3. Mathematics strengths and areas in need of
8 improvement of the student.

9 (b) Screener or approved assessment system reports
10 may also be included with the grading period and comprehensive
11 end of year reports.

12 (c) Each local education agency shall provide
13 mathematics intervention services for grades K-5 students
14 identified with mathematics deficiencies. Those services shall
15 include, but not be limited to, any of the following:

16 (1) Working with an effective or highly effective
17 teacher of mathematics, as demonstrated by student mathematics
18 performance data and teacher performance evaluations.

19 (2) Effective instructional strategies to accelerate
20 student progress provided by a highly qualified teacher who
21 has training and experience in the implementation of teaching
22 mathematics through problem solving; providing an environment
23 for students to make sense of cognitively demanding tasks;
24 providing justifications for strategies and solutions; making
25 connections with the mathematics; and receiving feedback about
26 mathematics ideas.

1 (3) Mathematics intervention services and supports
2 to improve any identified area of mathematics deficiency
3 including, but not limited to, any of the following:

4 a. Additional instructional time devoted to
5 evidence-based mathematics instruction and interventions
6 recommended by the Elementary Mathematics Task Force,
7 including engaging, high quality, and rigorous supplemental
8 sessions.

9 b. Providing daily targeted small group mathematics
10 intervention based on student needs.

11 c. Providing supplemental, evidence-based
12 mathematics interventions before or after school, or both,
13 delivered by a highly qualified teacher of mathematics or
14 trained tutor.

15 d. Frequently monitoring the progress of the
16 mathematics skills of each student throughout the school year
17 and adjusting instruction according to student need.

18 e. Incorporating material from a previous grade to
19 link understanding to grade level curriculum.

20 f. Incorporating a concrete, semi-concrete, abstract
21 approach.

22 g. Incorporating explicit systematic strategy
23 instruction, including summarizing key points and reviewing
24 vocabulary prior to the lesson.

25 h. Utilizing mathematics strategies or programs,
26 grounded in the science of learning, that accelerate student
27 mathematics achievement.

1 i. Attending to conceptual understanding as well as
2 procedural fluency.

3 j. Providing a home based mathematics plan,
4 including participation in family training workshops or
5 regular family-guided home mathematics activities.

6 (d) Beginning with the 2023-2024 school year:

7 (1) Kindergarten students shall be assessed by
8 November using an early numeracy screener recommended by the
9 Elementary Mathematics Task Force to identify those students
10 in need of support for key numeracy concepts. A kindergarten
11 student identified by the screener as having a mathematics
12 deficiency shall be assessed using the diagnostic assessment
13 to identify student misconceptions and gaps in mathematical
14 knowledge or skills.

15 (2) Incoming first and second grade students shall
16 be assessed using an early numeracy screener recommended by
17 the Elementary Mathematics Task Force a minimum of two times a
18 year to identify those students in need of support for key
19 numeracy concepts. A first or second grade student identified
20 by the screener as having a mathematics deficiency shall be
21 assessed using the diagnostic assessment to identify student
22 misconceptions and gaps in mathematical knowledge or skills.

23 (3) Incoming fourth and fifth grade students shall
24 be assessed using a fractional reasoning screener approved by
25 the Elementary Mathematics Task Force a minimum of two times a
26 year to identify those students in need of support for
27 fractional reasoning. A fourth or fifth grade student

1 identified by the screener as having a mathematics deficiency
2 shall be assessed using the diagnostic assessment to identify
3 student misconceptions and gaps in mathematical knowledge or
4 skills.

5 (4) A K-5 student identified with a mathematics
6 deficiency through screeners, diagnostics, or formative
7 assessments shall be provided intensive mathematics
8 interventions recommended by the Elementary Mathematics Task
9 Force to address his or her specific needs.

10 (e) The Elementary Mathematics Task Force shall
11 recommend to the Office of Mathematics Improvement a guide for
12 developmental benchmarks to be used for determining
13 appropriate mathematics progress for K-5 mathematics
14 progression. The benchmarks shall include, but not be limited
15 to, the following grade level progressions.

16 (1) The first and second grade level shall include
17 all of the following:

- 18 a. Counting and recognizing whole numbers.
- 19 b. Comparing and ordering numbers.
- 20 c. Composing and decomposing numbers.
- 21 d. Operations with whole numbers.

22 (2) Incoming third grade level shall include all of
23 the following:

- 24 a. Operations of addition and subtraction.
- 25 b. Properties of operations.
- 26 c. Counting and recognizing numbers to 1,000.

1 d. Understanding models for addition and subtraction
2 within 1,000.

3 e. Comparing and ordering numbers up to 1,000.

4 f. Composing and decomposing numbers up to 1,000.

5 g. Solving one-step and two-step word problems
6 involving addition and subtraction within 100.

7 h. Using a variety of strategies and algorithms
8 based on place value.

9 (3) Incoming fourth grade level shall include all of
10 the following:

11 a. Representing unit fractions with area and length
12 models.

13 b. Representing equivalent fractions using a variety
14 of objects and pictorial models.

15 c. Understanding multiplication and division and
16 strategies for multiplication and division within 100.

17 d. Understanding the meanings of multiplication and
18 division of whole numbers involving equal-sized groups,
19 arrays, and measurement quantities.

20 e. Solving one-step and two-step word problems
21 involving addition and subtraction within 1,000 using a
22 variety of strategies and algorithms based on place value.

23 f. Generating and solving problem situations for a
24 given mathematical number sentence involving addition and
25 subtraction of whole numbers using a variety of strategies and
26 algorithms based on place value.

1 (4) Incoming fifth grade level shall include all of
2 the following:

3 a. Comparing and ordering whole numbers up to
4 1,000,000.

5 b. Comparing and ordering fractions and decimals to
6 hundredths.

7 c. Using place value understanding and properties of
8 operations to perform multi-digit arithmetic with whole
9 numbers.

10 d. Illustrating and explaining the product of two
11 factors using equations, rectangular arrays, and area models.

12 e. Adding and subtracting fractions and mixed
13 numbers with like denominators using fraction equivalence and
14 properties of operations.

15 f. Understanding the relationship between addition
16 and subtraction.

17 g. Multiplying a whole number and a fraction.

18 Section 7. (a) Subject to the appropriations of the
19 Legislature, each K-5 school shall be assigned one mathematics
20 coach for every 500 students. If a school earns two or more
21 mathematics coaches, those coaches shall be hired and employed
22 simultaneously to ensure the effectiveness of the coaches. The
23 Director of the Office of Mathematics Improvement shall
24 determine the scope and pace of scaling mathematics coaches
25 with the goal of placing one mathematics coach for every 500
26 students before the 2027-2028 school year.

1 (b) A mathematics coach shall be employed by the
2 local education agency with funds appropriated by the
3 Legislature to support Sections 1 to 17, inclusive.
4 Mathematics coaches shall be employed pursuant to 200-day
5 contracts. The extra days beyond the nine-month contract shall
6 be used to train teachers, develop units of instruction and
7 materials to support instruction, as determined by school
8 data, and receive professional learning. Mathematics coaches
9 shall meet all of the following qualifications:

10 (1) Hold a valid Alabama professional educator
11 certificate in early childhood education, elementary
12 education, or special education.

13 (2) Have a minimum of five years of experience as an
14 early childhood, elementary, or special education teacher.

15 (3) Demonstrate expertise, as attested by a current
16 or former employing county or city superintendent of
17 education, in mathematics instruction and intervention and
18 early numeracy interventions, including dyscalculia
19 interventions.

20 (4) Hold a master's degree or have completed
21 professional development recommended by the Elementary
22 Mathematics Task Force, or both.

23 (c) The duties and responsibilities of a mathematics
24 coach employed pursuant to Sections 1 to 17, inclusive, shall
25 include all the following:

1 (1) Supporting the improvement of instruction with
2 an emphasis on Tier 1 instruction to ensure students do not
3 fall behind.

4 (2) Collaborating with the school principal and
5 faculty to establish and implement a strategic plan for
6 coaching and mathematics instruction to improve student
7 achievement in mathematics.

8 (3) Facilitating schoolwide mathematics professional
9 learning, including job-embedded assistance using coaching
10 strategies, including joint preplanning, modeling lessons,
11 co-teaching teaching lessons, targeted observation to collect
12 data, and debriefing.

13 (4) Modeling evidence-based mathematics
14 instructional and intervention strategies for teachers.

15 (5) Continuously mentoring and coaching teachers.

16 (6) Assisting teachers in using data to
17 differentiate mathematics instruction and to identify students
18 exhibiting the characteristics of dyscalculia and other
19 exceptionalities.

20 (7) Monitoring the progress of K-5 students in
21 mathematics through benchmark assessments at least three times
22 per year and making recommendations for modifying instruction
23 based on the individual needs of students and trends in
24 student data.

25 (8) Focusing solely as a mathematics coach for
26 schools with elementary grade students.

1 (9) Collaborating with teachers and grade-level
2 teams of teachers to foster the use of appropriate
3 instructional materials, including concrete materials,
4 necessary to ensure that students understand mathematical
5 concepts.

6 (10) Collaborating with grade level teams to develop
7 rigorous tasks, lessons, and assessments aligned with grade
8 level mathematics content standards; to facilitate the
9 analysis of student work samples and assessment data; and to
10 work in partnership with teachers to provide real-time
11 feedback and make next-step instructional decisions based on
12 the student evidence.

13 (11) Assisting teachers in using formative
14 assessments and analyzing student work to identify students
15 with misconceptions, students exhibiting characteristics of
16 dyscalculia, and students needing acceleration.

17 (12) Assisting teachers in administering early
18 numeracy screeners or diagnostic assessments, or both, in
19 grades K-2. The assistance of a mathematics coach may not
20 exceed two hours per week.

21 (13) Assisting teachers with administering
22 fractional reasoning screeners or diagnostic assessments, or
23 both, for students in grades four and five, subject to
24 legislative appropriation. The assistance of a mathematics
25 coach may not exceed two hours per week.

1 (14) Advocating, planning, and coordinating
2 opportunities, in conjunction with the principal, for
3 school-based family and community engagement in mathematics.

4 (15) Actively and cooperatively participating in any
5 Office of Mathematics Improvement regional coordinator and
6 AMSTI regional mathematics specialist visits and professional
7 learning to meet agreed upon personal outcomes and all school,
8 district, and state established mathematics goals.

9 (16) Engaging in ongoing learning opportunities to
10 grow in knowledge, skills, and expertise in mathematics.

11 (17) Facilitating the use of assessment data in all
12 tiers of mathematics instruction to assist in making decisions
13 that will move students to higher levels of performance in
14 mathematics.

15 (18) Planning or facilitating, or both, professional
16 learning opportunities that will assist teachers in targeting
17 student deficits; facilitate professional conversations;
18 foster student engagement; assess student learning; reflect on
19 professional practice; and identify next learning steps to
20 achieve state, district, and school goals in mathematics.

21 (19) Recording job duties and time spent with
22 teachers on a state-specified electronic platform.

23 (20) Supporting teachers in the authentic
24 integration of computer science and computational thinking
25 concepts within the mathematics classroom.

26 (d) A mathematics coach shall prioritize coaching in
27 mathematics and may not perform administrative duties, serve

1 in administrative roles, serve as a substitute teacher, serve
2 as a testing coordinator, serve as an interventionist, or
3 perform other school duties not focused on coaching or the
4 mathematics improvement of students.

5 (e) The State Superintendent of Education and each
6 local superintendent of education shall execute a memorandum
7 of understanding that includes a certification by the local
8 superintendent of education that each mathematics coach
9 employed satisfies the minimum qualifications established by
10 this section.

11 (f) The State Superintendent of Education, in
12 partnership with the Elementary Mathematics Task Force and the
13 Office of Mathematics Improvement, shall develop an
14 evidenced-based accountability system for measuring the
15 effectiveness of mathematics coaches employed pursuant to
16 Sections 1 to 17, inclusive, for improving teacher
17 professional learning and for increasing student growth and
18 proficiency on formative assessments recommended by the
19 Elementary Mathematics Task Force and the state approved
20 summative assessment.

21 (g) The State Superintendent of Education
22 shall submit a report to the Governor, the Lieutenant
23 Governor, the State Board of Education, the Speaker of the
24 House of Representatives, the President Pro Tempore of the
25 Senate, the Chair of the House Ways and Means Education
26 Committee, the Chair of the Senate Finance and Taxation
27 Education Committee, the Chair of the House Education Policy

1 Committee, and the Chair of the Senate Education Policy
2 Committee, no later than December 31, annually, on the status
3 of teacher professional learning and student growth and
4 proficiency based on formative assessments recommended by the
5 Elementary Mathematics Task Force and the state approved
6 summative assessment.

7 Section 8. (a) Beginning August 1, 2022, to
8 facilitate improvement in mathematics achievement in public
9 elementary schools, the department, through the Office of
10 Mathematics Improvement, shall identify full support and
11 limited support schools based on student proficiency at levels
12 3 and 4 on the state approved summative assessment.

13 (b) Initially, full support schools shall consist of
14 the lowest five percent performing public elementary schools
15 as measured by student mathematics proficiency on the state
16 approved summative assessment. Thereafter, the number of full
17 support schools shall be increased by an additional one
18 percent every two years until the lowest 10 percent performing
19 public elementary schools are included. Beginning August 1,
20 2023, the department, through the Office of Mathematics
21 Improvement, shall require full support schools to do all of
22 the following:

23 (1) Require all leadership and staff to actively and
24 collaboratively participate in any support provided by the
25 Office of Mathematics Improvement or the Office of School
26 Improvement.

1 (2) Require principals and assistant principals to
2 engage in and implement professional learning as determined by
3 the Office of Mathematics Improvement and the Office of School
4 Improvement.

5 (3) Use approved comprehensive mathematics curricula
6 for core instruction as recommended by the Elementary
7 Mathematics Task Force.

8 (4) Use approved mathematics intervention programs
9 or curricula, or both, for Tier 2 and Tier 3 interventions as
10 recommended by the Elementary Mathematics Task Force.

11 (5) Require all teachers involved in mathematics
12 instruction to engage in and implement professional learning
13 as determined by the Office of Mathematics Improvement and the
14 Office of School Improvement.

15 (6) Use approved formative assessments, screening
16 assessments, and diagnostic assessments as recommended by the
17 Elementary Mathematics Task Force.

18 (7) Implement a multi-tiered system of support,
19 including response to intervention, to monitor the progress of
20 struggling students, continually evaluate the effectiveness of
21 instruction, and improve instructional decisions.

22 (8) Support and respond to any request of the Office
23 of Mathematics Improvement or the Office of School
24 Improvement.

25 (c) Initially, limited support schools shall consist
26 of the lowest six to 25 percent performing public elementary
27 schools as measured by student mathematics proficiency on the

1 state approved summative assessment. Thereafter, the number of
2 limited support schools shall be decreased by an additional
3 one percent every two years until the lowest 11 to 25 percent
4 performing public elementary schools are included. Beginning
5 August 1, 2023, the department, through the Office of
6 Mathematics Improvement, shall require limited support schools
7 to do all of the following:

8 (1) Use approved comprehensive mathematics curricula
9 for core instruction as recommended by the Elementary
10 Mathematics Task Force.

11 (2) Use approved mathematics intervention programs
12 or curricula, or both, for Tier 2 and Tier 3 interventions as
13 recommended by the Elementary Mathematics Task Force.

14 (3) Require all teachers involved in mathematics
15 instruction to engage in and implement professional learning
16 as determined by the Office of Mathematics Improvement and the
17 Office of School Improvement.

18 (4) Use approved formative assessments, screening
19 assessments, and diagnostic assessments as recommended by the
20 Elementary Mathematics Task Force.

21 (5) Implement a multi-tiered system of support,
22 including response to intervention, to monitor the progress of
23 struggling students, continually evaluate the effectiveness of
24 instruction, and improve instructional decisions.

25 (6) Support and respond to any request of the Office
26 of Mathematics Improvement.

1 (d) Beginning in the 2022-2023 school year, annually
2 on or before September 30, each local education agency shall
3 report in writing to the department all of the following
4 information relating to the previous school year:

5 (1) By grade, the number and percentage of all K-5
6 students identified with a mathematics deficiency on an
7 Elementary Mathematics Task Force recommended mathematics
8 assessment.

9 (2) By grade, the number and percentage of students
10 screened for dyscalculia characteristics, the number and
11 percentage of students identified as demonstrating the
12 characteristics of dyscalculia and receiving dyscalculia
13 specific intervention, and the name of the dyscalculia
14 specific intervention being provided.

15 (3) By grade, the number and percentage of all K-5
16 students performing on grade level or above grade level; which
17 is defined as scoring level 3 or level 4 on the Alabama
18 Comprehensive Assessment Program, or any derivation thereof.

19 (4) The number and percentage of students starting
20 fifth grade with a mathematics score below grade level; which
21 is defined as scoring level 1 or level 2 on the Alabama
22 Comprehensive Assessment Program, or any derivation thereof.

23 (5) The number and percentage of fifth grade
24 students who started third grade with a mathematics deficiency
25 and completed fifth grade on grade level; which is defined as
26 scoring level 3 or level 4 on the Alabama Comprehensive
27 Assessment Program, or any derivation thereof.

1 (6) By grade, the number and percentage of eligible
2 students in grades four and five who attended the Alabama
3 Summer Mathematics Achievement Program, that included
4 intensive mathematics instruction.

5 (7) By grade, the number and percentage of all
6 students retained in grades K-5 based on mathematics
7 deficiencies.

8 (8) By school, the number of teachers who have
9 earned the K-5 mathematics coach endorsement.

10 (9) By school, the number and percentage of incoming
11 students in grades one and two identified as having a
12 mathematics deficiency.

13 (10) By school, the number and percentage of
14 incoming students in grades four and five identified as having
15 a fractional reasoning deficiency.

16 (e) The State Superintendent of Education shall
17 establish a uniform format for local education agencies to use
18 in reporting the information required by subsection (d). The
19 format shall be developed with input from local boards of
20 education and the Elementary Mathematics Task Force and shall
21 be provided to each local superintendent of education not
22 later than 90 days before the annual due date, as established
23 by the State Superintendent of Education. On or before
24 November 1, annually, the State Superintendent of Education
25 shall compile the information received from the local
26 education agencies into a state level summary and submit the
27 summary to the Governor, the Lieutenant Governor, the State

1 Board of Education, the President Pro Tempore of the Senate,
2 the Speaker of the House of Representatives, and the Director
3 of the Office of Mathematics Improvement, and shall
4 conspicuously publish the summary on the website of the
5 department.

6 (f) The State Superintendent of Education shall also
7 report mathematics growth and proficiency targets for all
8 students and all subgroups, as based on the state Every
9 Student Succeeds Act plan, or its successor, to the State
10 Board of Education, the Elementary Mathematics Task Force, and
11 the Director of the Office of Mathematics Improvement by
12 January 15, annually.

13 Section 9. (a) Each local education agency shall
14 provide the Alabama Mathematics Summer Achievement Program to
15 all students in grades four and five identified with a
16 mathematics deficiency.

17 (b) The Alabama Mathematics Summer Achievement
18 Program for grades four and five shall satisfy all of the
19 following:

20 (1) Be staffed with highly effective teachers of
21 mathematics as demonstrated by student mathematics performance
22 data, completion of professional learning as determined by the
23 Elementary Mathematics Task Force, and teacher performance
24 evaluations.

25 (2) Include not less than 40 hours, nor more than 70
26 hours of time spent in mathematics problem solving, based on
27 the severity of student need.

1 (3) Incorporate an Elementary Mathematics Task Force
2 recommended mathematics assessment system, that shall be
3 administered both at the beginning and end of each Alabama
4 Summer Mathematics Achievement Program, to measure student
5 progress.

6 (4) Coordinate with existing summer programs
7 conducted by the local education agency or in partnership with
8 community-based summer programs for students similarly
9 situated.

10 Section 10. Beginning January 1, 2023, the State
11 Superintendent of Education shall convene a working group,
12 including regional or national experts, or both, to create the
13 Alabama Multi-Tiered System of Support framework. This
14 framework shall outline the evidence-based best practices of
15 multi-tiered systems of support, which include response to
16 intervention.

17 Section 11. The department, through the Office of
18 School Improvement, shall do all of the following:

19 (1) Add educators experienced in the implementation
20 of teaching elementary mathematics through problem solving to
21 the Office of School Improvement.

22 (2) Add highly qualified staff with experience in
23 elementary school turnaround and improvement, as needed by
24 region, to the Office of School Improvement.

25 (3) Participate in professional learning relating to
26 reliable forms of evidence of teachers implementing
27 evidence-based mathematics teaching practices.

1 (4) Ensure that all Office of School Improvement
2 staff are trained and prepared to train local education agency
3 leaders, school leaders, and educators in implementing a high
4 quality multi-tiered system of support, including response to
5 intervention.

6 Section 12. (a) Beginning August 1, 2025, the
7 department, through the Office of School Improvement, the
8 Office of Mathematics Improvement, and any other sections
9 within the department, shall establish a coherent, sustained,
10 evidence-based system of assistance and support for schools
11 not showing specified levels of academic progress in
12 mathematics, reading, or both.

13 (b) Any full support school, as defined in this act
14 or the Alabama Literacy Act, that has not attained specified
15 levels of academic progress in mathematics, reading, or both,
16 as determined by the Office of School Improvement, shall
17 qualify for state academic intervention.

18 (c) The department, through the Office of School
19 Improvement, the Office of Mathematics Improvement, and any
20 other sections within the department shall work in
21 coordination with each local education agency to identify a
22 school improvement team for each full support school that
23 qualifies for state academic intervention, as provided in
24 subsection (b).

25 (d) The department, through the Office of School
26 Improvement, the Office of Mathematics Improvement, and any

1 other sections within the department shall clearly define the
2 powers and duties of each school improvement team.

3 (e) A school improvement team shall do all of the
4 following:

5 (1) Conduct a comprehensive on-site evaluation to
6 determine any causes for low student performance and lack of
7 progress of the school. The evaluation shall include, but not
8 be limited to, consultations with the local superintendent of
9 education, the local board of education, the school principal,
10 parents, other school personnel, and any other individual who
11 possesses pertinent information and knowledge about the
12 school.

13 (2) Assist in the development of an intensive school
14 turnaround plan focused on student achievement, which may
15 include areas beyond mathematics or reading, to facilitate the
16 imperative of overall school improvement. An intensive school
17 turnaround plan shall include, but not be limited to, all of
18 the following: Recommendations relating to the reallocation of
19 resources and technical assistance; changes in school
20 procedures or operations; professional learning focused on
21 student achievement for instructional and administrative
22 staff; intervention for individual administrators or teachers;
23 instructional strategies based on evidence based research;
24 waivers from state laws or rules; adoption of policies and
25 practices to ensure all groups of students satisfy the
26 proficiency level established by the state; extended
27 instructional time for low-performing students; strategies for

1 family engagement; incorporation of a teacher mentoring
2 program; and other actions considered appropriate by the
3 school improvement team.

4 (3) Subject to final approval of the intensive
5 school turnaround plan by the State Superintendent of
6 Education, present the intensive school turnaround plan to the
7 local board of education, the Director of the Office of
8 Mathematics Improvement, and the State Superintendent of
9 Education.

10 (4) Monitor the progress of the school in
11 implementing the intensive school turnaround plan using
12 formative and summative assessment data.

13 (f) If a school does not satisfy specified levels of
14 progress, as defined by the Office of School Improvement,
15 after implementing an intensive school turnaround plan for
16 four full academic years, the local board of education shall
17 implement one of the following school turnaround options:

18 (1) Mandate the complete reconstitution of the
19 school, removing all personnel, appointing a new principal,
20 and hiring new staff. Existing staff may apply for employment
21 at the newly reconstituted school.

22 (2) Pursue application for public charter school
23 status pursuant to Chapter 6F, Title 16, Code of Alabama 1975.

24 (g) Nothing in this section shall prohibit the State
25 Superintendent of Education, through the Office of Mathematics
26 Improvement, the Office of School Improvement, or any other
27 section within the department from engaging in strategic

1 planning and making recommendations to the local
2 superintendent of education or local board of education
3 regarding the operation of low performing schools including,
4 but not limited to, structural, governance model, grade
5 configuration, curriculum and instructional materials, and
6 personnel.

7 (h) For any school under state academic
8 intervention, on or before December 31, annually, the Office
9 of School Improvement, the Office of Mathematics Improvement,
10 and other relevant offices within the department shall report
11 to the Governor, the Lieutenant Governor, the State Board of
12 Education, the Speaker of the House of Representatives, the
13 President Pro Tempore of the Senate, the Chair of the House
14 Ways and Means Education Committee, the Chair of the Senate
15 Finance and Taxation Education Committee, the Chair of the
16 House Education Policy Committee, and the Chair of the Senate
17 Education Policy Committee on the progress of each full
18 support school under state academic intervention.

19 Section 13. (a) Beginning August 1, 2022, the State
20 Superintendent of Education, through the Office of Mathematics
21 Improvement, shall convene and oversee a Postsecondary
22 Mathematics Task Force to develop guidelines for institutions
23 of postsecondary education to train early childhood and
24 elementary mathematics teachers based on current research. The
25 guidelines shall include course structure and content based on
26 the recommendations of the National Council of Teachers of
27 Mathematics, the Conference Board of the Mathematics Sciences,

1 the United States Department of Education, and the Mathematics
2 Sciences Research Institute. Guidelines shall go into effect
3 on August 1, 2024. The membership of the Postsecondary
4 Mathematics Task Force shall include all of the following:

5 (1) The Director of the Office of Mathematics
6 Improvement.

7 (2) A certification administrator appointed by the
8 State Superintendent of Education.

9 (3) Two instructors employed by a public four-year
10 institution of higher education physically located within this
11 state, who have experience teaching elementary mathematics
12 methods, appointed by the Alabama Commission on Higher
13 Education.

14 (4) One department head of elementary education
15 employed by a public four-year institution of higher education
16 physically located within this state, appointed by the
17 Governor.

18 (5) One local superintendent of education, appointed
19 by the board of directors of the School Superintendents of
20 Alabama.

21 (6) One K-5 public school teacher with experience
22 mentoring teacher interns, employed at a school containing
23 grades K-5, appointed by the executive committee of the
24 Alabama Council of Teachers of Mathematics.

25 (7) One K-5 public school special education teacher,
26 with experience teaching elementary mathematics, appointed by
27 the State Superintendent of Education.

1 (8) One public school principal employed at a school
2 containing grades K-5, with experience with teacher interns,
3 appointed by the Council for Leaders in Alabama Schools.

4 (9) Two K-5 school-based mathematics coaches,
5 employed at a public school containing grades K-5, appointed
6 by the Executive Director of the Alabama STEM Council.

7 (10) Two K-5 mathematics specialists, employed at a
8 school containing grades K-5, appointed by the State
9 Superintendent of Education.

10 (11) Three additional members, appointed by the
11 Governor.

12 (b) The appointing authorities shall coordinate
13 their appointments to ensure the Postsecondary Mathematics
14 Task Force membership is inclusive and reflects the racial,
15 gender, geographic, urban, rural, and economic diversity of
16 the state.

17 (c) No later than December 31, annually, the Alabama
18 Commission on Higher Education shall submit to the Governor,
19 the Lieutenant Governor, the Speaker of the House of
20 Representatives, the President Pro Tempore of the Senate, the
21 Chair of the House Ways and Means Education Committee, the
22 Chair of the Senate Finance and Taxation Education Committee,
23 the Chair of the House Education Policy Committee, and the
24 Chair of the Senate Education Policy Committee, a report on
25 the status of the implementation and adoption of the
26 mathematics education guidelines for postsecondary
27 institutions, the number of subject matter college level

1 semester hours earned, the status of partnerships between
2 educator preparation faculty and mathematics faculty, and the
3 percentage of passing scores on State Board of Education
4 approved assessments for candidates seeking educator
5 certification in mathematics at any grade level, as well as
6 the mathematics section on State Board of Education approved
7 assessments for those seeking certification in early childhood
8 or elementary education.

9 (d) Educator preparation programs approved by the
10 State Board of Education shall incorporate learning specific
11 to the condition known as dyscalculia, including early warning
12 signs, screening, and recommendations for interventions found
13 to be successful.

14 (e) As a requirement of initial licensure candidates
15 for early childhood or elementary mathematics certification,
16 prospective teachers shall receive a passing score, as
17 determined by the State Board of Education, on the appropriate
18 foundational mathematics assessment for the grade band
19 associated with each certificate.

20 (f) A comprehensive, independent review of the
21 requirements of this section shall be conducted every four
22 years by an external consultant at the direction of the State
23 Superintendent of Education. A report summarizing that review
24 shall be provided by the State Superintendent of Education to
25 the Director of the Office of Mathematics Improvement.

26 Section 14. (a) On or before June 30, 2024, the
27 State Superintendent of Education shall develop and submit to

1 the State Board of Education for approval, recommendations for
2 the creation of a K-5 mathematics coach endorsement for
3 teachers who hold a valid Alabama professional educator
4 certificate in early childhood education, elementary
5 education, or special education and have at least three years
6 of teaching experience.

7 (b) The K-5 mathematics coach endorsement shall be
8 offered only as a post baccalaureate program and shall not be
9 included within an initial educator preparation program.

10 (c) The K-5 mathematics coach endorsement
11 preparation program described in program planning forms,
12 catalogs, and syllabi shall require field experience and a
13 minimum of the following four courses:

14 (1) One course focused on grades K-2 content
15 knowledge and pedagogical content knowledge.

16 (2) One course focused on grades 3-5 content
17 knowledge and pedagogical content knowledge.

18 (3) One course focused on coaching principles.

19 (4) One course focused on literacy in mathematics
20 education to include analyzing student work for instructional
21 decisions.

22 (d) The coaching endorsement program shall prepare
23 candidates who demonstrate conceptual understanding and
24 procedural fluency regarding major concepts of mathematics
25 appropriate for grades K-5. Candidates shall satisfy all of
26 the following:

1 (1) Demonstrate coaching principles including:
2 Goals, principles, and approaches in the Alabama Coaching
3 Framework.

4 (2) Understand adult learning principles that
5 support collaboration with the ultimate goal of improved
6 student performance.

7 (3) Possess leadership experience.

8 (4) Understand the roles of school-based mathematics
9 coaches.

10 (5) Understand current research on the science of
11 learning.

12 (6) Be able to translate research findings into
13 effective instruction.

14 (7) Know what engages students in learning at
15 various stages of growth and development.

16 (8) Understand the developmental nature of
17 mathematics and the interconnections among mathematical
18 concepts.

19 (9) Demonstrate knowledge of the phases students
20 move through in developing fluency.

21 (10) Demonstrate knowledge of common errors and
22 misconceptions about the operations and how to help students.

23 (11) Demonstrate knowledge of the basic structures
24 and problem types of word problems for all operations and
25 proper sequencing to support student understanding of the
26 meaning of the operations.

1 (12) Demonstrate understanding of teaching
2 mathematics through problem solving.

3 (13) Demonstrate understanding of algebra as an
4 established content strand in grades K-5 that supports
5 algebraic thinking in middle school and high school.

6 (14) Demonstrate understanding of measurement as a
7 continuous quantity with numerical value and its importance to
8 the mathematically literate citizen.

9 (15) Understand the importance of spatial sense in
10 students and the connection to academic success in STEM
11 fields.

12 (16) Understand how to use a variety of mental
13 computation techniques.

14 (17) Model, explain, and develop a variety of
15 computational algorithms.

16 (18) Describe and represent mathematical
17 relationships.

18 (19) Practice coaching cycles.

19 (20) Demonstrate ability to work with adults in an
20 educational setting.

21 (21) Demonstrate ability to work with school
22 administrators in disaggregating data and developing
23 strategies.

24 (22) Demonstrate ability to effectively present
25 complex information to and engage with various stakeholders.

26 (e) The K-5 mathematics coach endorsement program
27 shall do all of the following:

1 (1) Prepare candidates to have knowledge of
2 historical developments in mathematics, including the
3 contributions of underrepresented groups and diverse cultures.

4 (2) Prepare candidates to use their knowledge of
5 student diversity to affirm and support full participation and
6 continued study of mathematics by all students. Student
7 diversity includes gender, ethnicity, socioeconomic
8 background, language, special needs, and mathematical learning
9 styles.

10 (3) Prepare candidates to use appropriate technology
11 to support the learning of mathematics.

12 (4) Prepare candidates to use appropriate formative
13 and summative assessment methods to assess student learning
14 and program effectiveness.

15 (5) Prepare candidates to use formative assessments
16 to monitor student learning and to adjust instructional
17 strategies and activities.

18 (6) Prepare candidates to use summative assessments
19 to determine student achievement and to evaluate the
20 mathematics program.

21 (7) Prepare candidates to know when and how to use
22 student groupings such as collaborative groups, cooperative
23 learning, and peer teaching.

24 (8) Prepare candidates to use instructional
25 strategies based on current research.

1 (9) Prepare candidates to work on an
2 interdisciplinary team and in an interdisciplinary
3 environment.

4 (10) Prepare candidates to participate actively in
5 the professional learning community of mathematics educators.

6 (11) Prepare candidates to analyze and organize data
7 for interpretation and application.

8 (f) Subject to legislative appropriation, the State
9 Superintendent of Education may establish an incentive program
10 to provide a minimum two thousand five hundred dollar (\$2,500)
11 annual stipend for any mathematics coach who has earned a K-5
12 mathematics coach endorsement.

13 Section 15. (a) Beginning October 1, 2022, the State
14 Superintendent of Education shall convene a working group to
15 create the Alabama Instructional Leadership Framework,
16 applicable to all K-5 administrators. The State Superintendent
17 shall utilize an external partner to facilitate this work.
18 Implementation of the Alabama Instructional Leadership
19 Framework shall begin August 1, 2023.

20 (b) The framework shall include, but not be limited
21 to, all of the following:

22 (1) Establishing a clear and shared vision for
23 teaching and learning, including all of the following:

24 a. Measuring success to include continually
25 monitoring the vision.

1 b. Providing feedback for school-based academic
2 coaches in meeting the vision and support for quality
3 professional learning.

4 c. Implementing a multi-tiered system of supports to
5 improve student achievement.

6 (2) Establishing norms for participation and
7 collaboration in coaching cycles and professional learning to
8 strengthen teacher practices.

9 (3) Identifying and supporting evidence-based
10 teaching practices for all content areas.

11 (4) Developing the ability to identify effective
12 instructional practices in early childhood and elementary
13 classrooms.

14 Section 16. (a) Beginning January 15, 2023, the
15 Executive Committee of the Alabama STEM Council shall employ
16 an external consultant to evaluate this act, the work of
17 mathematics coaches, and the implementation and outcomes. The
18 consultant shall be selected through an open request for
19 proposals process adopted by the executive committee. Each
20 proposal shall be reviewed by a panel of key stakeholders,
21 chosen by the executive committee, and shall be assessed using
22 a defined set of priority indicators. The executive committee
23 shall appoint a panel of 11 stakeholders to review each
24 proposal. The membership of each panel shall include all of
25 the following:

26 (1) The Director of the Alabama STEM Council.

1 (2) An elementary public school based mathematics
2 coach.

3 (3) Two public elementary mathematics educators.

4 (4) Two parents of students who are enrolled in and
5 attending a public K-5 school.

6 (5) The Director of AMSTI, or his or her designee.

7 (6) One AMSTI elementary mathematics specialist.

8 (7) One elementary public school principal.

9 (8) One instructor employed by a public two-year or
10 four-year institution of higher education, with experience
11 teaching elementary mathematics methods.

12 (9) Two additional members appointed by the
13 Executive Director of the Alabama STEM Council.

14 (b) The appointing authorities shall coordinate
15 their appointments to assure the panel membership is inclusive
16 and reflects the racial, gender, geographic, urban, rural, and
17 economic diversity of the state.

18 (c) The external evaluation consultant shall design
19 and enact a comprehensive evaluation plan to help with both
20 success and sustainability of the mathematics coaching
21 program. This work shall include, but not be limited to,
22 defining measures, developing instruments, using instruments
23 to collect data, analyzing data, the quarterly and annually
24 reporting of findings, and developing and implementing a
25 measurement sustainability plan. The findings shall be used to
26 determine adjustments to be made for continuous improvement to
27 both quality of implementation and assurance of desired

1 outcomes. The evaluation shall include a cost benefit return
2 on investment study.

3 (d) The external evaluation consultant shall submit
4 an annual report on or before January 30, and shall submit
5 quarterly reports no later than the last day of the month
6 following each quarter. Quarterly and annual reports shall be
7 submitted to the Governor, the Lieutenant Governor, the State
8 Board of Education, the Speaker of the House of
9 Representatives, the President Pro Tempore of the Senate, the
10 Chair of the House Ways and Means Education Committee, the
11 Chair of the House Education Policy Committee, the Chair of
12 the Senate Education Policy Committee, the Director of the
13 Office of Mathematics Improvement, and the Executive Committee
14 of the Alabama STEM Council, and shall conspicuously publish
15 the reports on the website of both the Alabama STEM Council
16 and the department.

17 (e) Continued funding dedicated to elementary
18 mathematics coaches shall be contingent on measurable
19 performance growth, as determined by the external evaluation
20 consultant.

21 (f) The State Superintendent of Education and the
22 Director of the Office of Mathematics Improvement shall comply
23 with all requests for data and information from the external
24 evaluation consultant and shall make every effort to assist
25 with any recommended improvements.

26 Section 17. (a) The State Superintendent of
27 Education, through the Office of Mathematics Improvement and

1 other sections of the department, shall provide technical
2 assistance to local education agencies in complying with this
3 section and Sections 1 to 16, inclusive.

4 (b) The State Board of Education may adopt rules as
5 necessary to implement and enforce this section and Sections 1
6 to 16, inclusive.

7 Section 18. Funds appropriated by the Legislature in
8 support of Sections 1 to 17, inclusive, shall be expended for
9 all of the following:

10 (1) The staff and operations of the Office of
11 Mathematics Improvement, including the director and regional
12 coordinators, local mathematics coaches, teachers in
13 residence, AMSTI regional mathematics specialists,
14 professional learning activities, and administrative
15 activities.

16 (2) Administration and analysis of mathematics
17 screening, formative, diagnostic, and summative assessments to
18 guide instruction in full support schools and limited support
19 schools.

20 (3) Professional development on foundational
21 mathematics content knowledge as recommended by the Elementary
22 Mathematics Task Force.

23 (4) Any additional staff for school improvement
24 teams for full support schools in state academic intervention.

25 (5) Additional staff for the Office of School
26 Improvement.

1 (6) External consultants to evaluate the work of
2 mathematics coaches' implementation and outcomes described in
3 Section 15.

4 Section 19. (a) The Legislature finds that the State
5 Board of Education, in the fall of 2013, voted to rescind the
6 Memorandum of Agreement that involved the State of Alabama in
7 adopting the Common Core State Standards, which ceded control
8 of Alabama's standards to entities other than the state and
9 local educational agencies.

10 (b) In order to codify the intent of the State Board
11 of Education, the State of Alabama hereby terminates all
12 plans, programs, activities, efforts, and expenditures
13 relative to the implementation of the educational initiative
14 commonly referred to as the Common Core State Standards.

15 (c) As part of the termination process, the
16 Legislature directs the State Superintendent of Education, the
17 State Board of Education, and any other public education
18 authority to terminate the flexibility waiver agreement with
19 the United States Department of Education pertaining to the
20 federal Every Students Succeeds Act, which includes the
21 adoption of the Common Core State Standards.

22 (d) The Legislature further prohibits the adoption
23 or implementation of any national standards or variations of
24 national standards from any source that cede control of
25 Alabama educational standards in any manner.

1 (e) The state shall retain sole control over the
2 development, establishment, and revision of K-12 course of
3 study standards.

4 (f) No education entity or any state official shall
5 join any consortium or any other organization when
6 participation in that consortium or organization would cede
7 any measure of control over any aspect of Alabama public
8 education to any such entity.

9 (g) Nothing in this section shall be construed to
10 affect, prohibit, or inhibit the use of any of the following
11 tools, standards, or certifications in the public K-12
12 schools, any college entrance examination, workforce skills
13 assessment or examination, advanced placement course, career
14 technical credential, national board certification, academic
15 language therapy certification, Praxis or other core academic
16 skills for educators test, armed service vocational aptitude
17 test, or International Baccalaureate standard.

18 Section 20. This act shall become effective
19 immediately following its passage and approval by the
20 Governor, or its otherwise becoming law.