- 1 SB171
- 2 218635-4
- 3 By Senators Orr and Melson
- 4 RFD: Education Policy
- 5 First Read: 02-FEB-22

1 SB171 2 3 4 ENROLLED, An Act, Relating to public education; to establish the 5 6 Alabama Numeracy Act and prohibit the use of the Common Core 7 State Standards in public K-12 schools; to implement steps to 8 improve mathematics proficiency of public school K-5 grade 9 students and ensure that those students are proficient in 10 mathematics at or above grade level by the end of fifth grade 11 by monitoring the progression of each student from one grade to another, in part, by his or her proficiency in mathematics. 12 BE IT ENACTED BY THE LEGISLATURE OF ALABAMA: 13 14 Section 1. Sections 1 to 19, inclusive, shall be 15 known and may be cited as the Alabama Numeracy Act. 16 Section 2. For the purposes of Sections 1 to 19, 17 inclusive, the following terms shall have the following 18 meanings: 19 (1) ALGEBRAIC REASONING. Recognizing and 20 generalizing about patterns and relationships; representing 21 patterns and relationships by analyzing structures of the 22 patterns; and using mathematical models (concrete, pictorial, 23 and abstract) to represent patterns.

24 (2) AMSTI. The Alabama Mathematics, Science, and
 25 Technology Initiative.

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

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

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

9

(6) DEPARTMENT. The State Department of Education.

10 (7) DYSCALCULIA. A term used to refer to a pattern 11 of learning difficulties characterized by problems processing 12 numerical information, learning arithmetic facts, performing 13 accurate or fluent calculations, difficulties with 14 mathematical reasoning, and difficulties with word reasoning 15 accuracy.

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

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

(10) FULL SUPPORT SCHOOL. The lowest performing
 elementary schools as measured by mathematics proficiency on
 the approved state summative assessment.

1	(11) K-5 SCHOOL. Any public school in the state
2	providing instruction in grades kindergarten through fifth, or
3	any configuration of those grades.
4	(12) LIMITED SUPPORT SCHOOLS. The second lowest
5	percent performing elementary schools as measured by
6	mathematics proficiency on the state approved summative
7	assessment.
8	(13) LOCAL BOARD OF EDUCATION. A county or city
9	board of education.
10	(14) LOCAL EDUCATION AGENCY. A county school system
11	or city school system operating public primary and secondary
12	schools.
13	(15) MENTAL COMPUTATION. The process of working on a
14	problem and obtaining the exact or approximate answers
15	mentally without reliance on external tools.
16	(16) MULTI-TIERED SYSTEM OF SUPPORT. A tiered system
17	of supports that integrates assessment and intervention within
18	a school-wide, multi-level prevention system to maximize
19	student achievement and reduce behavioral problems. A
20	multi-tiered system of support promotes systems alignment to
21	increase efficiency and effectiveness of resources.
22	(17) NUMBER SENSE. The ability to represent numbers
23	in multiple ways, numerical magnitude estimation, selecting
24	and using benchmarks, such as tens or hundreds, decomposing
25	and recomposing number, understanding the effects of

Page 3

1 operations on number, and performing mental calculation and 2 estimation.

3 (18) NUMERACY. The ability to understand and work4 with numbers.

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

8 (20) PROCEDURAL FLUENCY. The ability to apply 9 procedures accurately, efficiently, and flexibly; to transfer 10 procedures to different problems and contexts; to build or 11 modify procedures from other procedures; and to recognize when 12 one strategy or procedure is more appropriate to apply than 13 another.

14 (21) RESPONSE TO INTERVENTION. A process within the 15 system of a multi-tiered system of support framework. Response 16 to intervention is part of the data-based decision-making 17 process within progress monitoring where team members review 18 data to determine how students are responding to the 19 interventions in place.

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

23 (23) STEM. Science, technology, engineering, and24 mathematics.

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

Section 3. (a) Within 90 days following the 3 effective date of this act, the State Superintendent of 4 Education shall convene an Elementary Mathematics Task Force 5 6 to provide the State Superintendent of Education and the State Board of Education with vetted and approved recommendations 7 8 for high quality, evidence-based comprehensive mathematics curricula for core instruction and mathematics intervention 9 programs or curricula, or both; a state continuum of educator 10 11 development for approved professional learning focusing on 12 foundational mathematics content knowledge including, but not 13 limited to, improving number sense, spatial skills, algebraic 14 reasoning, and mental computations for all full support and 15 limited support schools; and an annual list of vetted and 16 approved assessment systems which are valid and reliable 17 mathematics screening, diagnostic, and formative assessment 18 systems for selection and use by local education agencies.

19 (b) The membership of the Elementary Mathematics20 Task Force shall include all of the following:

21

(1) The State Superintendent of Education.

(2) The Director of the Office of MathematicsImprovement.

(3) Two actively serving public K-2 teachers, with
 experience in implementing evidence-based mathematics teaching

practices, appointed by the Executive Director of the Alabama
 Education Association.

3 (4) Two actively serving public 3-5 teachers, with
4 experience in implementing evidence-based mathematics teaching
5 practices, appointed by the Alabama Council of Teachers of
6 Mathematics.

7 (5) One actively serving public K-5 special
8 education teacher, with experience implementing evidence-based
9 mathematics teaching practices, appointed by the State
10 Superintendent of Education.

(6) One actively serving elementary AMSTI mathematics specialist, with experience supporting school-based mathematics coaches, appointed by the Alabama STEM Council.

(7) One actively serving elementary school-based
mathematics coach, with experience in facilitating
professional development, appointed by the Alabama Council of
Teachers of Mathematics.

19 (8) Two actively serving public elementary school
20 principals, with experience supporting mathematics coaching,
21 appointed by the Council for Leaders in Alabama Schools.

(9) One actively serving instructor employed by a
public institution of higher education, with experience
teaching elementary mathematics methods, appointed by the
Alabama Commission on Higher Education.

(10) One actively serving local superintendent of

coaches, appointed by the School Superintendents of Alabama.

SB171

- (10) One actively serving local superintendent of
 education, with experience supporting schools with mathematics
- 3

4

5

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

6 (12) One actively serving AMSTI Director or
7 assistant director, with experience teaching and supporting
8 grades K-5 mathematics, appointed by the State Superintendent
9 of Education.

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

13 (14) Three additional members, appointed by the14 Governor.

(c) Members appointed to the Elementary Mathematics 15 16 Task Force pursuant to subdivisions (3) through (8) of 17 subsection (b) shall serve an initial term of one year and may be reappointed to serve one additional two-year term. Members 18 appointed to the Elementary Mathematics Task Force pursuant to 19 20 subdivisions (9) through (14) of subsection (b) shall serve an 21 initial term of two years and may be reappointed to serve one 22 additional two-year term. Thereafter, each member of the 23 Elementary Mathematics Task Force shall be appointed to serve 24 a two-year term and may be reappointed to serve one additional two-year term. All appointing authorities shall coordinate 25

Page 7

their appointments to ensure the Elementary Mathematics Task Force membership is inclusive and reflects the racial, gender, geographic, urban, rural, and economic diversity of the state. The appointing authorities shall fill vacancies by appointment for the unexpired terms according to the process outlined in this section.

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

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

(2) The Elementary Mathematics Task Force shall meet
at least four times a year. The Elementary Mathematics Task
Force shall set meeting dates and times, set agendas, vote,
and develop recommendations for the State Board of Education
in collaboration with the department, through the Office of
Mathematics Improvement. A majority of the members of the
Elementary Mathematics Task Force shall constitute

1	a quorum for the transaction of business. Should a quorum not
2	be present on the day appointed for any meeting, those present
3	may adjourn from day to day until a quorum is established.
4	(e) Each approved assessment system for grades K-5
5	shall measure, at a minimum, all of the following:
6	(1) Number sequence.
7	(2) One-to-one correspondence.
8	(3) Cardinality.
9	(4) Oral and written names for numbers based on
10	grade level standards.
11	(5) Subitizing.
12	(6) Number relationships.
13	(7) Addition, subtraction, multiplication, and
14	division in word problems with a variety of problem types and
15	structures based on grade level standards.
16	(8) Connecting addition, subtraction,
17	multiplication, and division to place value based on grade
18	level standards.
19	(9) Computational fluency with whole numbers,
20	fractions, and decimals based on grade level standards.
21	(10) Spatial reasoning based on grade level
22	standards.
23	(f) In determining which assessment systems to
24	recommend for use by local education agencies, the Elementary
25	Mathematics Task Force, in collaboration with the department,

through the Office of Mathematics Improvement, at a minimum,
 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 later than 90 days after the effective date of this act. The 15 16 State Superintendent of Education shall appoint a Director of 17 the Office of Mathematics Improvement whose exclusive focus is K-5 mathematics. The director shall have experience in 18 administrative duties, as an elementary mathematics specialist 19 20 or coach, and in teaching mathematics in a public elementary 21 school. In addition to necessary state level staff, each AMSTI 22 region of the state shall have at least one Office of 23 Mathematics Improvement regional coordinator, or more based on 24 the needs of the full support and limited support schools in the region, as determined by the Director of the Office of 25

Mathematics Improvement. Each regional coordinator shall have experience in training, supporting, coaching, and teaching K-5 mathematics in elementary public schools focused on mathematics data analysis and mathematics improvement. No employee of the Office of Mathematics Improvement shall be subject to the state Merit System.

7 (b) The Director of the Office of Mathematics
8 Improvement, in collaboration with the Elementary Mathematics
9 Task Force, shall do all of the following:

10 (1) Determine the scope and pace of scaling
11 mathematics coaches as provided in Section 7.

12 (2) Monitor the implementation of intensive
13 professional development on foundational mathematics content
14 knowledge, as recommended by the Elementary Mathematics Task
15 Force, for all full support and limited support schools.

16 (3) Monitor the implementation of screener
 17 assessments, diagnostic assessments, and formative assessments
 18 for grades K-5 to identify students in need of support for key
 19 numeracy concepts. Implementation shall begin with the
 2023-2024 school year.

(4) Recommend training and support for educators for
the effective implementation and interpretation of diagnostic
tools. The diagnostic tool shall be used with students who
have been identified as struggling in mathematics based on

screeners, diagnostic assessments, benchmark assessments,
 teacher observation, or any combination of the forgoing.

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

6 (6) Commit necessary resources to understanding the 7 needs of students struggling with number sense or dyscalculia, 8 or both, before implementing instructional practices or 9 assessments that could adversely affect student learning.

10 (7) Monitor AMSTI mathematics specialist support in11 all full support and limited support schools.

12 (8) Monitor the implementation and progress of the
13 Alabama Summer Mathematics Achievement Program in full support
14 schools.

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

(10) Participate in the development of the Alabama
Instructional Leadership framework, the State Academic
Intervention framework, and the Turnaround Leadership Academy.

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

1 (d) Office of Mathematics Improvement regional 2 coordinators, with the oversight of the director, shall perform all of the following duties in full support and 3 limited support schools: 4 5 (1) Support and monitor the implementation of 6 comprehensive mathematics curricula for core instruction and 7 intervention programs or curricula, or both, approved by the 8 Elementary Mathematics Task Force. 9 (2) Support and monitor the implementation of a 10 multi-tiered system of support, including response to 11 intervention to monitor progress of struggling students, 12 continually evaluate the effectiveness of instruction, and make more informed instructional decisions. 13 14 (3) Support and monitor the implementation of the 15 intensive professional development series on foundational 16 mathematics content knowledge. 17 (4) Support the Director of the Office of 18 Mathematics Improvement in monitoring the implementation of 19 approved formative assessments, screening assessments, and 20 diagnostic assessments recommended by the Elementary 21 Mathematics Task Force.

(5) Monitor and evaluate data collected from AMSTI
 and local education agencies to ensure coaching aligns with
 school needs and make recommendations for improvement to the

1 mathematics coaches as needed to increase student achievement, 2 collaboration, and support.

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

6 Section 5. (a) Each K-5 teacher who is providing 7 instruction in mathematics, with the full support of his or 8 her principal, shall do all of the following:

9 (1) Dedicate an average minimum of 60 minutes per 10 day for Tier 1 mathematics instruction, for a minimum of 164 11 instructional hours per year.

12 (2) Use approved comprehensive mathematics curricula
13 for core instruction recommended by the Elementary Mathematics
14 Task Force, in addition to high quality print and online
15 resources to carefully plan units and lessons based on the
16 grade-level mathematics content standards.

17 (3) Build fluency with procedures on a foundation of
 18 conceptual understanding, strategic reasoning, and problem
 19 solving over time.

20 (4) Provide students access to tools, including any
21 available technology, that support mathematical thinking.

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

1 (6) Consistently implement the evidence-based 2 mathematics teaching practices as recommended by the Elementary Mathematics Task Force. 3 (7) Gather evidence of student understanding to 4 5 inform the planning of next instructional steps. 6 (8) Provide students with descriptive and timely feedback on assessments to include strengths, weaknesses, and 7 8 next steps for progress toward learning targets. (b) An elementary school teacher should not engage 9 10 in any practice that minimizes sense making and understanding 11 of mathematics concepts. Section 6. (a) (1) A kindergarten student or incoming 12 13 grades 1-5 student identified with a mathematics deficiency, 14 or who demonstrates the signs of dyscalculia, shall be 15 provided intensive mathematics interventions recommended by 16 the Elementary Mathematics Task Force to address his or her 17 specific mathematics deficiency. Intensive interventions should be a part of the multi-tiered system of support of a 18 school. A K-5 student who exhibits a mathematics deficiency 19 20 based on an approved screener assessment, diagnostic 21 assessment, benchmark assessment, or classroom formative 22 assessment shall receive immediate mathematics intervention. 23

(2) The mathematics teacher of the student receiving
 mathematics intervention shall prepare reports that coincide
 with grading periods and a comprehensive end of year report

1	detailing any mathematics intervention provided. Reports shall
2	be provided to the parent or legal guardian of the student,
3	and his or her mathematics teacher for the immediately
4	succeeding school year, and shall include all of the
5	following:
6	a. The name of the student.
7	b. The name of the teacher providing the
8	intervention.
9	c. Mathematics deficiencies identified from a
10	screener, diagnostic, or formative assessment, or any of them.
11	d. Student growth.
12	e. Mathematics strengths of the student.
13	(3) The information provided to the parent or legal
14	guardian of a student, pursuant to subdivision (2), details
15	the strengths, deficiencies, and progress of the student. A
16	report from a screener, diagnostic, or formative assessment
17	that includes all the information listed in subdivision (2)
18	may be provided to the parent or legal guardian in lieu of a
19	separate report.
20	(b) Each local education agency shall provide
21	mathematics intervention services for grades K-5 students
22	identified with mathematics deficiencies. Those services shall
23	include, but not be limited to, any of the following:

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

(2) Effective instructional strategies to accelerate 4 5 student progress provided by a highly qualified teacher who 6 has training and experience in the implementation of teaching mathematics through problem solving; providing an environment 7 8 for students to make sense of cognitively demanding tasks; providing justifications for strategies and solutions; making 9 connections with the mathematics; and receiving feedback about 10 11 mathematics ideas.

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

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

b. Providing daily targeted small group mathematicsintervention based on student needs.

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

1 d. Frequently monitoring the progress of the mathematics skills of each student throughout the school year 2 and adjusting instruction according to student need. 3 e. Incorporating material from a previous grade to 4 link understanding to grade level curriculum. 5 6 f. Incorporating a concrete, semi-concrete, abstract 7 approach. 8 g. Incorporating explicit systematic strategy instruction, including summarizing key points and reviewing 9 10 vocabulary prior to the lesson. 11 h. Utilizing mathematics strategies or programs, 12 grounded in the science of learning, that accelerate student mathematics achievement. 13 14 i. Attending to conceptual understanding as well as 15 procedural fluency. 16 j. Providing a home based mathematics plan, 17 including participation in family training workshops or

18 regular family-guided home mathematics activities.

19

(c) Beginning with the 2023-2024 school year:

(1) Kindergarten students shall be assessed by
November using an early numeracy screener recommended by the
Elementary Mathematics Task Force to identify those students
in need of support for key numeracy concepts. A kindergarten
student identified by the screener as having a mathematics
deficiency shall be assessed using the diagnostic assessment

1 to identify student misconceptions and gaps in mathematical 2 knowledge or skills.

(2) Incoming first and second grade students shall 3 be assessed using an early numeracy screener recommended by 4 the Elementary Mathematics Task Force a minimum of two times a 5 6 year to identify those students in need of support for key numeracy concepts. A first or second grade student identified 7 8 by the screener as having a mathematics deficiency shall be 9 assessed using the diagnostic assessment to identify student 10 misconceptions and gaps in mathematical knowledge or skills.

11 (3) Incoming fourth and fifth grade students shall be assessed using a fractional reasoning screener approved by 12 13 the Elementary Mathematics Task Force a minimum of two times a 14 year to identify those students in need of support for 15 fractional reasoning. A fourth or fifth grade student 16 identified by the screener as having a mathematics deficiency 17 shall be assessed using the diagnostic assessment to identify student misconceptions and gaps in mathematical knowledge or 18 19 skills.

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

1	(d) The Elementary Mathematics Task Force shall
2	recommend to the Office of Mathematics Improvement a guide for
3	developmental benchmark formative assessments to be used for
4	determining appropriate mathematics progress for K-5
5	mathematics progression. The benchmarks shall include, but not
6	be limited to, the following grade level progressions:
7	(1) The kindergarten level shall include all of the
8	following:
9	a. Number sequence.
10	b. One-to-one correspondence.
11	c. Cardinality.
12	d. Oral and written names for numbers based on grade
13	level standards.
14	e. Subitizing.
15	f. Number relationships.
16	g. Computational fluency with whole numbers based on
17	grade level standards.
18	h. Addition and subtraction in word problems with a
19	variety of problem types and structures based on grade level
20	standards.
21	i. Spatial reasoning based on grade level standards.
22	(2) The first and second grade level shall include
23	all of the following:
24	a. Counting and recognizing whole numbers.
25	b. Comparing and ordering numbers.

1 c. Composing and decomposing numbers. d. Operations with whole numbers. 2 (3) Incoming third grade level shall include all of 3 the following: 4 a. Operations of addition and subtraction. 5 6 b. Properties of operations. c. Counting and recognizing numbers to 1,000. 7 d. Understanding models for addition and subtraction 8 within 1,000. 9 e. Comparing and ordering numbers up to 1,000. 10 11 f. Composing and decomposing numbers up to 1,000. 12 q. Solving one-step and two-step word problems involving addition and subtraction within 100. 13 14 h. Using a variety of strategies and algorithms 15 based on place value. 16 (4) Incoming fourth grade level shall include all of 17 the following: a. Representing unit fractions with area and length 18 19 models. 20 b. Representing equivalent fractions using a variety 21 of objects and pictorial models. 22 c. Understanding multiplication and division and strategies for multiplication and division within 100. 23

1	d. Understanding the meanings of multiplication and
2	division of whole numbers involving equal-sized groups,
3	arrays, and measurement quantities.
4	e. Solving one-step and two-step word problems
5	involving addition and subtraction within 1,000 using a
6	variety of strategies and algorithms based on place value.
7	f. Generating and solving problem situations for a
8	given mathematical number sentence involving addition and
9	subtraction of whole numbers using a variety of strategies and
10	algorithms based on place value.
11	(5) Incoming fifth grade level shall include all of
12	the following:
13	a. Comparing and ordering whole numbers up to
14	1,000,000.
15	b. Comparing and ordering fractions and decimals to
16	hundredths.
17	c. Using place value understanding and properties of
18	operations to perform multi-digit arithmetic with whole
19	numbers.
20	d. Illustrating and explaining the product of two
21	factors using equations, rectangular arrays, and area models.
22	e. Adding and subtracting fractions and mixed
23	numbers with like denominators using fraction equivalence and
24	properties of operations.

f. Understanding the relationship between addition
 and subtraction.

3

g. Multiplying a whole number and a fraction.

4 Section 7. (a) (1) Subject to the appropriations of 5 the Legislature, every public K-5 school with a student 6 population of less than 800 K-5 students shall be allocated 7 one mathematics coach and every public K-5 school with a 8 student population of 800, or more, K-5 students shall be 9 allocated two mathematics coaches.

10 (2) If a K-5 school is allocated two mathematics 11 coaches, the local board of education shall attempt to hire 12 and employ those mathematics coaches simultaneously to ensure 13 the effectiveness of the mathematics coaches.

14 (3) The Director of the Office of Mathematics 15 Improvement shall determine the scope and pace of scaling 16 mathematics coaches, with the goal of allocating all 17 mathematics coaches before the 2027-2028 school year. In 18 determining the allocation of mathematics coaches, full 19 support schools and limited support schools shall be given 20 priority.

(b) A mathematics coach shall be employed by the
local education agency with funds appropriated by the
Legislature to support Sections 1 to 19, inclusive.
Mathematics coaches shall be employed as a 10-month employee.
The extra days beyond the nine-months shall be used to train

1	teachers, develop units of instruction and materials to
2	support instruction, as determined by school data, and receive
3	professional learning. Mathematics coaches shall meet all of
4	the following qualifications:
5	(1) Hold a valid Alabama professional educator
6	certificate in early childhood education, elementary
7	education, or special education.
8	(2) Have a minimum of five years of experience as an
9	early childhood, elementary, or special education teacher.
10	(3) Demonstrate expertise, as attested by a current
11	or former employing county or city superintendent of
12	education, in mathematics instruction and intervention and
13	early numeracy interventions, including dyscalculia
14	interventions.
15	(4) Hold a master's degree or have completed
16	professional development recommended by the Elementary
17	Mathematics Task Force, or both.
18	(c) The duties and responsibilities of a mathematics
19	coach employed pursuant to Sections 1 to 19, inclusive, shall
20	include all the following:
21	(1) Supporting the improvement of instruction with
22	an emphasis on Tier 1 instruction to ensure students do not
23	fall behind.
24	(2) Collaborating with the school principal and
25	faculty to establish and implement a strategic plan for

coaching and mathematics instruction to improve student
 achievement in mathematics.

3 (3) Facilitating schoolwide mathematics professional
4 learning, including job-embedded assistance using coaching
5 strategies, including joint preplanning, modeling lessons,
6 co-teaching lessons, targeted observation to collect data, and
7 debriefing.

8 (4) Modeling evidence-based mathematics
9 instructional and intervention strategies for teachers.

10

(5) Continuously mentoring and coaching teachers.

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

15 (7) Monitoring the progress of K-5 students in 16 mathematics through benchmark formative assessments at least 17 three times per year and making recommendations for modifying 18 instruction based on the individual needs of students and 19 trends in student data.

20 (8) Focusing solely as a mathematics coach for21 schools with elementary grade students.

(9) Collaborating with teachers and grade-level
teams of teachers to foster the use of appropriate
instructional materials, including concrete materials,

1 necessary to ensure that students understand mathematical 2 concepts.

3 (10) Collaborating with grade-level teams to develop 4 rigorous tasks, lessons, and assessments aligned with 5 grade-level mathematics content standards; to facilitate the 6 analysis of student work samples and assessment data; and to 7 work in partnership with teachers to provide real-time 8 feedback and make next-step instructional decisions based on 9 the student evidence.

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

14 (12) Assisting teachers in administering early 15 numeracy screeners or diagnostic assessments, or both, in 16 grades K-2. The assistance of a mathematics coach may not 17 exceed two hours per week.

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

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

1 (15) Actively and cooperatively participating in any 2 Office of Mathematics Improvement regional coordinator and 3 AMSTI regional mathematics specialist visits and professional 4 learning to meet agreed upon personal outcomes and all school, 5 district, and state established mathematics goals.

6 (16) Engaging in ongoing learning opportunities to 7 grow in knowledge, skills, and expertise in mathematics.

8 (17) Facilitating the use of assessment data in all 9 tiers of mathematics instruction to assist in making decisions 10 that will move students to higher levels of performance in 11 mathematics.

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

18 (19) Recording job duties and time spent with19 teachers on a state-specified electronic platform.

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

(d) A mathematics coach shall prioritize coaching in
mathematics and may not perform administrative duties, serve
in administrative roles, serve as a substitute teacher, serve

1 as a testing coordinator, serve as an interventionist, or 2 perform other school duties not focused on coaching or the 3 mathematics improvement of students during the instructional 4 day.

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 effectiveness of mathematics coaches employed pursuant to 15 16 Sections 1 to 19, 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.

(g) The State Superintendent of Education
shall submit a report to the Governor, the Lieutenant
Governor, the State Board of Education, the Speaker of the
House of Representatives, the President Pro Tempore of the
Senate, the Chair of the House Ways and Means Education

1 Committee, the Chair of the Senate Finance and Taxation 2 Education Committee, the Chair of the House Education Policy Committee, the Chair of the Senate Education Policy Committee, 3 the Minority Leader of the House of Representatives, and the 4 5 Minority Leader of the Senate, and shall conspicuously publish 6 the summary on the website of the department, no later than December 31, annually, on the status of teacher professional 7 8 learning and student growth and proficiency based on formative 9 assessments recommended by the Elementary Mathematics Task 10 Force and the state approved summative assessment.

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

17 (b) Initially, full support schools shall consist of the lowest five percent performing public elementary K-5 18 schools, as measured by student mathematics proficiency on the 19 state approved summative assessment, and any K-2 school that 20 21 is in the feeder pattern of a grades 3-5 full support school. 22 Thereafter, the number of full support schools shall be 23 increased by an additional one percent every two years until 24 the lowest 10 percent performing public elementary schools are included. Beginning August 1, 2023, the department, through 25

1 the Office of Mathematics Improvement, shall require full
2 support schools to do all of the following:

3 (1) Require all leadership and staff to actively and
4 collaboratively participate in any support provided by the
5 Office of Mathematics Improvement or the Office of School
6 Improvement.

7 (2) Require principals and assistant principals to
8 engage in and implement professional learning as determined by
9 the Office of Mathematics Improvement and the Office of School
10 Improvement.

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

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

17 (5) Require all teachers involved in mathematics
18 instruction to engage in and implement professional learning
19 as determined by the Office of Mathematics Improvement and the
20 Office of School Improvement.

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

(7) Implement a multi-tiered system of support,
 including response to intervention, to monitor the progress of

struggling students, continually evaluate the effectiveness of
 instruction, and improve instructional decisions.

3 (8) Support and respond to any request of the Office
4 of Mathematics Improvement or the Office of School
5 Improvement.

6 (c) Initially, limited support schools shall consist of the lowest six to 25 percent performing public elementary 7 8 schools as measured by student mathematics proficiency on the 9 state approved summative assessment. Thereafter, the number of 10 limited support schools shall be decreased by an additional 11 one percent every two years until the lowest 11 to 25 percent 12 performing public elementary schools are included. Beginning 13 August 1, 2023, the department, through the Office of 14 Mathematics Improvement, shall require limited support schools to do all of the following: 15

16 (1) Use approved comprehensive mathematics curricula
17 for core instruction as recommended by the Elementary
18 Mathematics Task Force.

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

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

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

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

8 (6) Support and respond to any request of the Office9 of Mathematics Improvement.

10 (d) Beginning in the 2023-2024 school year, annually 11 on or before September 30, each local education agency shall 12 report in writing to the department all of the following 13 information relating to the previous school year:

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

18 (2) By grade, the number and percentage of students
19 screened for dyscalculia characteristics, the number and
20 percentage of students identified as demonstrating the
21 characteristics of dyscalculia and receiving dyscalculia
22 specific intervention, and the name of the dyscalculia
23 specific intervention being provided.

(3) By grade, the number and percentage of all K-5
 students performing on grade level or above grade level; which

is defined as scoring level 3 or level 4 on the Alabama
 Comprehensive Assessment Program, or any derivation thereof.

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

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

12 (6) By grade, the number and percentage of eligible
13 students in grades four and five who attended the Alabama
14 Summer Mathematics Achievement Program in full support
15 schools, that included intensive mathematics instruction.

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

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

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

Page 33

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

(e) The State Superintendent of Education shall 4 5 establish a uniform format for local education agencies to use 6 in reporting the information required by subsection (d). The format shall be developed with input from local boards of 7 8 education and the Elementary Mathematics Task Force and shall be provided to each local superintendent of education not 9 10 later than 90 days before the annual due date, as established 11 by the State Superintendent of Education. On or before November 1, annually, the State Superintendent of Education 12 13 shall compile the information received from the local 14 education agencies into a state level summary and submit the 15 summary to the Governor, the Lieutenant Governor, the State 16 Board of Education, the President Pro Tempore of the Senate, 17 the Speaker of the House of Representatives, and the Director of the Office of Mathematics Improvement, and shall 18 conspicuously publish the summary on the website of the 19 20 department.

(f) The State Superintendent of Education shall also
report mathematics growth and proficiency targets for all
students and all subgroups, as based on the state Every
Student Succeeds Act plan, or its successor, to the State
Board of Education, the Elementary Mathematics Task Force, and

the Director of the Office of Mathematics Improvement by
 January 15, annually.

Section 9. (a) Commencing with the summer after the 2022-2023 school year, each full support school shall provide the Alabama Mathematics Summer Achievement Program to all students in grades four and five identified with a mathematics deficiency.

8 (b) The Alabama Mathematics Summer Achievement 9 Program for grades four and five shall satisfy all of the 10 following:

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

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

19 (3) Incorporate an Elementary Mathematics Task Force
20 recommended mathematics assessment system, that shall be
21 administered both at the beginning and end of each Alabama
22 Summer Mathematics Achievement Program, to measure student
23 progress.

24 (4) Coordinate with existing summer programs
 25 conducted by the local education agency or in partnership with

community-based summer programs for students similarly
situated.

3 (c) Any public school that provides an Alabama
4 Summer Achievement Program for students in grades K-3, as
5 required by the Alabama Literacy Act, Chapter 6G of Title 16,
6 Code of Alabama 1975, shall include a portion of mathematics
7 instruction during the program based on student need.

8 (d) Each local education agency shall provide a 9 summer math camp for students in grades K-5 who are identified 10 with a mathematics deficiency. For students in grade K-3, the 11 summer mathematics camp shall be embedded in the summer 12 reading camp, as required by the Alabama Literacy Act, Chapter 13 6G of Title 16, Code of Alabama 1975. For grades 4 and 5, the 14 summer mathematics camp shall include from 40 to 70 hours of 15 time spent in mathematics problem solving, based on the 16 severity of student need.

17 Section 10. Beginning August 1, 2022, the State 18 Superintendent of Education shall provide training to full 19 support and limited support schools relating to the Alabama Multi-Tiered System of Support framework. The framework shall 20 21 outline the evidence-based best practices of multi-tiered 22 systems of support, which include response to intervention. 23 Section 11. The department, through the Office of 24 School Improvement, shall do all of the following:

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

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

7 (3) Participate in professional learning relating to
8 reliable forms of evidence of teachers implementing
9 evidence-based mathematics teaching practices.

10 (4) Ensure that all Office of School Improvement 11 staff are trained and prepared to train local education agency 12 leaders, school leaders, and educators in implementing a high 13 quality multi-tiered system of support, including response to 14 intervention.

15 Section 12. (a) Beginning January 1, 2024, the 16 department, through the Office of School Improvement, the 17 Office of Mathematics Improvement, any other sections within the department, and regional and national experts in school 18 19 turnaround, shall develop a State Academic Intervention framework, which shall define a coherent, sustained, 20 21 evidence-based system of intensive school turnaround 22 assistance and support with the goal of improving student 23 achievement in schools persistently in full support status in 24 mathematics, reading, or both. This shall include clear 25 metrics for entering and exiting state academic intervention.

1 The Elementary Math Task Force and Literacy Task Force shall 2 review and provide feedback on the proposed State Academic 3 Intervention framework. The State Board of Education shall 4 grant the final approval.

5 (b) Beginning August 1, 2026, any full support 6 school, as defined in this act or the Alabama Literacy Act, 7 that has not attained specified levels of academic progress in 8 mathematics, reading, or both, as established in the State 9 Academic Intervention framework, shall enter into state 10 academic intervention.

(c) A full support school shall have three years of
 support before qualifying for state academic intervention.

(d) The Director of the Office of Mathematics
Improvement and the Office of School Improvement shall develop
a policy of state academic intervention for any school
identified, for a minimum of three non-consecutive years, as a
full support school for mathematics, reading, or both.

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

1 (f) The department, through the Office of School 2 Improvement, the Office of Mathematics Improvement, and any 3 other sections within the department shall clearly define the 4 powers and duties of each school improvement team.

5 (g) A school improvement team shall do all of the 6 following:

(1) Conduct a comprehensive on-site evaluation to 7 8 determine any causes for low student performance and lack of progress of the school. The evaluation shall include, but not 9 10 be limited to, consultations with the local superintendent of 11 education, the local board of education, the school principal, parents, other school personnel, and any other individual who 12 13 possesses pertinent information and knowledge about the 14 school.

(2) Assist in the development of an intensive school 15 16 turnaround plan focused on student achievement, which may 17 include areas beyond mathematics or reading, to facilitate the imperative of overall school improvement. An intensive school 18 19 turnaround plan shall include, but not be limited to, all of 20 the following: Recommendations relating to the reallocation of 21 resources and technical assistance, including from external 22 partners; changes in school procedures or operations; 23 professional learning focused on continuous improvement and 24 student achievement for instructional and administrative 25 staff; intervention for individual administrators or teachers;

1 instructional strategies based on evidence based research; 2 waivers from state laws or rules; adoption of policies and practices to ensure all groups of students satisfy the 3 proficiency level established by the state; extended 4 5 instructional time for low-performing students; strategies for 6 family engagement; incorporation of a teacher mentoring program; and other actions considered appropriate by the 7 8 school improvement team.

9 (3) Subject to final approval of the intensive 10 school turnaround plan by the State Superintendent of 11 Education, present the intensive school turnaround plan to the 12 local board of education and the public.

13 (4) Monitor the progress of the school in
14 implementing the intensive school turnaround plan using
15 formative and summative assessment data.

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

(1) Mandate the complete reconstitution of the
school, removing all personnel, appointing a new principal,
and hiring new staff. Existing staff may apply for employment
at the newly reconstituted school, and shall be on paid
administrative leave status until the staff for the

reconstituted school has been employed by the new principal and approved by the local board of education. Placement on paid administrative leave status under this subsection does not constitute a reportable action under state law.

5 (2) Contract with an external receiver approved by 6 the State Superintendent of Education. An external receiver may be a two-year or four-year public institution of higher 7 education, a nonprofit entity, a charter management 8 organization, or an individual with a demonstrated record of 9 10 success in improving low-performing schools. The external 11 receiver shall have full managerial and operational control 12 over the school. An external receiver shall report directly to 13 the local superintendent of education. At the request of the 14 external receiver, the State Superintendent of Education may 15 overturn any decision made by the local superintendent of 16 education.

17 (3) Pursue application for public charter school
18 status pursuant to Chapter 6F, Title 16, Code of Alabama 1975.

(i) Nothing in this section shall prohibit the State
Superintendent of Education, through the Office of Mathematics
Improvement, the Office of School Improvement, or any other
section within the department from engaging in strategic
planning and making recommendations to the local
superintendent of education or local board of education
regarding the operation of low-performing schools including,

but not limited to, structural, governance model, grade configuration, curriculum and instructional materials, and personnel.

(j) For any school under state academic 4 5 intervention, on or before December 31, annually, the Office 6 of School Improvement, the Office of Mathematics Improvement, and other relevant offices within the department shall report 7 8 to the Governor, the Lieutenant Governor, the State Board of 9 Education, the Speaker of the House of Representatives, the 10 President Pro Tempore of the Senate, the Chair of the House 11 Ways and Means Education Committee, the Chair of the Senate 12 Finance and Taxation Education Committee, the Chair of the 13 House Education Policy Committee, the Chair of the Senate 14 Education Policy Committee, the Minority Leader of the House 15 of Representatives, and the Minority Leader of the Senate on 16 the progress of each full support school under state academic 17 intervention.

Section 13. (a) Beginning August 1, 2022, the State 18 19 Superintendent of Education, through the Office of Mathematics Improvement, shall convene and oversee a Postsecondary 20 21 Mathematics Task Force to develop guidelines for institutions 22 of postsecondary education to train early childhood and 23 elementary mathematics teachers based on current research. The 24 quidelines shall include course structure and content based on 25 the recommendations of the National Council of Teachers of

1 Mathematics, the Conference Board of the Mathematics Sciences, 2 the United States Department of Education, and the Mathematics 3 Sciences Research Institute. Guidelines shall go into effect 4 on August 1, 2024. The membership of the Postsecondary 5 Mathematics Task Force shall include all of the following:

6 (1) The Director of the Office of Mathematics 7 Improvement.

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

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

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

19 (5) One local superintendent of education, appointed20 by the School Superintendents of Alabama.

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

1	(7) One K-5 public school special education teacher,				
2	with experience teaching elementary mathematics, appointed by				
3	the State Superintendent of Education.				
4	(8) One public school principal employed at a school				
5	containing grades K-5, with experience with teacher interns,				
6	appointed by the Council for Leaders in Alabama Schools.				
7	(9) Two K-5 school-based mathematics coaches,				
8	employed at a public school containing grades K-5, appointed				
9	by the Executive Director of the Alabama STEM Council.				
10	(10) Two K-5 mathematics specialists, employed at a				
11	school containing grades K-5, appointed by the State				
12	Superintendent of Education.				
13	(11) Three additional members, appointed by the				
14	Governor.				
15	(b) The appointing authorities shall coordinate				
16	their appointments to ensure the Postsecondary Mathematics				
17	Task Force membership is inclusive and reflects the racial,				
18	gender, geographic, urban, rural, and economic diversity of				
19	the state.				
20	(c) No later than December 31, annually, the Alabama				
21	Commission on Higher Education shall submit to the Governor,				
22	the Lieutenant Governor, the Speaker of the House of				
23	Representatives, the President Pro Tempore of the Senate, the				
24	Chair of the House Ways and Means Education Committee, the				
25	Chair of the Senate Finance and Taxation Education Committee,				

SB171

1 the Chair of the House Education Policy Committee, the Chair of the Senate Education Policy Committee, the Minority Leader 2 of the House of Representatives, and the Minority Leader of 3 the Senate a report on the status of the implementation and 4 5 adoption of the mathematics education guidelines for 6 postsecondary institutions, the number of subject matter 7 college level semester hours earned, the status of 8 partnerships between educator preparation faculty and 9 mathematics faculty, and the percentage of passing scores on 10 State Board of Education approved assessments for candidates 11 seeking educator certification in mathematics at any grade 12 level, as well as the mathematics section on State Board of 13 Education approved assessments for those seeking certification 14 in early childhood or elementary education. The report shall 15 be conspicuously published on the website of the department.

16 (d) Educator preparation programs approved by the 17 State Board of Education shall incorporate learning specific 18 to the condition known as dyscalculia, including early warning 19 signs, screening, and recommendations for interventions found 20 to be successful.

(e) As a requirement of initial licensure candidates
for early childhood or elementary mathematics certification,
prospective teachers shall receive a passing score, as
determined by the State Board of Education, on the appropriate

1 foundational mathematics assessment for the grade band
2 associated with each certificate.

(f) A comprehensive, independent review of the 3 requirements of this section shall be conducted every four 4 5 years by an external consultant at the direction of the State 6 Superintendent of Education. A report summarizing that review shall be provided by the State Superintendent of Education to 7 the Director of the Office of Mathematics Improvement. A 8 summary of the report shall be conspicuously published on the 9 10 website of the department.

11 Section 14. (a) On or before June 30, 2024, the State Superintendent of Education shall develop and submit to 12 13 the State Board of Education for approval, recommendations for 14 the creation of a K-5 mathematics coach endorsement for 15 teachers who hold a valid Alabama professional educator 16 certificate in early childhood education, elementary education, or special education and have at least three years 17 18 of teaching experience.

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

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

1 (1) One course focused on grades K-2 content 2 knowledge and pedagogical content knowledge. (2) One course focused on grades 3-5 content 3 knowledge and pedagogical content knowledge. 4 (3) One course focused on coaching principles. 5 6 (4) One course focused on literacy in mathematics education to include analyzing student work for instructional 7 decisions. 8 (d) The K-5 mathematics coach endorsement program 9 10 shall prepare candidates who demonstrate conceptual 11 understanding and procedural fluency regarding major concepts 12 of mathematics appropriate for grades K-5. Candidates shall 13 satisfy all of the following: 14 (1) Demonstrate coaching principles including: 15 Goals, principles, and approaches in the Alabama Coaching 16 Framework. 17 (2) Understand adult learning principles that support collaboration with the ultimate goal of improved 18 19 student performance. 20 (3) Possess leadership experience. 21 (4) Understand the roles of school-based mathematics 22 coaches. 23 (5) Understand current research on the science of

SB171

24 learning.

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

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

5 (8) Understand the developmental nature of
6 mathematics and the interconnections among mathematical
7 concepts.

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

10 (10) Demonstrate knowledge of common errors and 11 misconceptions about the operations and how to help students 12 learn.

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

17 (12) Demonstrate understanding of teaching18 mathematics through problem solving.

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

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

1 (15) Understand the importance of spatial sense in students and the connection to academic success in STEM 2 fields. 3 (16) Understand how to use a variety of mental 4 5 computation techniques. 6 (17) Model, explain, and develop a variety of 7 computational algorithms. 8 (18) Describe and represent mathematical 9 relationships. 10 (19) Practice coaching cycles. 11 (20) Demonstrate ability to work with adults in an educational setting. 12 (21) Demonstrate ability to work with school 13 14 administrators in disaggregating data and developing 15 strategies. 16 (22) Demonstrate ability to effectively present 17 complex information to and engage with various stakeholders. 18 (e) The K-5 mathematics coach endorsement program 19 shall prepare candidates to do all of the following: 20 (1) Have knowledge of historical developments in 21 mathematics, including the contributions of underrepresented 22 groups and diverse cultures. 23 (2) Use their knowledge of student diversity to 24 affirm and support full participation and continued study of 25 mathematics by all students. Student diversity includes

SB171

1 gender, ethnicity, socioeconomic background, language, special needs, and mathematical learning styles. 2 (3) Use appropriate technology to support the 3 learning of mathematics. 4 5 (4) Use appropriate formative and summative 6 assessment methods to assess student learning and program effectiveness. 7 (5) Use formative assessments to monitor student 8 9 learning and to adjust instructional strategies and 10 activities. 11 (6) Use summative assessments to determine student 12 achievement and to evaluate the mathematics program. 13 (7) Know when and how to use student groupings such 14 as collaborative groups, cooperative learning, and peer teaching. 15 16 (8) Use instructional strategies based on current 17 research. (9) Work on an interdisciplinary team and in an 18 19 interdisciplinary environment. (10) Participate actively in the professional 20 21 learning community of mathematics educators. 22 (11) Analyze and organize data for interpretation 23 and application. 24 (f) Subject to legislative appropriation, the State 25 Superintendent of Education may establish an incentive program to provide a minimum two thousand five hundred dollar (\$2,500) annual stipend for any mathematics coach who has earned a K-5 mathematics coach endorsement.

Section 15. (a) Beginning October 1, 2022, the State 4 5 Superintendent of Education shall convene a working group to 6 create the Alabama Instructional Leadership Framework, applicable to all K-5 administrators. The State Superintendent 7 of Education shall utilize an external partner to facilitate 8 the working group. Implementation of the Alabama Instructional 9 Leadership Framework shall begin August 1, 2023. The State 10 11 Superintendent of Education shall ensure the working group 12 membership is inclusive and reflects the racial, gender, 13 geographic, urban, rural, and economic diversity of the state.

14 (b) The framework shall include, but not be limited15 to, all of the following:

16 (1) Establishing a clear and shared vision for17 teaching and learning, including all of the following:

18 a. Measuring success to include continually19 monitoring the vision.

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

c. Implementing a multi-tiered system of supports toimprove student achievement.

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

4 (3) Identifying and supporting evidence-based5 teaching practices for all content areas.

6 (4) Developing the ability to identify effective 7 instructional practices in early childhood and elementary 8 classrooms.

Section 16. (a) Beginning January 1, 2023, the 9 10 department shall lead a working group to develop a School 11 Turnaround Academy, to train principals and teacher leaders to specialize in evidence-based school turnaround strategies and 12 13 practices. The department shall partner with national or 14 state-level partners, or both, with a demonstrated record of 15 success in improving academic performance in low-performing 16 schools, with the intent to create a pipeline of school 17 turnaround principals and teacher leaders to support state academic intervention and reconstitution. 18

(b) The department shall explore new compensation
models to incentivize, reward, and retain high-quality
teachers and leaders in low-performing schools.

(c) The State Superintendent of Education shall
 ensure the membership of the working group is inclusive and
 reflects the racial, gender, geographic, urban, rural, and
 economic diversity of the state.

(d) The working group shall make initial
 recommendations to the Legislature, as necessary to implement
 changes in the law or funding to support this section no later
 February 1, 2024.

Section 17. (a) Beginning January 15, 2023, the 5 6 Executive Committee of the Alabama STEM Council shall employ an external consultant to evaluate Sections 1 to 19, 7 8 inclusive, the work of mathematics coaches, and the implementation and outcomes. The external consultant shall be 9 10 selected through an open request for proposals process adopted 11 by the executive committee. Each proposal shall be reviewed by a panel of key stakeholders, chosen by the executive 12 13 committee, and shall be assessed using a defined set of 14 priority indicators. The executive committee shall appoint a 15 panel of 11 stakeholders to review each proposal. The 16 membership of each panel shall include all of the following:

17

(1) The Director of the Alabama STEM Council.

18 (2) An elementary public school based mathematics19 coach.

20 (3) Two public elementary mathematics educators.

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

(5) The Director of AMSTI, or his or her designee.
(6) One AMSTI elementary mathematics specialist.
(7) One elementary public school principal.

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

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

6 (b) The appointing authorities shall coordinate 7 their appointments to assure the panel membership is inclusive 8 and reflects the racial, gender, geographic, urban, rural, and 9 economic diversity of the state.

10 (c) The external consultant shall design and adopt a 11 comprehensive evaluation plan to help with both the success and sustainability of the K-5 mathematics coach endorsement 12 13 program. The plan shall include, but not be limited to, 14 defining measures, developing instruments, using instruments 15 to collect data, analyzing data, the quarterly and annual 16 reporting of findings, and the development and implementation 17 of a measurement sustainability plan. The findings of the external consultant shall be used to recommend any adjustments 18 19 that need to be made for the continuous improvement of both the quality of implementation and assurance of desired 20 21 outcomes. The evaluation shall also include a cost benefit 22 return on investment study.

(d) The external consultant shall compile and submit
an annual report on or before January 30, and quarterly
reports no later than the last day of the month following each

1 quarter, to all of the following: The Governor, Lieutenant 2 Governor, State Board of Education, Speaker of the House of Representatives, President Pro Tempore of the Senate, Chair of 3 the House Ways and Means Education Committee, Chair of the 4 5 Senate Finance and Taxation Education Committee, Chair of the 6 House Education Policy Committee, Chair of the Senate Education Policy Committee, Minority Leader of the House of 7 8 Representatives, Minority Leader of the Senate, Director of 9 the Office of Mathematics Improvement, and the Executive 10 Committee of the Alabama STEM Council. Copies of all annual 11 and quarterly reports shall be conspicuously published on the 12 website of both the Alabama STEM Council and the department.

(e) Continued funding dedicated to K-5 mathematics
coaches shall be contingent on measurable performance growth,
as determined by the evaluations of the external consultant.

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

21 Section 18. (a) The State Superintendent of 22 Education, through the Office of Mathematics Improvement and 23 other sections of the department, shall provide technical 24 assistance to local education agencies in complying with this 25 section and Sections 1 to 17, inclusive, and Section 19.

1 (b) The State Board of Education may adopt rules as 2 necessary to implement and enforce this section and Sections 1 3 to 17, inclusive, and Section 19.

4 Section 19. Funds appropriated by the Legislature in 5 support of Sections 1 to 19, inclusive, shall be allocated to 6 support all of the following:

7 (1) The staff and operations of the Office of
8 Mathematics Improvement, including the director and regional
9 coordinators, professional learning activities, and
10 administrative activities; local school-based mathematics
11 coaches; teachers in residence; and AMSTI regional mathematics
12 specialists.

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

17 (3) Professional development on foundational
18 mathematics content knowledge as recommended by the Elementary
19 Mathematics Task Force in all full support schools and limited
20 support schools.

(4) The staff and operations of the Alabama Summer
 Mathematics Achievement Program in all full support schools.

(5) Professional development on instructional
leadership, as recommended by the Office of Mathematics

Improvement, for principals and assistant principals in all
 full support schools.

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

5 (7) Additional staff for the Office of School6 Improvement.

7 (8) External consultants to evaluate the work of
8 mathematics coaches' implementation and outcomes described in
9 Section 15.

Section 20. (a) The Legislature finds that the State Board of Education, in the fall of 2013, voted to rescind the Memorandum of Agreement that involved the State of Alabama in adopting the Common Core State Standards, which ceded control of Alabama's standards to entities other than the state and local educational agencies.

(b) The Legislature further finds that as part of
the termination process, the 2017-2018 Alabama Final
Consolidated State Plan superseded and terminated the
flexibility waiver agreement with the United States Department
of Education pertaining to the federal Every Students Succeeds
Act, which includes the adoption of the Common Core State
Standards.

(c) In order to codify the intent of the State Board
of Education, the State of Alabama hereby terminates all
plans, programs, activities, efforts, and expenditures

relative to the implementation of the educational initiative
 commonly referred to as the Common Core State Standards.

3 (d) The Legislature further prohibits the adoption
4 or implementation of any national standards or variations of
5 national standards from any source that cede control of
6 Alabama educational standards in any manner.

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

10 (f) No education entity or any state official shall 11 join any consortium or any other organization when 12 participation in that consortium or organization would cede 13 any measure of control over any aspect of Alabama public 14 education to any such entity.

15 (q) Nothing in this section shall be construed to 16 affect, prohibit, or inhibit the use of any of the following 17 tools, standards, or certifications in the public K-12 schools, any college entrance examination, workforce skills 18 assessment or examination, advanced placement course, career 19 technical credential, national board certification, academic 20 21 language therapy certification, Praxis or other core academic 22 skills for educators test, armed service vocational aptitude 23 test, or International Baccalaureate standard.

1	Section 21. This act shall become effective
2	immediately following its passage and approval by the
3	Governor, or its otherwise becoming law.

1					
2					
3					
4		President and Pres	iding Officer of t	the Senate	
5					
6		Speaker of the	House of Represent	tatives	
7 8 9 10 11 12 13 14 15	I hereby	02-MAR-22 by certify that the within Act originated in and passed hate, as amended. Patrick Harris, Secretary.			
16 17 18 19		Representatives nd passed 29-MAR-22			
20 21 22	Senate c	oncurred in House ame	endment 29-MAR-22		
23 24	By: Sena	or Orr			