



Mathematics Achievement Academies (MAA)

SBOE Math Standards Ad Hoc Committee | May 2025



Introduction



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Curriculum and Instruction**

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Overview

Statutory Authority: TEC §21.4553

Sec. 21.4553. TEACHER MATHEMATICS ACHIEVEMENT ACADEMIES. (a) The commissioner shall develop and make available mathematics achievement academies for teachers who provide mathematics instruction to students at any grade level.

(b) A mathematics achievement academy developed under this section must, if appropriate for the grade level at which the teacher provides instruction, include training in:

- (1) effective and systematic instructional practices in mathematics, including problem solving, the place value system, whole number operations, and fractions;
- (2) the underlying mathematical skills required to be taught; and
- (3) mathematical instruction techniques that, through scientific testing, have been proven effective.

(c) The commissioner shall adopt criteria for selecting teachers who may attend a mathematics achievement academy. In adopting selection criteria under this subsection, the commissioner shall:

- (1) require granting a priority to teachers employed by a school district at a campus at which 50 percent or more of the students enrolled are educationally disadvantaged; and
- (2) provide a process through which a teacher not employed at a campus described by Subdivision (1) may attend the academy if the academy has available space and the school district employing the teacher pays the costs of the teacher's attendance.

(d) From funds appropriated for that purpose, a teacher who attends a mathematics achievement academy is entitled to receive a stipend in the amount determined by the commissioner. A stipend received under this subsection is not considered in determining whether a district is paying the teacher the minimum monthly salary under Section 21.402.

(e) On request of the commissioner, regional education service centers shall assist the commissioner and agency with training and other activities relating to the development and operation of mathematics achievement academies.

(f) This section expires September 1, 2027.

(a) Originally K-3 only [84(R), SB 934], expanded to allow all grade levels in 2021 [87(R), SB 1267]

(b) Content requirements (also expanded in 2021)

(c) Criteria for teacher selection and prioritization

(d) Teacher stipend eligibility

(e) Support from Education Service Centers (ESCs) for development and delivery



The vision of the Mathematics Achievement Academies is to **ensure teachers of all grade levels of mathematics are highly trained in the effective and systematic practices of mathematics**, including problem-solving, the place value system, whole number operations, and fractions.

Mathematics Achievement Academy Learning Opportunities

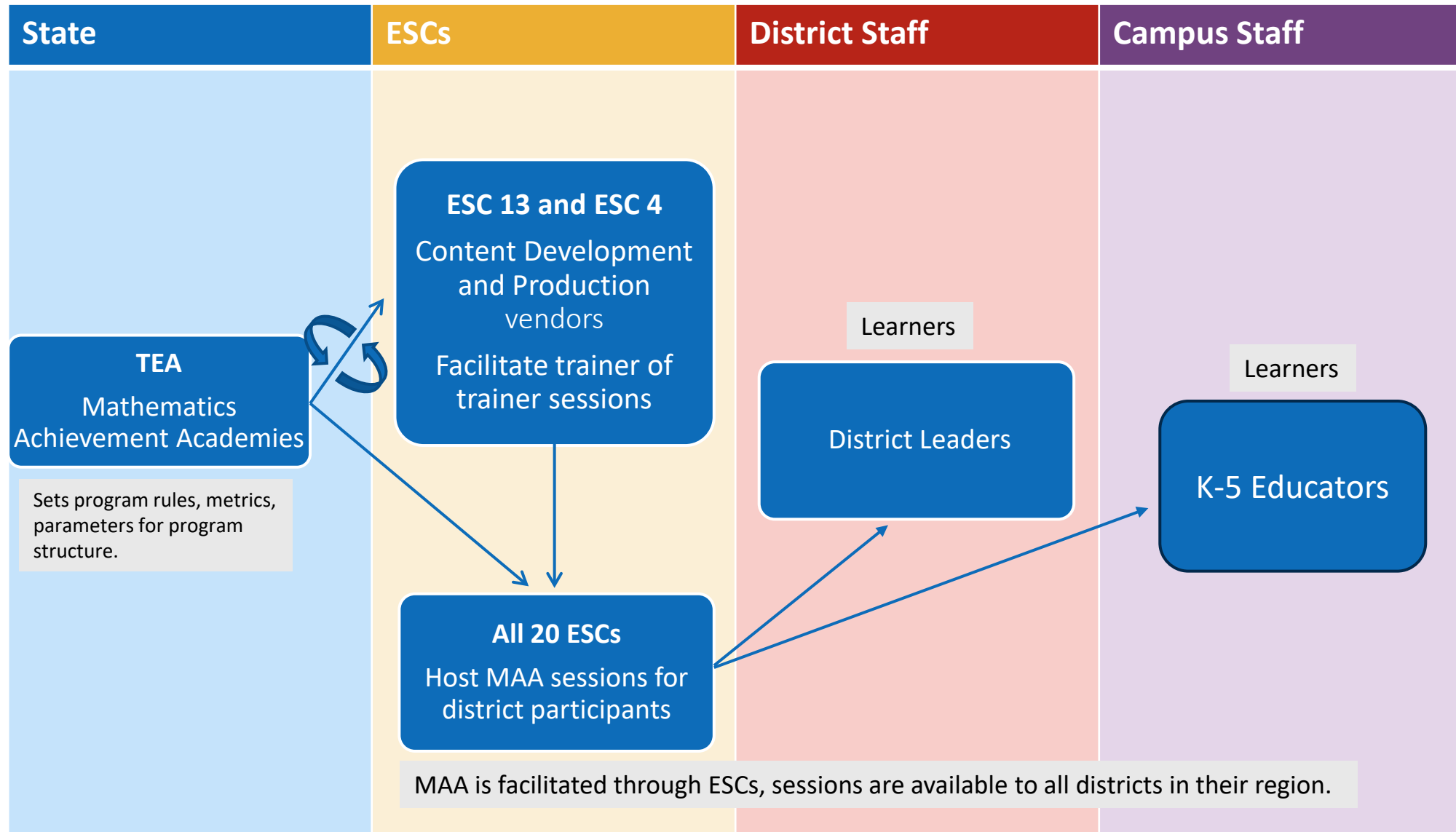


Three-Day Academy
Kindergarten/Grade 1,
Grade 2, and Grade 3

Three-Day Academy
Grade 4

Three-Day Academy
Grade 5
Summer 2024

Delivery Chain





Areas of Focus and Examples

Development of Big Ideas

Learning Progressions

Problem Solving

Procedural Fluency and Automaticity

Mathematical Practice and Strategies

Use of High-Quality Instructional Materials

Areas of Focus

Development of Big Ideas

Learning Progressions

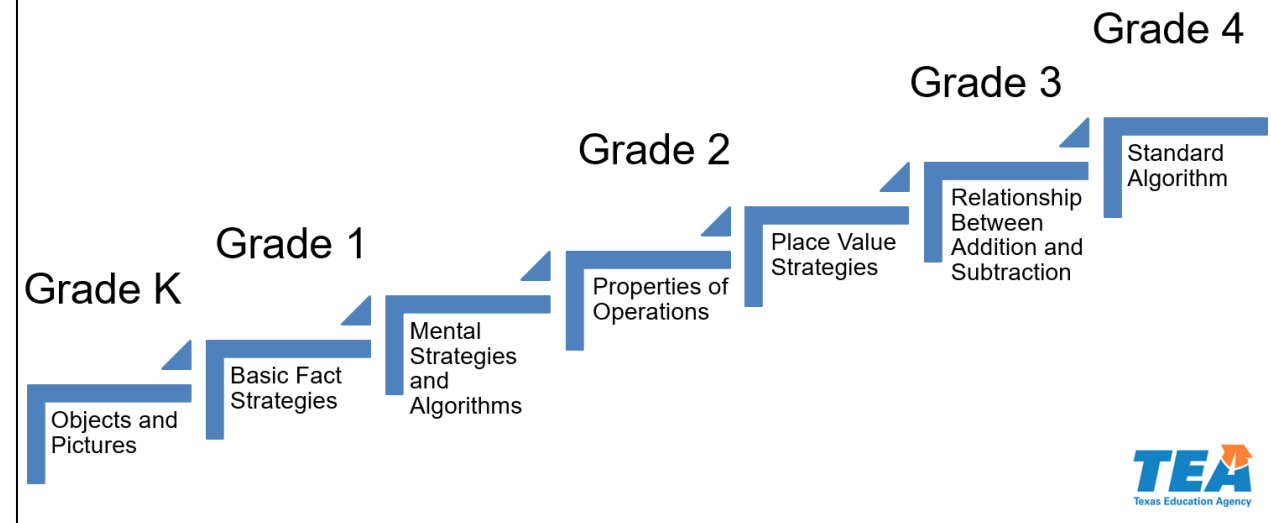
Problem Solving

Procedural Fluency and Automaticity

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Use of High-Quality Instructional Materials

TEKS Clarity: A Vertical Progression of Whole Number Addition and Subtraction



Vertical Progression of Whole Number Addition and Subtraction

Areas of Focus

Development of Big Ideas

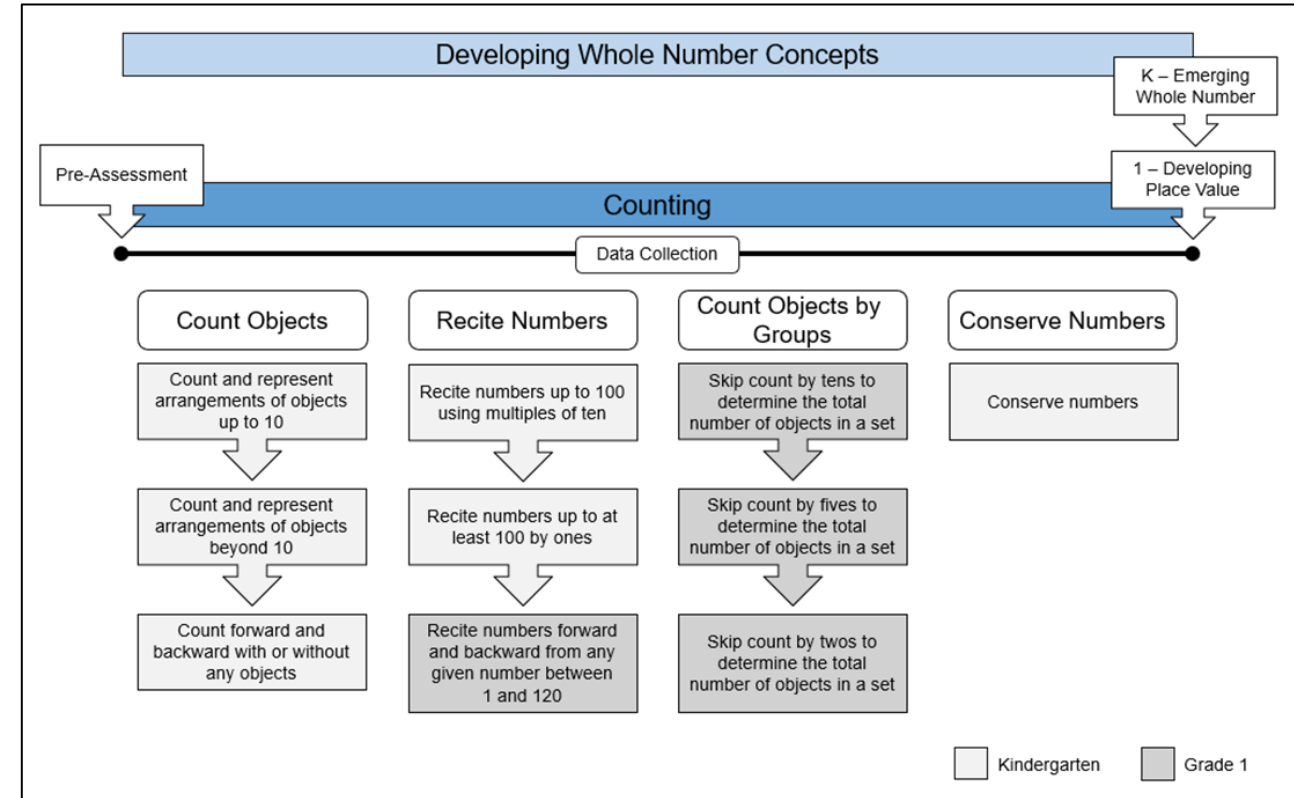
Learning Progressions

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K-1 Learning Progression: Counting

Areas of Focus

Development of Big Ideas

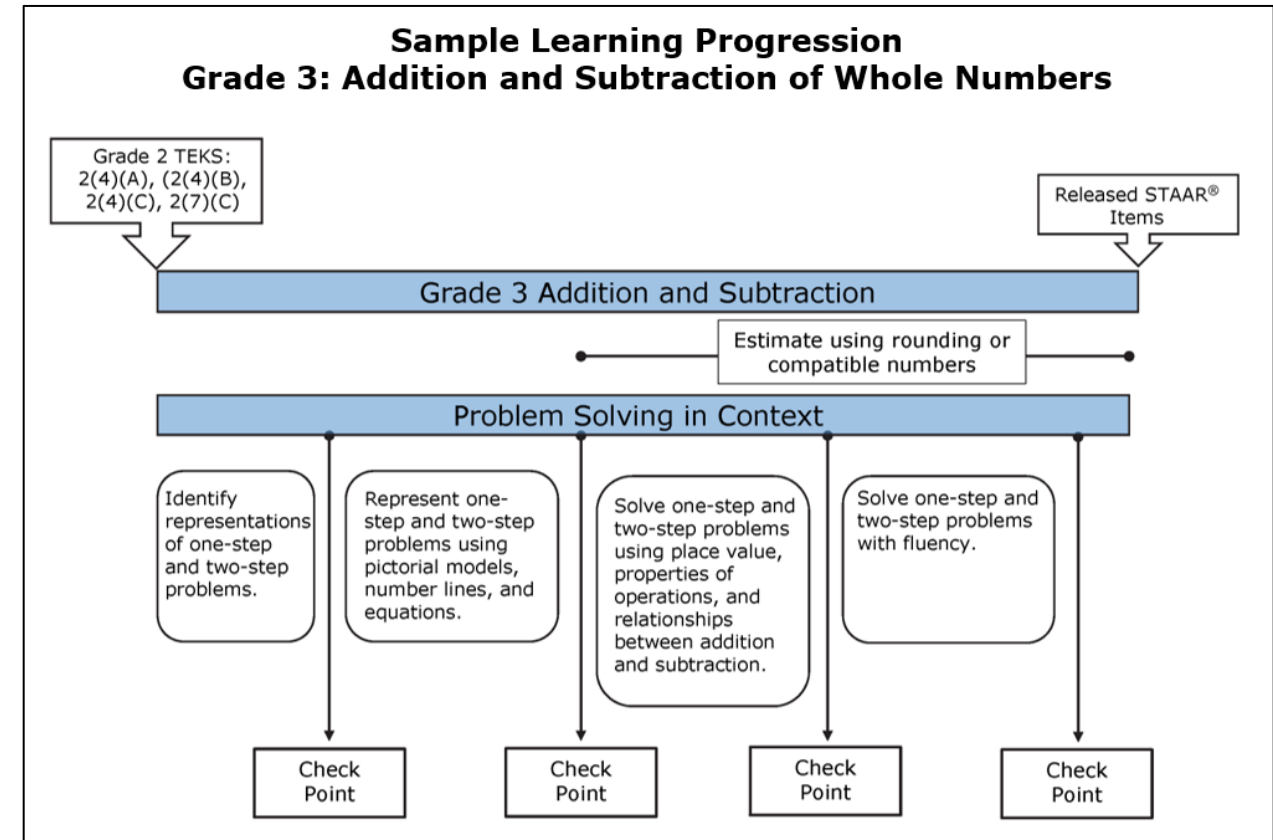
Learning Progressions

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3rd Grade Learning Progression: Addition and Subtraction

Development of Big Ideas

Learning Progressions

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TEKS-Based Problem-Solving Model



3(1)(B) The student is expected to use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the reasonableness of the solution.

Areas of Focus

Development of Big Ideas

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Problem-Solving Model Recording Sheet

Analyzing given information	
Formulating a plan or strategy	Determining a solution
Evaluating the reasonableness of the solution	
Justifying the solution	
Evaluating the problem-solving process	

Areas of Focus

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Strengthening Fluency Through Fact Retrieval

How might the **intentional sequencing** within and between these fluency practice activities support students with **automaticity**?

Lesson 1 Sprint **2 • 1**

1.	$10 + 1 = \underline{\quad}$
2.	$10 + 2 = \underline{\quad}$
3.	$10 + 4 = \underline{\quad}$
4.	$10 + 3 = \underline{\quad}$
5.	$10 + 5 = \underline{\quad}$
6.	$10 + 6 = \underline{\quad}$
7.	$\underline{\quad} = 10 + 1$

Lesson 9 Sprint **2 • 7**

1.	$9 + 2 =$	
2.	$9 + 3 =$	
3.	$9 + 4 =$	
4.	$9 + 7 =$	
5.	$7 + 9 =$	
6.	$10 + 1 =$	
7.	$10 + 2 =$	
8.	$10 + 3 =$	
9.	$10 + 8 =$	
10.	$8 + 10 =$	

Lesson 17 Sprint **3 • 1**

1.	$0 + 5 =$	
2.	$5 + 5 =$	
3.	$10 + 5 =$	
4.	$15 + 5 =$	
5.	$20 + 5 =$	
6.	$25 + 5 =$	
7.	$30 + 5 =$	
8.	$35 + 5 =$	
9.	$40 + 5 =$	
10.	$45 + 5 =$	

Areas of Focus

Development of Big Ideas

Learning Progressions

Problem Solving

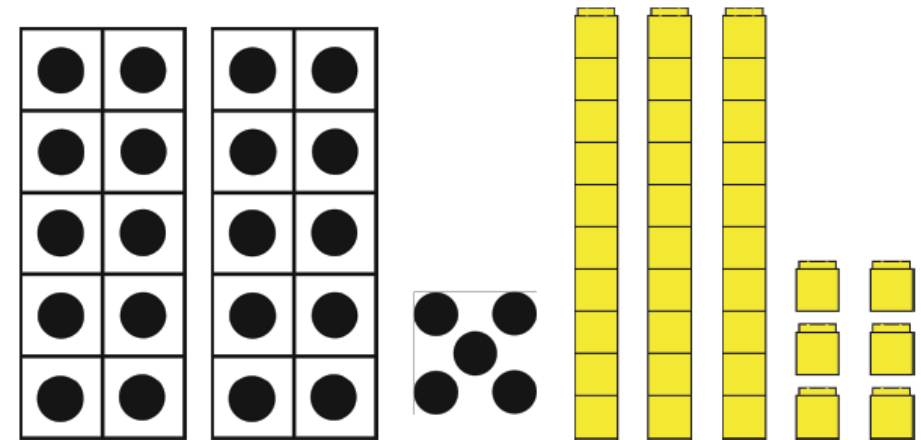
Procedural Fluency and Automaticity

Mathematical Practice and Strategies

Use of High-Quality Instructional Materials

Key Understandings: Whole Number Concepts: Representing Numbers

✏ Understanding of place value is developed through concrete experiences that involve grouping objects using tools such as linking cubes and ten frames that extend to the use of proportional tools such as base-ten blocks.



K-1st Grade: Representing Numbers

Areas of Focus

Development of Big Ideas

Learning Progressions

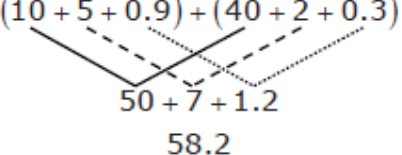
Problem Solving

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Addition Strategies

Place Value	Properties of Operations	Standard Algorithm
$15.9 + 42.3$ $(10 + 5 + 0.9) + (40 + 2 + 0.3)$  $50 + 7 + 1.2$ 58.2	$12.80 + 15.43$ $(12 + 15) + (0.80 + 0.43)$ $27 + 1.23$ $27 + 1 + 0.23$ 28.23	$12.8 + 15.43$ $\begin{array}{r} 12.80 \\ +15.43 \\ \hline 28.23 \end{array}$

4th Grade: Addition and Subtraction of Decimals

Areas of Focus

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BLUEBONNET LEARNING K-5 MATH Lesson 1 K • 4

Lesson 1

Objective: Model composition and decomposition of numbers to 5 using actions, objects, and drawings.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(25 minutes)
Student Debrief	(8 minutes)
Total Time	(50 minutes)



NOTE ON FLUENCY:

Throughout the module, teachers are encouraged to make appropriate adjustments to fluency activities to account for varying student needs.

Fluency Practice (12 minutes)

- 5-Frames: Counting Dots and Spaces K.2I (3 minutes)
- Making 3, 4, and 5 Finger Combinations K.2I (4 minutes)
- Make 5 Matching Game K.2I, K.3A (5 minutes)

Note: The following fluency activities review hidden partners of 3–5. This review helps students recall familiar relationships between numbers 1–5, preparing them to explore those relationships using the number bond model.

5-Frames: Counting Dots and Spaces (3 minutes)

Materials: (T) Large 5-frame cards (Fluency Template 1)

T: Raise your hand when you have counted the dots, and then wait for the snap to say the number. How many dots? (Show 4 dot card. Wait until all hands are raised, and then give the signal.)

S: 4.

T: How many empty spaces? (Wait until all hands are raised, and then give the signal.)

S: 1.

Continue to show cards, exploring all of the decompositions of 5.

Making 3, 4, and 5 Finger Combinations (4 minutes)

T: I'll show you some fingers. I want to make 3. Show me what is needed to make 3. (Show 2 fingers.)

S: (Show 1 finger.)

T: Raise your hand when you can say the number sentence. Start with my number.

S: 2 and 1 make 3.

24 Lesson 1: Model composition and decomposition of numbers to 5 using actions, objects, and drawings. Mathematics Achievement Academy, Kindergarten–Grade 1

BLUEBONNET LEARNING K-5 MATH Lesson 15 K • 4

Lesson 15

Objective: Represent decomposition and composition addition stories to 8 with drawings and equations with no unknown.

Suggested Lesson Structure

Fluency Practice	(12 minutes)
Application Problem	(5 minutes)
Concept Development	(25 minutes)
Student Debrief	(8 minutes)
Total Time	(50 minutes)



Fluency Practice (12 minutes)

- 5-Groups: Counting Dots and Spaces K.2I (3 minutes)
- Show Me Taller/Shorter K.2G, K.7B (4 minutes)
- Make 8 Matching Game K.2I, K.3A (5 minutes)

5-Groups: Counting Dots and Spaces (3 minutes)

Materials: (T) Large 5-group cards (Lesson 12 Fluency Template 2)

Note: Students use the support of the 5-groups to find partners of 10 simply. This practice prepares them to find partners of 10 and record the combination through drawings and equations in the second half of the module.

T: Raise your hand when you know the number of dots, and then wait for the snap to say the number. How many dots? (Show 9 dots.) (Snap.)

S: 9.

T: How many spaces?

S: 1.

Continue to show cards with the following possible sequence: 9, 1, 8, 2, 7, 3, 6, 4, 5.

162 Lesson 15: Represent decomposition and composition addition stories to 8 with drawings and equations with no unknown. ©2025 Texas Education Agency. All Rights Reserved. 88



Future of Math Academies

Reading

Math

Statute **requires** Reading Academies, with funds provided via the \$800M+ annual Early Education Allotment in the FSP plus rider funds.

Math Academies are **optional** and funded via rider.

Kindergarten – Grade 3
Teachers and Administrators
who have completed a
Reading Academy

141,000

Kindergarten – Grade 5 Teachers
who have completed a Math
Academy

30,000

Supporting Foundational Literacy and Numeracy

