

Chapter 7. Curriculum for Kindergarten

Part A. Correlation of Objectives with Recommended Textbooks

NUMBER STRAND – Kindergarten

Alabama Course of Study	TEAM-Math	Investigations ¹	SFAW ²
1. Demonstrate concepts of number sense by using one-to-one correspondence, counting in sequence by ones from 1 to 20, counting backward from 10, recognizing numerals 0-9, and comparing sets of objects up to 10 by using vocabulary terms including <i>more than, less than, most, or least</i> . Example: one-to-one correspondence— objects paired with objects, objects paired with numbers <ul style="list-style-type: none"> • Dividing a whole object into equal parts 	N1. Whole numbers		
	a. Demonstrate one-to-one correspondence	MT 1,4 COO 1	2: 1-4, 11 3: 1-2, 4, 6, 10 4: 1-2, 4, 6-7 5: 1, 13
	b. Count with understanding and recognize "how many" in sets of objects	MT 1,2,4 COO 1, 4 CCM 1,2,3,4,5,6	3: 1-6, 8, 10 4: 1-7, 11 5: 1, 10, 13 8: 12
	c. Compare sets of objects using the appropriate terminology	MT 4 CCM 3, 4, 5, 6	2: 1-4, 11 3: 6, 10 4: 6-7 5: 10, 13
	d. Know the value of one more and one less		9: 6
	e. Use multiple models to represent single digit numbers	MT 2 CCM 1, 2, 3, 4, 5, 6 COO 1	3: 2-4, 8 4: 7
	f. Recognize and connect numerals to quantities they represent	MT 2, 3 CCM 1, 2, 3, 6 HMA 1	3: 2, 4-7 4: 11 5: 2-5, 10, 13 8: 12
4. Identify a penny, nickel, dime, and quarter.	g. Identify quarters, dimes, nickels, and pennies		7: 11-15 10: 7 11: 7

¹ The following abbreviations are used for units from *Investigations in Number, Data and Space*: COO = “Counting Ourselves and Others”; CCM = “Collecting, Counting, and Measuring”; HMA = “How Many In All?” MT = “Mathematical Thinking in Kindergarten.” The numbers refer to the investigations within the units.

² SFAW refers to the *Scott Foresman Addison Wesley* series. The chapter number is given first, followed by the lesson number(s).

Alabama Course of Study	TEAM-Math	Investigations ³	SFAW ⁴
2. Demonstrate addition by using numbers totaling 5 or less and subtraction by using numbers less than or equal to 5. Example: using objects, number stories, or real-life situations	N2. Build knowledge and experience of addition and subtraction to:		
	a. Relate real life situations to the operations of joining and separating sets	HMA 3	10: 1, 8 11: 9
	b. Use multiple models to compose and decompose single digit whole numbers	HMA 2, 3, 4	9: 1-4, 6-8 10: 1-3, 7-8 11: 2, 7
	c. Recognize number of missing objects in simple groupings up to 5	HMA 3	
3. Recognize that a whole object can be divided into parts. Dividing a whole object into equal parts	d. Model single-digit (numbers to 5) addition and subtraction with objects	HMA 2, 3, 4	9: 1-4 10: 1, 3-8 11: 1-2, 4-7
	N3. Build knowledge and experience of fractions to:		
	a. Recognize that objects and sets can be divided into parts	MSBB 5	8: 8-11
	b. Compare parts of objects and parts of sets	MSBB 3, 5	8: 8-11
	c. Identify parts of objects and parts of sets that appear equal	HMA 2, 3, 4	8: 8-11

ALGEBRA STRAND– Kindergarten

Alabama Course of Study	TEAM-Math	Investigations	SFAW
5. Replicate patterns using concrete objects. a. Sorting objects by characteristics Examples: color, size, shape b. Describing characteristics of patterns and/or objects	A1. Build knowledge and experience with patterns, relations, and functions to:		
	a. Sort objects by color, shape, size, or other properties	COO 1, 2, 3, 4 PTHP 1	1: 6-10 8: 2 10: 8
	b. Identify, explain, and extend repeating patterns and recognize the patterns using different materials	PTHP 1, 2, 3, 4	2: 5-11 4: 10
	c. Interpret a pattern in more than one way	PTHP 2, 3, 4	2: 9
	d. Create patterns	PTHP 1, 2, 3, 4	2: 9-10
	A2. Use one-to-one correspondence and understanding of likenesses and differences to:		
	a. Determine and explain elements that belong in a pattern, and those that do not belong	PTHP 1, 2, 3, 4	
	b. Identify and explain equality using concrete materials (example: six green triangles in pattern blocks are "the same as" one yellow hexagon)	MSBB 1, 3, 4	

³ The following abbreviations are used for units from *Investigations in Number, Data and Space*: COO = “Counting Ourselves and Others”; HMA = “How Many In All?”; MSBB = “Making Shapes and Building Blocks”; PTHP = “Pattern Trains and Hopscotch Paths.” The numbers refer to the investigations within the units.

⁴ SFAW refers to the *Scott Foresman Addison Wesley* series. The chapter number is given first, followed by the lesson number(s).

GEOMETRY STRAND – Kindergarten

Alabama Course of Study	TEAM-Math	Investigations ⁵	SFAW ⁶
7. Identify rectangles, squares, circles, and triangles. a. Recognizing like shapes in the environment Examples: clock—circle, door—rectangle	G1. Recognize and name two-dimensional shapes to: a. Identify shapes in the environment	MSBB 1, 3	1: 10 8: 1, 4-5, 12
6. Create combinations of rectangles, squares, circles, and triangles using shapes or drawings.	b. Create combinations of rectangles, squares, circles, and triangles using drawings or concrete materials	MSBB 1, 2, 4, 5	8: 7
a. Describing relative location of objects using positional terms Examples: beside, inside, outside, above, below, between, on, over, under, near, far	G2. Build knowledge of spatial awareness through movement: a. Demonstrate knowledge of relative position and use vocabulary such as over, under, near, far, between, and other appropriate terminology b. Recognize that objects can be moved c. Follow simple directions to move from one location to another		1: 1-4, 10
	G3. Build knowledge and experience of transformation and symmetry to: a. Solve puzzles and manipulate shapes in combinations b. Experiment with folding and cutting two-dimensional materials	MSBB 2, 3, 4	
	G4. Develop visualization and spatial reasoning to: a. Recognize the number in simple groupings up to five without counting (example: domino dots) b. Locate items in the environment from physical descriptions		

MEASUREMENT STRAND – Kindergarten

Alabama Course of Study	TEAM-Math	Investigations	SFAW
8. Use vocabulary associated with length, height, volume, and weight to compare objects. Examples: longer than, as long as, shorter than, as short as, taller than, as tall as, holds more, as heavy as	M1. Compare the measurement of objects by experimenting with the length, height, weight, and volume	CCM 3	6: 1-10, 12
9. Use vocabulary associated with the measurement of time, including words related to clocks and calendars. Examples: before, after, first, last, hours, days, weeks, months	M2. Use vocabulary associated with the measurement of time Ex. Before lunch; After recess	MT 3	7: 1-6, 9, 16
	M3. Use calendar math to: identify day, date, month, day before, day after, yesterday, today, and tomorrow.	MT 3	7: 1-6, 9

⁵ The following abbreviations are used for units from *Investigations in Number, Data and Space*: CCM = “Collecting, Counting, and Measuring”; MSBB = “Making Shapes and Building Blocks”; MT = “Mathematical Thinking in Kindergarten.” The numbers refer to the investigations within the units.

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DATA ANALYSIS AND PROBABILITY STRAND – Kindergarten

Alabama Course of Study	TEAM-Math	Investigations ⁷	Scott Foresman Addison Wesley ⁸
<p>10. Complete data displays such as single-loop Venn diagrams and yes/no charts using real objects, concrete representations, or pictorial representations. Example: recording “yes” or “no” responses to the question “Do you have a yellow pencil?” by placing students’ names in the appropriate area of the Venn diagram</p> <p>a. Responding to questions for the purpose of data collection Examples: choosing favorite color, answering yes or no questions from data displays</p> <div data-bbox="291 592 579 769" style="text-align: center;"> </div>	D1. Develop an understanding of data collection to:		
	a. Respond to prepared data collection models (yes/no charts, single Venn diagrams, bar graphs, and other models)	MT 4 COO 1, 2, 3, 4	2: 2-4 5: 12
	b. Use real objects, representative concrete objects, pictures, or symbols to gather data from one's immediate environment	MT 4 COO 1, 2, 3, 4 CCM 2, 3, 5	2: 2-4 5: 12
	c. Sort and classify data collected from the environment	CCM 2, 3, 5	2: 2-4 5: 12
	d. Make observations about data collected	MT 4 COO 1, 2, 3, 4 CCM 2, 3, 5	2: 2-4 5: 12
	e. Pose questions about oneself or one's surroundings that can be answered with the collection of data	COO 1, 2, 3, 4	2: 2-4 5: 12
	D2. Communicate possible and impossible outcomes in a given concrete situation		

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Part B. Suggested Sequence of Instructions

In kindergarten, many things are introduced during the course of the year. Although many skills will be introduced earlier, the marked areas below represent a goal for mastery during the kindergarten year on those items that require mastery.

NUMBER STRAND – Kindergarten

TEAM-Math Objective	Quarter			
	1	2	3	4
N1. Whole numbers				
a. Demonstrate one-to-one correspondence	X			
b. Count with understanding and recognize “how many” in sets of objects		X		
c. Compare sets of objects using the appropriate terminology		X		
d. Know the value of one more and one less			X	
e. Use multiple models to represent single digit numbers	X			
f. Recognize and connect numerals to quantities they represent		X		
g. Identify quarters, dimes, nickels, and pennies				X
N2. Build knowledge and experience of addition and subtraction to:				
a. Relate real life situations to the operations of joining and separating sets			X	
b. Use multiple models to compose and decompose single digit whole numbers				X
c. Recognize number of missing objects in simple groupings up to 5				X
d. Model single-digit (numbers to 5) addition and subtraction with objects				X
N3. Build knowledge and experience of fractions to:				
a. Recognize that objects and sets can be divided into parts			X	
b. Compare parts of objects and parts of sets			X	
c. Identify parts of objects and parts of sets that appear equal			X	

ALGEBRA STRAND– Kindergarten

TEAM-Math Objective	Quarter			
	1	2	3	4
A1. Build knowledge and experience with patterns, relations, and functions to:				
a. Sort objects by color, shape, size, or other properties	X			
b. Identify, explain, and extend repeating patterns and recognize the patterns using different materials			X	
c. Interpret a pattern in more than one way		X		
d. Create patterns			X	
A2. Use one-to-one correspondence and understanding of likenesses and differences to:				
a. Determine and explain elements that belong in a pattern, and those that do not belong		X		
b. Identify and explain equality using concrete materials (example: six green triangles in pattern blocks are “the same as” one yellow hexagon)				X

GEOMETRY STRAND – Kindergarten

TEAM-Math Objective	Quarter			
	1	2	3	4
G1. Recognize and name two-dimensional shapes to:				
a. Identify shapes in the environment	X			
b. Create combinations of rectangles, squares, circles, and triangles using drawings or concrete materials	X			
G2. Build knowledge of spatial awareness through movement:				
a. Demonstrate knowledge of relative position and use vocabulary such as over, under, near, far, between, and other appropriate terminology		X		
b. Recognize that objects can be moved	X			
c. Follow simple directions to move from one location to another	X			
G3. Build knowledge and experience of transformation and symmetry to:				
a. Solve puzzles and manipulate shapes in combinations	X			
b. Experiment with folding and cutting two-dimensional materials				X
G4. Develop visualization and spatial reasoning to:				
a. Recognize the number in simple groupings up to five without counting (example: domino dots)			X	
b. Locate items in the environment from physical descriptions	X			

MEASUREMENT STRAND – Kindergarten

TEAM-Math Objective	Quarter			
	1	2	3	4
M1. Compare the measurement of objects by experimenting with the length, height, weight, and volume	X			
M2. Use vocabulary associated with the measurement of time Ex. Before lunch, After recess	X			
M3. Use calendar math to: identify day, date, month, day before, day after, yesterday, today, and tomorrow.			X	

DATA ANALYSIS AND PROBABILITY STRAND – Kindergarten

TEAM-Math Objective	Quarter			
	1	2	3	4
D1. Develop an understanding of data collection to:				
a. Respond to prepared data collection models (yes/no charts, single Venn diagrams, bar graphs, and other models)	X			
b. Use real objects, representative concrete objects, pictures, or symbols to gather data from one's	X			
c. immediate environment	X			
d. Sort and classify data collected from the environment	X			
e. Make observations about data collected	X			
f. Pose questions about oneself or one's surroundings that can be answered with the collection of data	X			
D2. Communicate possible and impossible outcomes in a given concrete situation	X			