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2024-2025 Kindergarten Grade Math Pacing Guide

2019 Alabama Course of Study (Kindergarten) ALEX **short week**

Parent Video Resources: Graham Fletcher Counting Progressions,

AL Standard	Dates	Eureka Module & Lesson	Expectations	Teacher Vocabulary	Parent Helps, Instructional Resources, Digital Resources
	August-October		School Routines & Procedures	Months of the Year Days of the Week	• Math by the Book, Illustrative Math, AMSTI resources, Howard County Resources
13. Duplicate & extend simple patterns using concrete objects **15. Classify objects into given categories of 10 or fewer; count the number of objects in each category & sort the categories by count. a. Categorize data on Venn diagrams, pictographs, & "yes-no" charts using real objects, symbolic representations, or pictorial representations.** **16. Identify & describe measurable attributes (length, weight, height) of a single object using vocabulary such as long/short, heavy/light, or tall/short.**					
13 16	**August-October**	Module 1, Topic A, Introduce patterns	Attributes of two related Objects Duplicate simple patterns (AB)	Simple pattern, sequence, same, different, attribute, edges, pattern, long, short, heavy, light, tall, short	• Helpful Parent videos: • One to One Correspondence • By the end of Topic A, your students should be able to: Identify two objects that are exactly the same or not exactly the same. Identify two similar objects & explain how they are different. • Math by the Book: Chapter 20: Exploring Measurable Attributes with *Sometimes with Do* by Omo Moses
15	**August-October**	Module 1, Topic B,	Classify to make categories & count	Classify, categorize, Yes/no charts, Bar graphs, Symbolic/pictorial representations	• Ways to work at home: Give your child a collection of items and have them touch and count the items. • By the end of Topic B, your students should be able to: Classify objects into categories & count how many. • Math by the Book: Chapter 19: Sorting and Classifying with *Grandma's Button Box* by Linda Williams Aber • Website for number sense routines
AL Standard	**Dates**	**Eureka Module Lesson**	**Expectations**	**Teacher Vocabulary**	**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**

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1. Count forward orally from 0 to 100 by ones & by tens. Count backward orally from 10 to 0 by ones.
3a. Write numerals from 0 to 20. a. Represent 0 to 20 using concrete objects when given a written numeral from 0 to 20 (with 0 representing a count of no objects).
4. Connect counting to cardinality using a variety of concrete objects. 4a. Say the number names in consecutive order when counting objects. 4b. Indicate that the last number name said tells the number of objects counted in a set. 4c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. 4d. Explain that each successive number name refers to a quantity that is one larger
5. Count to answer "how many?" questions. b. Count using no more than 10 concrete objects in a scattered configuration. 5c. Draw the number of objects that matches a given numeral from 0 to 20.

AL Standard	Dates	Eureka Module Lesson	Expectations	Teacher Vocabulary	Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources
3a 4a 4b 4c 4d 5b 5c	August-October	Module 1, Topic C,	Numerals to 5 in different configurations, math drawings, & expressions	Cardinality, array, Numerals, number, counting, Cardinality, One to one correspondence, hierarchical inclusion	• Additional Number Handwriting • By the end of Topic C, your students should be able to: Count objects in rows & columns & match to a numeral card. Have a strong understanding of the term "5-group" & the configuration of it. (Important for future modules.) Use fingers to represent numbers 1-5 in different ways. • By the end of Topic D, your students should be able to: Count & write numerals 0 to 5. Answer "how many" questions in categories. Sort objects & count them. Use drawings to decompose numbers 4 & 5 without using equations. • By the end of Topic E, your students should be able to: Count 4-6 objects in rows, columns, array, circular, & scattered configurations. Write numerals 1-8. Match objects to numbers & 5 group images. Compare two sets of the same number. • By the end of Topic F, your students should be able to: Count 9-10 objects in rows, columns, array, circular, & scattered configurations. Write numerals 1-10. • Match objects to numbers & 5 group images • Act out story problems without equations. • Counting collections should be within 10. • Math by the Book: Chapter 1: Exploring Numbers 1-5 with *Five Green and Speckled Frog*s by Priscilla Burris • Math by the Book: Chapter 2: Number concepts and counting to 10 with *Ten Pigs: An Epic Bath Adventure* by Derek Anderson • Math by the Book: Chapter 3: Counting Collections with *Grandma's Purse* by Vanessa Brantley-Newton
	August-October	Module 1, Topic D,	Concept of zero & numbers 0 -5	zero	
	August-October	Module 1, Topic E,	Numbers 6-8 in different configurations	subitize	
	August-October	Module 1, Topic F,	Numbers 9-10 in different configurations		
1 4 4a 4b 4c	August-October	Module 1, Topic G, **END MODULE 1**	One more than with numbers 0-10, countdown from 10 to 1	More, fewer, less, equal, count, forwards, backwards	• By the end of Topic G, your students should be able to: Order & match numeral & dot cards from 1-10 & state what number would be one more. Make math stairs from 1-10. Arrange, analyze, & draw 1 more up to 10 using number stairs & towers. • Math by the Book: Chapter 4: Exploring Zero with *Flower Garden* by Eve Bunting
	August-October	Review Numbers 0-10, Take a week to practice and review all numbers and quantities, Review Standards from 1st Nine Weeks			
August-October		Report Card Testing / Review Standards from 1st Nine Weeks, End of 1st Nine Weeks 0-5 ESGI Assessment			

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13. Duplicate & extend simple patterns using concrete objects. 18. Describe objects in the environment using names of shapes, & describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, & next to. 19. Correctly name shapes regardless of their orientations or overall sizes. 20. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid"). 21. Analyze & compare two- & three-dimensional shapes, in different sizes & orientations, using informal language to describe their similarities, differences, parts (number of sides & vertices or "corners"), & other attributes. Example: having sides of equal length					
13 18 19 20 21	**October-December**	Module 2, Topic A, Patterns	Two-dimensional flat shapes Duplicate & extend patterns (ABB, ABC)	Hexagon, square, triangle, circle, rectangle, flip, rotate, flat, plane shape, two-dimensional	• Parent help at home: Have your child make shapes with play doh, point out shapes in real life.(ex. Cereal box-rectangle, yield sign-triangle, etc.) • By the end of Topic A, your students should be able to: • Find, describe, & classify triangles, squares, rectangles, hexagons, & circles without naming. • Identify triangles, squares, rectangles, hexagons, & circles using names. • Use words above, below, beside, in front of, next to, & behind to describe positions of flat shapes. • By the end of Topic B, your students should be able to: • Find & describe solid shapes without naming. • Use words above, below, beside, in front of, next to, & behind to describe positions of solid shapes. • By the end of Topic C, your students should be able to: • Identify & sort shapes as flats & solids & recognize flats & solids in different orientations & sizes. • Math by the Book: Chapter 15: *Using Positional Words with Have You Seen My New Blue Socks?* By Eve Bunting • Math by the Book: Chapter 16: Naming and Describing Shapes with *Walter's Wonderful Web* by Tim Hopgood
	October-December	Module 2, Topic A,	Two-dimensional flat shapes, positional words		**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**
	October-December	Module 2, Topic C, **END MODULE 2**	Two-dimensional & three-dimensional shapes	orientation	• Parent help: Have your child measure objects in the house using non-standard measurement objects (popsicle sticks, paper clips, blocks) How many sticks long is the table?, etc. • By the end of Topic A, your students should be able to: • Use taller than & shorter than to describe lengths with different endpoints. • Compare length measurements using string. • By the end of Topic C, your students should be able to: • Use terms "heavier than" & "lighter than" to compare objects within the classroom. • Use a balance scale to compare objects using terms "heavier than", "lighter than", & "the same as". • By the end of Topic D, your students should be able to: • Compare & explore volume using "more than", "less than", & "the same as" by pouring rice, water, s&, etc. into containers. • Math by the Book: *Circle! Sphere*! By Grace Lin • Math by the Book: *Shapes at Pla*y by Silvia Borando
	October-December	Module 3, Topic C,	Comparison of weight	More than, less than, same as	
	October-December	Module 3, Topic D,	Comparison of volume		
Thanksgiving Holiday 11/20-11/24					

6. Orally identify whether the number of objects in one group is greater/more than, less/fewer than, or equal/the same as the number of objects in another group, in groups containing up to 10 objects, by using matching, counting, or other strategies.					
6	**October-December**	Module 3, Topic E,	Are there enough? (area)	Compare, Greater than, More than, Less than, Fewer than, Equal	• Parent Help: Have students grab two handfuls of objects (noodles, pennies, etc) and have them compare which is more/less • By the end of Topic E, your students should be able to: • Make comparisons of area. • Compare to determine if there is enough. • Use "more than", "fewer than", & "the same as" to compare.
AL Standard	**Dates**	**Eureka Module Lesson**	**Expectations**	**Teacher Vocabulary**	**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**
15. Classify objects into given categories of 10 or fewer; count the number of objects in each category & sort the categories by count. a. Categorize data on Venn diagrams, pictographs, & "yes-no" charts using real objects, symbolic representations, or pictorial representations.					
15	**October-December**	Collecting, Organizing, & Graphing Data	Graphing, Venn diagrams	Classify, categorize, Venn diagrams Pictographs, Yes/no charts, Bar graphs, Symbolic representations, Pictorial representations	• Counting Collections can move to within 20. Concrete only-no recording
October-December		Report Card Testing / Star Math Testing ESGI assessment 6-10 Writing Numbers 0-10 Review Standards from 2nd Nine Weeks, Christmas Math Activities			
October-December		Christmas Math Activities **End of 2nd Nine Weeks**			
Christmas Holidays: December 20 - January 6th					
4. Connect counting to cardinality using a variety of concrete objects. 4c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. 6. Orally identify whether the number of objects in one group is greater/more than, less/fewer than, or equal/the same as the number of objects in another group, in groups containing up to 10 objects, by using matching, counting, or other strategies. 7. Compare two numbers between 0 & 10 presented as written numerals (without using inequality symbols).					

8 9 10 11 12	**January-March**	Module 3, Topic F,	Comparison of sets within 10	Cardinality, One to one correspondence, Hierarchical inclusion, joining , Addition	• Parent Help: Addition and Subtraction Progression • By the end of Topic F, your students should be able to: • Use cubes to relate more & less to length. • Identify & create a set with the same number, one more, & one less. • By the end of Topic G, your students should be able to: • Compare a quantity of objects using more & less. • Strategize & visualize to compare two sets or numerals. • Math by the Book: Chapter 8: Comparing Quantities with *Goodbye, Autumn, Hello Winte*r by Kenard Pak
8 9 10 11 12	**January-March**	Module 3, Topic G,	Comparison of numerals		
8 9 10 11 12	**January-March**	**Introduce Addition during this week. Hands-on activities with joining two groups.**	Combining two sets of objects. Do not use plus and equal sign yet. Ex. 3 and 2 is 5.		
	Dates	**Eureka Module Lesson**	**Expectations**	**Teacher Vocabulary**	**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**
8. Represent addition & subtraction up to 10 with concrete objects, fingers, pennies, mental images, drawings, claps or other sounds, acting out situations, verbal explanations, expressions, or equations. 9. Solve addition & subtraction word problems, & add & subtract within 10, by using concrete objects or drawings to represent the problem. 10. Decompose numbers less than or equal to 10 into pairs of smaller numbers in more than one way, using concrete objects or drawings, & record each decomposition by a drawing or equation. Ex: 5 = 2 + 3 & 5 = 4 + 1 11. For any number from 0 to 10, find the number that makes 10 when added to the given number, by using concrete objects or drawings, & record the answer with a drawing or equation. 12. Fluently add & subtract within 5.					
8 9 10 11 12	**January-March**	Module 4, Topic A,	Addition/Compositions of 2, 3, 4, & 5	Expression, Equation, Concrete objects, Drawings, Decompose, quation, Fluently, Add, &, plus, equation, more, number sentence, join, total, combine, equal	• By the end of Topic A, your students should be able to: • Model & represent composition of numbers to 5 using: fingers, linking cubes, number bonds, pictures, actions, drawings, & stories. • Math by the Book: Chapter 12: Exploring Addition with Little Quack
8 9 10 11 12	**January-March**	Module 4, Topic C,	Addition with totals of 6, 7, & 8		• By the end of Topic B, your students should be able to: • Model compositions for numbers 6-8 using stories, objects, sets, arrays, & number bonds. • Model and compose numbers 6-8 with linking cubes to see patterns. • Demonstrate how to use a 5-group to show the 5 + n pattern to 8.
8 9 10 11 12	**January-March**	Module 4, Topic F,	Addition of totals of 9 and 10		• By the end of Topic C, your students should be able to: • Represent addition stories using composition with drawings for numbers 6, 7, & 8. Support will be needed. • Solve word problems to 8 using the terms “add to with result unknown” & “put together with total unknown” using objects & drawings. • Box the unknown number with support. • Use number pairs to find addition in word problems with “both addends unknown”. Click here for problem types • By the end of Topic F, your students should be able to: • • Use pictures to compose addition stores to 10 using the 5-group drawings &

					equations with no unknown. ● Solve addition problems with missing addends & missing totals up to 10 using 5-group drawings.
	January-March	Addition within 5 fluency	Addition within 5 fluency		
AL Standard	**Dates**	**Eureka Module Lesson**	**Expectations**	**Teacher Vocabulary**	**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**
8. Represent addition & subtraction up to 10 with concrete objects, fingers, pennies, mental images, drawings, claps or other sounds, acting out situations, verbal explanations, expressions, or equations. 9. Solve addition & subtraction word problems, & add & subtract within 10, by using concrete objects or drawings to represent the problem. 10. Decompose numbers less than or equal to 10 into pairs of smaller numbers in more than one way, using concrete objects or drawings, & record each decomposition by a drawing or equation. Ex: 5 = 2 + 3 & 5 = 4 + 1 11. For any number from 0 to 10, find the number that makes 10 when added to the given number, by using concrete objects or drawings, & record the answer with a drawing or equation. 12. Fluently add & subtract within 5.					
8 9 10 11 12	**January-March**	Use this week to assess and review previous standards taught. Report Card Testing / Review Standards from 3rd Nine Weeks **End of 3rd Nine Weeks 3-8**		Count, forwards, backwards, numeral, number, cardinality, one-to-one correspondence, hierarchical inclusion, subitize, counting, composing, decomposing Counting ten ones and some more ones	● By the end of Topic A, your students should be able to: Separate objects into piles of tens & ones. Describe objects as 10 ones & ____ ones. ● Math by the Book: Chapter 9: Understanding Numbers 11-20 with *Grandma's Tiny House* by JaNay Brown-Wood
	March-May	**Module 5 Topic A** **(Composing numbers 11-20 represent and write teen numbers)**			● Teen Numbers (ten frames) ● By the end of Topic B, your students should be able to: Model & write numbers 10-20 with place value & number bonds. Demonstrate teen numbers using materials from abstract to concrete & abstract to pictorial.
	March-May	Module 5, Topic B	Decompose numbers 11-20, & count to answer "How Many?" questions in varied configurations		● By the end of Topic C, your students should be able to: Use a Rekenrek to build numbers to 20. Show, count, & write numbers to 20 using a pattern of 1 larger & 1 smaller. Show, count, & write to answer "how many" questions in linear, array, & circular configurations up to 20 objects. ● Counting collections within 20 with recording.
	March-May	Topic C, Module 5, Topic D,	Extend the say ten & regular count sequence to 100		● By the end of Topic H, your students should be able to: • Add & subtract numbers 0-10. Use a number line to add & subtract. • Find the number that makes 10 using an addition equation & a 5-group drawing. ● Counting by tens.

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1. Count forward orally from 0 to 100 by ones & by tens. Count backward orally from 10 to 0 by ones. 2. Count to 100 by ones beginning with any given number between 0 & 99. 3. Write numerals from 0 to 20. a. Represent 0 to 20 using concrete objects when given a written numeral from 0 to 20 (with 0 representing a count of no objects). 4. Connect counting to cardinality using a variety of concrete objects. 4a. Say the number names in consecutive order when counting objects 4b. Indicate that the last number name said tells the number of objects counted in a set. 4c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. 4d. Explain that each successive number name refers to a quantity that is one larger. 5. Count to answer "how many?" questions. a. Count using no more than 20 concrete objects arranged in a line, a rectangular array, or a circle. 5c. Draw the number of objects that matches a given numeral from 0 to 20. 14. Compose & decompose numbers from 11 to 19 by using concrete objects or drawings to demonstrate understanding that numbers are composed of ten ones & one, two, three, four, five, six, seven, eight, or nine ones.					
1, 2, 3a 4a, 4b, 4c, 4d 5a, 5c, 14	**March-May**	Module 4, Topic A, Begin Subtraction.	decompositions of 2, 3, 4, & 5 Subtraction	decomposing Subtract less, minus, subtract, difference, take away, separate	• By the end of Topic A, your students should be able to: • Model & represent decomposition of numbers to 5 using: fingers, linking cubes, number bonds, pictures, actions, drawings, & stories. • Represent number bonds using stories to decompose numbers to 5. • Math by the Book: Chapter 10: Decomposing Numbers to 10 with *Quack and Count* by Keith Baker
AL Standard	**Dates**	**Eureka Module Lesson**	**Expectations**	**Teacher Vocabulary**	**Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources**
1. Count forward orally from 0 to 100 by ones & by tens. Count backward orally from 10 to 0 by ones. 2. Count to 100 by ones beginning with any given number between 0 & 99. 3. Write numerals from 0 to 20. a. Represent 0 to 20 using concrete objects when given a written numeral from 0 to 20 (with 0 representing a count of no objects). 4. Connect counting to cardinality using a variety of concrete objects. 4a. Say the number names in consecutive order when counting objects 4b. Indicate that the last number name said tells the number of objects counted in a set. 4c. Indicate that the number of objects in a set is the same regardless of their arrangement or the order in which they were counted. 4d. Explain that each successive number name refers to a quantity that is one larger. 5. Count to answer "how many?" questions. a. Count using no more than 20 concrete objects arranged in a line, a rectangular array, or a circle. 5c. Draw the number of objects that matches a given numeral from 0 to 20. 14. Compose & decompose numbers from 11 to 19 by using concrete objects or drawings to demonstrate understanding that these numbers are composed of ten ones & one, two, three, four, five, six, seven, eight, or nine ones.					
1 2 3a 4a 4b 4c 4d 5a 5c 14	**March-May**	Module 4, Topic B,	Decompositions of 6, 7, & 8 into number pairs	decomposing Subtract less, minus, subtract, difference, take away, separate	• By the end of Topic B, your students should be able to: • Model decompositions for numbers 6-8 using stories, objects, sets, arrays, & number bonds. • Model and decompose numbers 6-8 with linking cubes to see patterns. • Demonstrate how to use a 5-group to show the 5 + n pattern to 8. • Math by th eBook: Chapter 11: Decomposing Ten with *Ten Flashing Fireflies* by Philemon Sturges
	March-May	Module 4, Topic D,	Subtraction from numbers to 8		• By the end of Topic D, your students should be able to: • Solve problems & find how many are left. • Decompose 6, 7, & 8 using the 5-group drawings by breaking off, hiding, or crossing off a part. • Record subtraction problem with drawing & equation. See Padlet for more resources. • Math by the Book: Chapter 13: Exploring Subtraction with *10 Gulab Jamuns: Counting with an Indian Sweet Treat* by Sandhya Acharya
	March-May	Module 4, Topic G,	Subtraction from 9 & 10		• End of Topic E, your students should be able to: Decompose 9 & 10 using story prob.

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AL Standard	Dates	Eureka Module Lesson	Expectations	Teacher Vocabulary	Instructional Resources, Small Groups, Tier II, K investigation Games, Digital Resources
21. Analyze & compare two & three dimensional shapes, in different sizes & orientations, using informal language to describe their similarities, differences, parts (number of sides & vertices or "corners"), & other attributes. Example: having sides of equal length **22. Model shapes in the world by building them from sticks, clay balls, or other components & by drawing them.** **23. Use simple shapes to compose larger shapes. Example: Join two triangles with full sides touching to make a rectangle.**					
21 22 23	**March-May**	Module 6, Topic A,	Building & drawing flat & solid shapes	Attributes, corners, vertices, angles, shapes, circle, square, rectangle, triangle, hexagon, flat shape, open/closed shape, sides, edges	● By the end of Topic A/B, your students should be able to: use informal & some formal language to describe attributes of shapes. Compare & contrast a variety of shapes. Compose shapes with known attributes using a variety of materials (geoboards, popsicle sticks, play-dough) ● NOTE: Do not limit students to standard shapes. Expose students to different orientations, sizes, & configurations of shapes. ○ Example: Any 6 sided shape is a hexagon. ○ Example: A square is a rectangle, but a rectangle is not a square
		Module 6, Topic B,	Composing & decomposing shapes		
23	**March-May**	Module 6, Topic B, Begin Report Card Testing **END MODULE 6**	Composing & decomposing shapes		
	March-May	Report Card Testing Subtraction Assessment Teen Numbers Assessment Writing numbers 11-20 ● Counting collections can be 20 plus according to students ability level. Review Standards from 4th Nine Weeks **End of 4th Nine Weeks**			
	March-May				

QR code to send to parents: