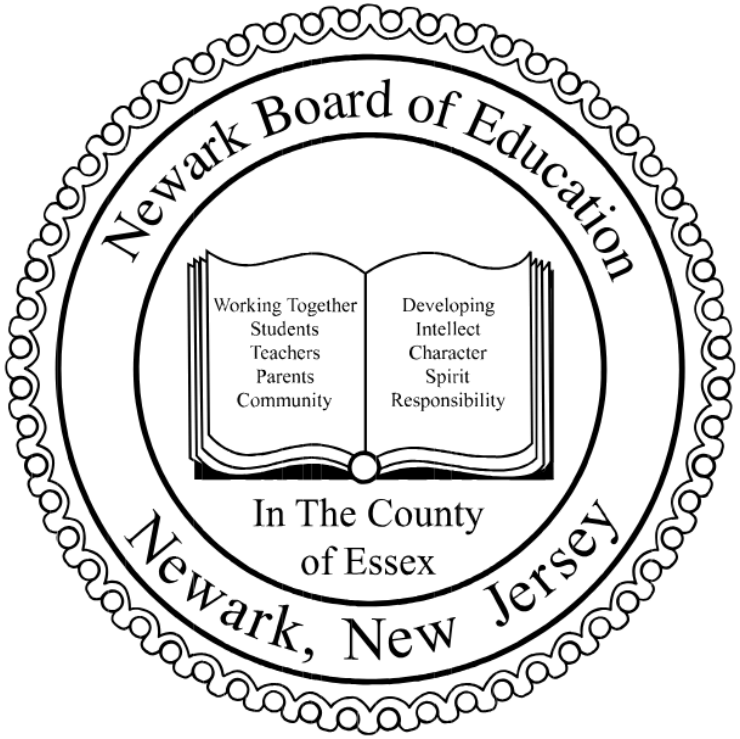

Kindergarten Mathematics Curriculum Guide

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Course Description

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; and(2) describing shapes and space. More learning time in Kindergarten should be devoted to numbers than to other topics.

Critical Area 1:
Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as $5 + 2 = 7$ and $7 – 2 = 5$. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.

Critical Area 2:
Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Parent Resources

Unit	Resources
1	K.1 Family Support Materials K.1 Family Support Materials (Spanish)
2	K.2 Family Support Materials K.2 Family Support Materials (Spanish)
3	K.3 Family Support Materials K.3 Family Support Materials (Spanish)
4	K.4 Family Support Materials K.4 Family Support Materials (Spanish)
5	K.5 Family Support Materials K.5 Family Support Materials (Spanish)
6	K.6 Family Support Materials K.6 Family Support Materials (Spanish)
7	K.7 Family Support Materials K.7 Family Support Materials (Spanish)
8	K.8 Family Support Materials K.8 Family Support Materials (Spanish)

Curriculum Map

STANDARD	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
COUNTING AND CARDINALITY- K.CC								
A. KNOW NUMBER NAMES AND THE COUNT SEQUENCE (MAJOR)								
1. Count to 100 by ones and by tens.	?	?	?	?	?	?	?	?
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).				?	?	?		?
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).		?	?	?		?	?	?
B. COUNT TO TELL THE NUMBER OF OBJECTS (MAJOR)								
4. Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand that each successive number name refers to a quantity that is one larger.	?	?	?	?		?	?	?
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.		?	?	?	?	?	?	?
C. COMPARE NUMBERS (MAJOR)								
6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Clarification: Include groups with up to ten objects.)		?	?				?	?

STANDARD	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
7. Compare two numbers between 1 and 10 presented as written numerals.		?					?	?
OPERATIONS AND ALGEBRAIC THINKING- K.OA								
A. UNDERSTAND ADDITION AS PUTTING TOGETHER AND ADDING TO, AND UNDERSTAND SUBTRACTION AS TAKING APART AND TAKING FROM (MAJOR)								
1. Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings , sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.				?	?	?	?	?
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.				?	?	?	?	?
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., $5 = 2 + 3$ and $5 = 4 + 1$).					?	?	?	?
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.					?	?	?	?
5. Demonstrate accuracy and efficiency for addition and subtraction within 5.					?	?	?	?

STANDARD	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
NUMBERS AND OPERATIONS IN BASE TEN- K.NBT								
A. WORK WITH NUMBERS 11-19 TO GAIN FOUNDATIONS FOR PLACE VALUE (MAJOR)								
1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., $18 = 10 + 8$); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.						?	?	?
MEASUREMENT- K.M								

STANDARD	UNIT 1	UNIT 2	UNIT 3	UNIT 4	UNIT 5	UNIT 6	UNIT 7	UNIT 8
A. DESCRIBE AND COMPARE MEASURABLE ATTRIBUTES (ADDITIONAL)								
1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.							?	
2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.			?				?	?
B. WORK WITH MONEY (ADDITIONAL)								
3. Understand that certain objects are coins and dollar bills and that coins and dollar bills represent money. Identify the values of all U.S. coins and the one-dollar bill.			?					
DATA LITERACY- K.DL								
A. CLASSIFY OBJECTS AND COUNT THE NUMBER OF OBJECTS IN EACH CATEGORY (SUPPORTING)								
1. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Clarification: Limit category counts to be less than or equal to 10)			?				?	?
GEOMETRY- K.G								
A. IDENTIFY AND DESCRIBE SHAPES (SQUARES, CIRCLES, TRIANGLES, RECTANGLES, HEXAGONS, CUBES, CONES, CYLINDERS, AND SPHERES) (ADDITIONAL)								
1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above, below, beside, in front of,* behind, and *next to*.			?				?	
2. Correctly name shapes regardless of their orientations or overall size.			?				?	?
3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").							?	
B. ANALYZE, COMPARE, CREATE, AND COMPOSE SHAPES (SUPPORTING)								

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).			?				?	
5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	?		?				?	?
6. Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"			?				?	?

Pacing Guide

UNIT		STANDARDS	PACING	2025-2026
QUARTER 1				
Building Thinking Classrooms in Mathematics **Non-Curricular Task**			1 day	September 2
Unit 1: Math In Our World	A: Explore Our Math Tools	K.G.B.5	7 days	September 3-12
	KINDERGARTEN ENTRY ASSESSMENT		1 day	September 10
	B: Recognize Quantities	K.CC.B.4	5 days	September 15-19
	C: Are There Enough?	K.CC.B.4	3 days	September 22-24
	D: Counting Collections	K.CC.A.1, K.CC.B.4	6 days	September 25 - October 2
	UNIT ASSESSMENT		1 day	October 3
Unit 2: Numbers 1-10	A: Count and Compare Groups of Objects	K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6	9 days	October 6-17
	B: Count and Compare Groups of Images	K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6	6 days	October 20-28
	C: Connect Quantities and Numbers	K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6	6 days	October 29- November 5
QUARTER 2				
Unit 2: Numbers 1-10	D: Compare Numbers	K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6, K.CC.C.7	9 days	November 11-24
	UNIT ASSESSMENT		1 day	November 25
Unit 3: Flat Shapes All	A: Exploring Shapes in Our Environment *Includes NJ Money Lesson 1	K.DL.A.1, K.CC.A.1, K.CC.A.3, K.CC.B.5, K.G.A.1, K.G.A.2, K.G.B.4, K.G.B.5, K.M.A.2, K.M.B.3	12 days	November 26 - December 15

Around Us	B: Making Shapes	K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6, K.G.A.1, K.G.A.2, K.G.B.6	7 days	December 16 - January 5
	UNIT ASSESSMENT		1 day	January 6
Unit 4: Understanding Addition and Subtraction	A: Count to Add and Subtract	K.CC.A.1, K.CC.B.4, K.CC.B.5, K.OA.A.1	6 days	January 7-14
	B: Represent and Solve Story Problems	K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.OA.A.1, K.OA.A.2	9 days	January 15-29
QUARTER 3				
Unit 4: Understanding Addition and Subtraction	C: Addition and Subtraction Expressions	K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4, K.OA.A.1, K.OA.A.2	8 days	January 30 - February 10
	UNIT ASSESSMENT		1 day	February 11
Unit 5: Composing and Decomposing Numbers to 10	A: Make and Break Apart Numbers to 9	K.CC.A.1, K.CC.A.2, K.OA.A.2, K.OA.A.3, K.OA.A.5	6 days	February 12-20
	B: More Types of Story Problems	K.CC.A.1, K.CC.A.2, K.OA.A.1, K.OA.A.2, K.OA.A.3,	6 days	February 23 - March 3
	C: Make and Break Apart 10	K.CC.B.5, K.OA.A.1, K.OA.A.3, K.OA.A.4	6 days	March 4-11
	UNIT ASSESSMENT		1 day	March 12
Unit 6: Numbers 0–20	A: Count Groups of 11-20 Objects	K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.5	5 days	March 13-19
	B: 10 Ones and Some More	K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.NBT.A.1, K.OA.A.1	7 days	March 23-31
	C: Count Groups of 11–20 Images	K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.NBT.A.1, K.OA.A.1, K.OA.A.4	4 days	April 1-14
	UNIT ASSESSMENT		1 day	April 15
QUARTER 4				
Unit 7: Solid Shapes All Around Us	A: Compose and Count with Flat Shapes	K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6, K.CC.C.7, K.G.B.5, K.G.B.6, K.NBT.A.1, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.4, K.OA.A.5	8 days	April 16-27
	B: Describe, Compare, and Create Solid Shapes	K.DL.A,1, K.CC.A.1, K.CC.B.5, K.G.A.1, K.G.A.2,	11 days	April 28 - May 12

		K.G.A.3, K.G.B.4, K.G.B.5, K.G.B.6, K.M.A.1, K.M.A.2, K.OA.A.5		
	UNIT ASSESSMENT		1 day	May 13
Unit 8: Putting It All Together	A: Counting and Comparing	K.DL.A.1, K.CC.A.1, K.CC.A.2, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6, K.CC.C.7, K.NBT.A.1, K.OA.A.2	5 days	May 14-20
	B: Math in Our School	K.CC.A.1, K.CC.A.3, K.CC.B.4, K.CC.B.5, K.CC.C.6, K.G.A.2, K.G.B.5, K.M.A.2, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.5	6 days	May 21-29
	C: Fluency within 5	K.DL.A.1, K.CC.A.2, K.CC.C.6, K.OA.A.2, K.OA.A.3, K.OA.A.5	7 days	June 1-9
	D: All About 10	K.CC.B.4, K.CC.B.5, K.NBT.A.1, K.OA.A.1, K.OA.A.2, K.OA.A.3, K.OA.A.4	8 days	June 10-23
	UNIT ASSESSMENT		1 day	June 12

Materials List

REUSABLE MATERIALS		
ITEM	**QUANTITY PER 30 STUDENTS**	**LESSONS**
Bags	81	
Brown Paper Bags	40	K.2.3, K.2.6, K.2.12, K.2.16
Beads	600	
Beans		
Clipboards	30	
Collections of Objects	At least 30 collections	K.1.12, K.1.13, K.1.14, K.1.15, K.1.16, K.1.17, K.2.16, K.2.5, K.2.14, K.5.10, K.5.11, K.5.13, K.5.14, K.5.15, K.6.1, K.6.2, K.6.3, K.6.4, K.7.7, K.7.8, K.7.9, K.7.10, K.7.11, K.7.12, K.7.13, K.7.14, K.7.15, K.7.16
Colored Pencils		K.1.9, K.2.20, K.2.3, K.2.12, K.2.22, K.3.5, K.3.8, K.3.9, K.3.11, K.5.2, K.6.1, K.6.6, K.6.11, K.6.13
Connecting Cubes	300	K.1.1, K.1.5, K.1.6, K.1.7, K.1.8, K.1.9, K.1.10, K.1.11, K.1.12, K.1.13, K.1.14, K.1.15, K.1.16, K.1.17, K.1.18, K.2.1, K.2.2, K.2.3, K.2.4, K.2.5, K.2.6, K.2.12, K.2.14, K.2.15, K.2.17, K.2.18, K.2.20, K.2.21, K.4.1, K.4.2, K.4.4, K.4.5, K.4.6, K.4.8, K.4.9, K.4.10, K.4.11, K.4.12, (K.4.13), K.4.14, K.4.16, K.4.17, (K.4.19), K.5.3, K.5.4, K.5.16, K.5.1, K.5.5, (K.5.6), K.5.7, K.5.8, K.5.9, K.5.10, K.5.11, K.5.13, K.5.14, K.5.15, K.6.1, K.6.3, K.6.4, K.6.6, K.6.12
Containers of Different Sizes	30	
Crayons		K.1.9, K.2.20, K.2.15, K.2.22, K.2.12, K.2.3, K.3.5, K.3.8, K.3.9, K.3.11, K.3.13, K.3.14, (K.4.19), K.4.8, K.4.15, K.5.2, K.5.3, K.5.4, K.5.5, K.5.13, K.6.1, K.6.6, K.6.11, K.6.13
Cups	30	K.2.2, K.2.3, K.2.4, K.5.1, K.5.2, K.5.3, K.5.4, K.5.10, K.5.11, k.5.12, K.5.14, K.5.15
Egg Cartons	30	K.1.14, (K.1.15), K.1.16, K.1.17
Erasers	24	K.1.10

Folders	15	
Geoblocks	4 sets	K.1.4, K.1.5, K.1.6, K.1.7, K.1.8, K.1.9, K.1.10, K.1.11, K.1.12, K.1.13, K.1.14, K.1.15, K.1.16, K.1.17, K.2.14, K.3.10, K.3.11, K.3.12, K.3.13, K.3.14, K.7.1, K.7.2, K.7.3, K.7.4, K.7.5, K.7.6, K.7.7, K.7.8, K.7.9, K.7.10, K.7.11, K.7.12, K.7.13, K.7.14, K.7.15, K.7.16
Ink Pad	**10**	
Markers		K.2.3, K.2.12, K.2.15, K.4.9, K.5.2, K.6.1, K.6.6, K.6.11, K.6.13
Pattern Blocks	900	K.1.2, K.1.5, K.1.6, K.1.7, K.1.8, K.1.9, K.1.10, K.1.11, K.1.12, K.1.13, K.1.14, K.1.15, K.1.16, K.1.17, K.2.1, K.2.2, K.2.3, K.2.14, K.3.10, K.3.11, K.3.12, K.3.13, K.4.1, K.5.2, K.5.3, K.6.5, K.7.1, K.7.2, K.7.3, K.7.4, K.7.5, K.7.6, K.7.7, K.7.8, K.7.9, K.7.10, K.7.11, K.7.12, K.7.13, K.7.14, K.7.15, K.7.16
Pencils	**64**	K.1.9, K.1.10, K.1.11
Picture Books	**At least 15**	K.1.6, K.1.7, K.1.8, K.1.9, K.1.10, K.1.11, K.1.12, K.1.13, K.1.14, K.1.15, K.1.16, K.3.1, K.3.3
Play Dough or Modeling Clay	**30 pieces**	K.3.7, K.7.7, K.7.8, K.7.9, K.7.10, K.7.11, K.7.12, K.7.13
Scissors	**30**	K.5.12, K.6.8
Sheet Protectors	**30**	K.2.11 (sheet protectors are optional)
Solid Shapes	**48 of each solid**	
Tools for Creating a Visual Display		
Two-color Counters	**300**	K.1.3, K.2.3, K.2.4, K.2.9, K.4.7, K.4.8, K.4.9, K.4.10, K.4.11, K.4.12, (K.4.13), K.4.15, (K.4.19), K.5.1, K.5.2, K.5.3, K.5.4, K.5.5, (K.5.6), K.5.7, K.5.8, K.5.9, K.5.10, K.5.11, k.5.12, K.5.14, K.5.15, K.6.1, K.6.2, K.6.3, K.6.4, K.6.5, K.6.6, K.6.7, K.6.8, K.6.9, K.6.10, K.6.11, K.6.12, K.6.13
CONSUMABLE MATERIALS		
ITEM	**QUANTITY PER 30 STUDENTS**	**LESSONS**
Card Stock	8 sheets	K.3.15
Chart Paper	40 sheets	K.1.14, K.1.15, K.1.16, K.2.7, K.2.10, K.2.20, K.2.14, K.2.15

Glue		K.3.14, K.5.12, K.6.8
Paint	1 large bottle	K.3.15
Paper	210 sheets	K.3.15
Paper Cups	8	
Paper Plates	8	K.3.15
Pipe Cleaners	60	
Plastic or Foil Tray	8	
Sticks	330	
Sticky Notes	90	K.2.16
Straws	120	K.3.7, K.3.9, (K.4.19)
String		K.3.9
Tape		K.3.15, K.6.8