

Mathematics

Grade Kindergarten

NJ DOE, NJSLA: In Kindergarten, instructional time should focus on two critical areas:

- (1) Representing and comparing whole numbers, initially with sets of objects
- (2) Describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

Unit	Time	Overview
<u>Unit 1</u> Position, Length, Height Sorting	24 days	In this Unit, daily practice with the counting sequence from 1 to 20 is provided through teacher modeling of tactile and kinesthetic activities (Rhyme and Count, Clap and Count, Pass and Count). Learning activities supporting the Focus standards foster precision with positional and measurement language. Students describe and compare physical attributes of objects and eventually sort objects by attributes to develop early data-organizational skills.
<u>Unit 2</u> Numbers to 5, Shapes	19 days	In this Unit, daily practice of counting and comparing numbers 0-5 is provided through tactile and kinesthetic activities. Rote counting ranges are from 1 to 40 by 1's and by 10's to 40. Students will: count, write and show numbers to 5, compare numbers and identify the number that is one more, identify three-dimensional shapes and compare weights of objects to determine lighter and heavier.
<u>Unit 3</u> Addition, Subtraction and Shapes	24 days	In this Unit, daily practice of counting and comparing numbers 0-5 is provided through teacher modeling of tactile and kinesthetic activities. Students will add and subtract numbers within 5, using fingers, manipulatives, and drawings. Students are introduced to the addition and subtraction symbols to use in expressions. There is instruction on 2-D shapes, describing their attributes and identifying no matter the size or orientation.
<u>Unit 4</u> Numbers to 10, Shapes	29 days	In this unit, students identify number partners and compose and decompose numbers to 10, using fingers, 10 frames, manipulatives, number paths, and drawings. Students use the equal symbol in equations and explore the idea of equality. Students define attributes of shapes, compare shapes using defining attributes, and eventually compose new shapes from existing shapes reinforcing the concept of composing numbers. Students identify different number partners to create 10.
<u>Unit 5</u> Numbers to 100	24 days	In this Unit, students extend their understanding of numbers to the teens and associate teen numbers with the corresponding quantities. Students count in the teens by counting groups of ten and then counting on to find the remaining number, supported by the use of mathematical models and tools. Daily counting routines help students to solidify their sequencing of multiples of ten. Students continue their work with composing and decomposing the values 6, 7, 8 and 9, and find different ways to represent these numbers.
<u>Unit 6</u> Addition, Subtraction Within 10	24 days	In this unit, students learn to choose how and when to use math tools to visualize quantities and they build a benchmark for 10. Students use number paths to informally visualize the counting-on strategy. Students use concrete manipulatives to reinforce understanding quantities and relationships for number totals. To build number sense with subtraction students build models of the start quantity and remove the second quantity. Students develop reasoning and justifying skills by creating their own number story problems and make meaning of number story problems of their peers. Students translate the words in a story problem to pictures to contextualize problem-solving.
<u>Unit 7</u> Teen Numbers	19 days	In this Unit, daily practice of counting by tens to 100, by ones to 100, counting on from any number, and counting backward from 10 to one, helps students to gain fluency with counting. Students continue to compose and decompose teen numbers. Students build upon their understanding that teen numbers can always be composed of 10 ones and some more (1 and use pictures and addition expressions to represent the teen number. Students write equations demonstrating their knowledge that teen numbers are composed of ten ones and some more ones. Students will refine their understanding of flat and solid shapes first by sorting shapes according to attributes and then they extend their understanding of how flat and solid shapes represent objects in their environment.

Content Continuum

Kindergarten Mathematics

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.

They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes. *NJSLS*

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 $7 - 2 = 5$. 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. *NJSLS*

INSTRUCTIONAL / SUPPLEMENTAL MATERIALS

[Illustrative Mathematics](#)

KEY FEATURES OF REVISION

- Incorporates 2023 NJDOE Math Standards Updates inclusive of Climate Change Guidance
- Intentional Focus on Math Discourse and Academic and Math Vocabulary
- Extensive inclusion of Prerequisite Skills
- Incorporation of Personalized Instruction - My Path lessons

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