

Board Approval Date: 8/25/2020

Course Title: Kindergarten Math

In Kindergarten, instruction focuses on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects and (2) describing shapes and space. Grade appropriate topics addressing the five domains, Counting & Cardinality, Operations & Algebraic Thinking, Numbers & Operations in Base 10, Measurement & Data, and Geometry.

Course Sequence & Pacing

Estimated Number of Weeks	Marking Period 1 Unit 1: Connecting Counting to Cardinality		
	1	Unit 1: Numbers 0 - 5	6
2	Unit 1: Numbers 0 - 5	7	Unit 1: Numbers 6-10
3	Unit 1: Numbers 0 - 5	8	Unit 1: Compare Numbers 6-10
4	Unit 1: Compare Numbers 0 - 5	9	Unit 1: Compare Numbers 6-10
5	Unit 1: Compare Numbers 0 - 5	10	Unit 1: Assess, Reteach, Extend
Estimated Number of Weeks	Marking Period 2 Unit 2: Counting Data, Addition & Subtraction		
	11	Unit 2: Classify & Count Data	16
12	Unit 2: Classify & Count Data	17	Unit 2: More Addition & Subtraction
13	Unit 2: Understand Addition	18	Unit 2: More Addition & Subtraction
14	Unit 2: Understand Addition	19	Unit 2: More Addition & Subtraction
15	Unit 2: Understand Subtraction	20	Unit 2: Assess, Reteach, Extend

Estimated Number of Weeks	Marking Period 3 Unit 3: Foundations of Place Value		
	21	Unit 3: Count Numbers to 20	26
22	Unit 3: Count Numbers to 20	27	Unit 3: Count Numbers to 100
23	Unit 3: Compose & Decompose Numbers 11-19	28	Unit 1-3 Assessment
24	Unit 3: Compose & Decompose Numbers 11-19	29	Unit 4: Identify & Describe Shapes
25	Unit 3: Compose & Decompose Numbers 11-19	30	Unit 4: Identify & Describe Shapes
Estimated Number of Weeks	Marking Period 4 Unit 4: Identification, Analysis & Creation of Geometric Shapes		
	31	Unit 4: Analyze, Compare & Create Shapes	36
32	Unit 4: Analyze, Compare & Create Shapes	37	Step Up to 1st Grade
33	Unit 4: Describe & Compare Measurable Attributes	38	Step Up to 1st Grade
34	Unit 4: Describe & Compare Measurable Attributes	39	Step Up to 1st Grade
35	EOY Assessment - Unit 1-4	40	Assess/Revisit/Enrich

Overarching Goals

NJSLS Mathematical Practices (*addressed throughout each unit - specific practices are noted in the Stage 3 Learning Plan*)

- K.MP.1. Make sense of problems and persevere in solving them.
- K.MP.2. Reason abstractly and quantitatively.
- K.MP.3. Construct viable arguments and critique the reasoning of others.
- K.MP.4. Model with mathematics.
- K.MP.5. Use appropriate tools strategically
- K.MP.6. Attend to precision.
- K.MP.7. Look for and make use of structure.
- K.MP.8. Look for and express regularity in repeated reasoning

Unit 1: Connecting Counting to Cardinality

Stage 1 Desired Results

Unit 1: Connecting Counting to Cardinality

Unit Summary: In this unit, students will learn to count groups of objects and write the amount. Students will compare groups of objects as well as their corresponding numbers.

Unit Learning Targets

NJSLS Standards:

- K.CC.A.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)
- K.CC.B.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.
- K.CC.B.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.
- K.CC.C.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.
- K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.
- K.OA.A.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 $5 = 4 + 1$)
- K.CC.A.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)

Interdisciplinary Connections

Career Readiness, Life Literacies, & Key Skills :

- CRP2. Apply appropriate academic and technical skills.

- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP11. Use technology to enhance productivity

Technology:

- 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. Select and use applications effectively and productively.
- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).

Interdisciplinary Connections:

- RI.K.10. Actively engage in group reading activities with purpose and understanding.
- RL.K.4. Ask and answer questions about unknown words in a text
- RI.K.1. With prompting and support, ask and answer questions about key details in a text.
- W.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Unit Essential Questions:

- How can numbers from 0 to 5 be counted, read, and written?
- How can numbers from 0 to 5 be compared and ordered?
- How does counting tell how many?
- How can objects help with counting?

Unit Enduring Understandings:

- Counting tells how many are in a group, regardless of their arrangement or the order in which they were counted.
- The last number said when counting a group is the total.
- Counting is cumulative.

Students will know:

- count
- one, two, three, number, four, five, six, seven, eight, nine, ten
- none, zero
- part, whole

Students will be able to:

- Identify number names 0-10
- Count sequences 0-10
- Count to tell the number of objects 0-10
- Compare and order the numbers from 0 - 10.

<ul style="list-style-type: none"> • order, compare, group • equal, same number as, greater than, less than • model 	<ul style="list-style-type: none"> • Read and Write Numbers 0-10
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Stage 2 Assessment Evidence

<p>Summative Assessments:</p> <ul style="list-style-type: none"> • Topic 1-4 Performance Assessments - enVisionmath2.0 • End of Topic Assessments - enVisionmath 2.0
<p>Formative Assessments:</p> <ul style="list-style-type: none"> • Individual Lesson Quick Checks • Teacher observation & conferring • iReady • Khan Academy
<p>Common Benchmark Assessments:</p> <ul style="list-style-type: none"> • iReady Beginning of Year Diagnostic
<p>Alternative Assessments:</p>

Stage 3 Learning Plan

Standard	Skill	Learning Activities & Differentiation	Timeframe (Days or Weeks)
		<i>Topics 1-4</i>	<i>Days</i>
K.CC.A.3 K.CC.B.4a,b,c K.CC.B.5 K.OA.A.3 K.MP.1 - 8	<ul style="list-style-type: none"> • Count 1, 2 & 3 objects. • Count groups 1, 2, 3 in different arrangements. • Read & write the numbers 1-3. • Count 4 & 5 objects 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes 	11 + 2 (intro & assessment)

	<ul style="list-style-type: none"> ● Count groups of 4 & 5 objects in different ways. ● Read & write the numbers 4-5. ● Use 0 to tell when there are no objects. ● Read and write the number 0. ● Show ways to make 5. ● Count up to the number 5. ● Use math to explain what you know about counting. 	<ul style="list-style-type: none"> ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	
<p>K.CC.C.6 K.CC.C.7 K.MP. 1- 8</p>	<ul style="list-style-type: none"> ● Compare groups to see whether they are equal by matching ● Tell whether one group is greater in number than another group. ● Tell whether one group is less in number than another group. ● Compare groups by counting. ● Compare numbers ● Use objects, drawings and numbers to compare numbers and solve problems. 	<p>Lesson Introduction - 80 minutes 1 Lesson Per Day</p> <ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	<p>6 + 2 (intro & assessment)</p>
<p>K.CC.A.3 K.CC.B.4a-b K.CC.B.5</p>	<ul style="list-style-type: none"> ● Count to the numbers 6 & 7. ● Read & write the numbers 6 & 7. 	<p>Lesson Introduction - 80 minutes 1 Lesson Per Day</p>	<p>8</p>

<p>K.CC.B.4 K.OA.A.3 K.MP. 1- 8</p>	<ul style="list-style-type: none"> ● Count to the numbers 8 & 9. ● Read & write the numbers 8 & 9. ● Count to the number 10. ● Read and write the number 10. ● Show how to make a group of 10. ● Use counting patterns to solve a problem. 	<ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	<p style="text-align: center;">+</p> <p style="text-align: center;">2 (intro & assessment)</p>
<p>K.CC.A.2 K.CC.B.4c K.CC.C.6 K.CC.C.7 K.MP. 1- 8</p>	<ul style="list-style-type: none"> ● Compare groups of up to 10 numbers. ● Compare groups of numbers using numerals up to 10. ● Compare groups of numbers by counting. ● Compare two numbers. ● Count groups of numbers to 10. ● Repeat something from one problem to help solve another problem. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	<p style="text-align: center;">8</p> <p style="text-align: center;">+</p> <p style="text-align: center;">2 (intro & assessment)</p>

**Core Instructional & Supplemental Materials
(including various levels of texts)**

<i>Texts/Materials</i>	<i>Notes</i>
enVisionmath2.0 Common Core Grade K	
iPad, iReady	
counters (2 color), blocks, connecting cubes, craft sticks	
basket, container	
colored pencils, crayons,	
ten frames	
number cards 0-10	
“Math” Story Books for Read-Alouds	

**Accommodations and Modifications:
Students with Disabilities, English Language Learners,
Students at Risk of Failure, Students with 504s, Gifted & Talented Students**

Specific Strategies and Practices that Support Students with Disabilities:

- Provide additional manipulatives to support instruction
- Allow for alternative strategies to solve algorithms or tasks
- Provide the steps needed to complete the task
- Model frequently
- Use visuals to demonstrate/model the processes
- Visual Animation Plus
- Reteaching opportunities if applicable through differentiated centers.

Specific Strategies and Practices that Support Gifted & Talented Students:

- Problem based learning
- Pre-Assess to condense curriculum in order to do more authentic problem solving/projects
- Differentiated centers with extension activities

Specific Strategies and Practices that Support English Language Learners:

- Visual learning bridge
- Visual learning Animation Plus
- Personal glossary
- Text-to-speech/ Simplified, verbal instructions
- Extended time

Unit 2 : Counting Data, Addition & Subtraction

Stage 1 Desired Results

Unit 2: Counting Data, Addition & Subtraction

Unit Summary: In this unit, students will classify up to 10 objects into two categories. The students will count the number of objects in each of those categories and then sort the categories by count. In addition to sorting, the students will be able to explain why they sorted the objects into those categories. In addition, students will focus on deepening their understanding of addition as “put together” and “add to”, and subtraction as “take apart” and “take from”. Students will learn to represent and solve addition and subtraction word problems, decompose numbers through 10, and fluently add and subtract within 5.

Unit Learning Targets

NJSLS Standards:

- K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- K.CC.B.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.
- K.CC.C.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.
- K.CC.C.7 Compare two numbers between 1 and 10 presented as written numerals.
- K.OA.A.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.
- K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- K.OA.A.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 $5 = 4 + 1$).
- K.OA.A.5 Demonstrate fluency for addition and subtraction within 5
- K.CC.A.2 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).

Interdisciplinary Connections

Career Readiness, Life Literacies, & Key Skills :

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP11. Use technology to enhance productivity

Technology:

- 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. Select and use applications effectively and productively.
- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.

Interdisciplinary Connections:

- RI.K.10. Actively engage in group reading activities with purpose and understanding.
- RL.K.4. Ask and answer questions about unknown words in a text
- RI.K.1. With prompting and support, ask and answer questions about key details in a text.
- W.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Unit Essential Questions:

- How can classifying data help answer questions?
- How can representing taking apart and taking from in different ways help you learn about subtraction?
- How can decomposing numbers in more than one way help you learn about addition and subtraction?

Unit Enduring Understandings:

- Data can be sorted and compared in a variety of ways. Then the groups can be counted and compared.
- Addition and subtraction can be shown in different ways, such as objects, fingers, mental images, drawings, sounds, verbal explanations, expressions or equations.
- Objects, drawings, counting, equations and patterns can be used to help solve addition and subtraction problems which involve adding to or putting together for + and taking apart or taking from for -.

	<ul style="list-style-type: none"> ● Addition and subtraction facts have an inverse relationship. ● For any number 1-9 there is another number to make 10. ● Good math thinkers know how to think about words and numbers to solve problems.
<p>Students will know:</p> <ul style="list-style-type: none"> ● category, classify, chart, tally mark ● in all, join, addition sentence, add, plus sign (+), ● equal sign (=), equation, ● sum, left, separate, subtraction sentence, take away, minus sign (-), subtract, difference, break apart, operation, 	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Students will be able to classify objects and count the number of objects in each category. ● Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. ● Represent and explain addition and subtraction problems with equations. ● Use tools to add and subtract numbers. ● Solve addition and subtraction word problems. ● Fluently add and subtract to 5 ● Decompose and represents numbers 6-10

Stage 2 Assessment Evidence

Summative Assessments:

- End of Topic Performance Assessments - enVisionmath2.0
- End of Topic Assessments - enVisionmath 2.0
- Fluency Assessment (Addition & Subtraction 1-5)

Formative Assessments:

- Individual Lesson Quick Checks
- Teacher observation & conferring
- iReady
- Khan Academy

Common Benchmark Assessments:

- iReady Mid-Year Assessment

Alternative Assessments:

Stage 3 Learning Plan

<i>Standard</i>	<i>Skill</i>	<i>Learning Activities & Differentiation</i>	<i>Timeframe (Days or Weeks)</i>
		<i>Topics 5-8</i>	<i>Days</i>
K.MD.B.3 K.CC.6 K.CC.7 K.MP.1-3, 6-8	<ul style="list-style-type: none"> • Classify objects into categories and tell why they are in each category. • Count how many objects are in different categories. • Use counting to compare how many objects are in different categories. • Tell if the way objects have been sorted makes sense. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	4 + 2 (intro & assessment)
K.OA.A.1 K.OA.A.2 K.OA.A.5 K.CC.A.2 K.MP.1 - 8	<ul style="list-style-type: none"> • Show numbers in many ways. • Represent addition as adding to a number. • Represent addition as putting two or more numbers together. • Add numbers together. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes 	10 + 2 (intro & assessment)

	<ul style="list-style-type: none"> • Write an equation to show addition. • Use the + sign and = sign in an equation. • Solve word problems using addition. • Use equations to represent addition. • Use patterns to add numbers together. • Model adding different numbers together by drawing, counting or writing equations. 	<ul style="list-style-type: none"> • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	
<p>K.CC.A.2 K.OA.A.1 K.OA.A.2 K.OA.A.5 K.MP.1-8</p>	<ul style="list-style-type: none"> • Show numbers in many ways. • Take apart a number and tell the parts. • Represent subtraction as taking a number apart. • Separate numbers using the - sign. • Separate numbers using the = sign. • Use the minus sign in equations. • Solve subtraction word problems by finding the difference of 2 numbers. • Find patterns in subtraction equations. • Use tools to subtract numbers. 	<p>Lesson Introduction - 80 minutes 1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	<p>9 + 2 (intro & assessment)</p>

<p>K.OA.A.1 K.OA.A.3 K.OA.A.5 K.OA.A.2 K.OA.A.4 K.MP.1 - 8</p>	<ul style="list-style-type: none"> • Write equations with parts of the number up to 5. • Solve related addition and subtraction equations. • Reason about numbers and operations. • Write addition and subtraction equations within 5 and remember them. • Write equations to show the parts of 6 & 7. • Write equations to show the parts of 8 & 9. • Write equations to show the parts of 10. • Write an addition equation to show a word problem. • Find number patterns for 10. • Find the missing parts to make 10. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	<p>9 + 2 (intro & assessment)</p>
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**Core Instructional & Supplemental Materials
(including various levels of texts)**

<i>Texts/Materials</i>	<i>Notes</i>
enVisionmath2.0 Common Core Grade K	
iPad, iReady	
counters (2 color), blocks, connecting cubes, multi color cubes,	
Part-Part Mat	
colored pencils, crayons, markers	
ten frames	
number cards 0-10, chart paper, craft sticks	

sticky notes, index cards	
“Math” Story Books for Read-Alouds	
sand tray	

**Accommodations and Modifications:
Students with Disabilities, English Language Learners,
Students at Risk of Failure, Students with 504s, Gifted & Talented Students**

Specific Strategies and Practices that Support Students with Disabilities:

- Provide additional manipulatives to support instruction
- Allow for alternative strategies to solve algorithms or tasks
- Provide the steps needed to complete the task
- Model frequently
- Use visuals to demonstrate/model the processes
- Visual Animation Plus
- Reteaching opportunities if applicable through differentiated centers.

Specific Strategies and Practices that Support Gifted & Talented Students:

- Problem based learning
- Pre-Assess to condense curriculum in order to do more authentic problem solving/projects
- Differentiated centers with extension activities

Specific Strategies and Practices that Support English Language Learners:

- Develop basic vocabulary
- Demonstrate listening comprehension by retelling
- Use prior experience to understand meanings
- Visual learning bridge
- Visual learning Animation Plus
- Personal glossary
- Text-to-speech
- Extended time
- Simplified / verbal instructions

Unit 3 : Foundations of Place Value

Stage 1 Desired Results

Unit 3: Foundations of Place Value

Unit Summary: In this unit, students will continue to count in sequence with a focus on numbers 11 to 20 while introducing the concept of place value by focusing on the composition and decomposition of numbers 11 to 19 into one group of 10 ones and the remaining ones. Students will continue to focus on number names, extending and counting to 100 by 1s and 10s, beginning with any number.

Unit Learning Targets

NJSLS Standards:

- K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.A.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).
- K.CC.B.4c Understand that each successive number name refers to a quantity that is one larger.
- K.CC.B.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.
- K.NBT.A.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.
- K.CC.A.1 Count to 100 by ones and by tens.
- K.CC.A.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

Interdisciplinary Connections

Career Readiness, Life Literacies, & Key Skills :

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP11. Use technology to enhance productivity.

Technology:

- 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. Select and use applications effectively and productively.
- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.

Interdisciplinary Connections:

- RI.K.10. Actively engage in group reading activities with purpose and understanding.
- RL.K.4. Ask and answer questions about unknown words in a text
- RI.K.1. With prompting and support, ask and answer questions about key details in a text.
- W.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Unit Essential Questions:

- How can numbers to 20 be counted, read, written, and pictured to tell how many?
- How can composing and decomposing numbers from 11 to 19 into ten ones and some further ones help you understand place value?
- How can numbers to 100 be counted using a hundred chart?

Unit Enduring Understandings:

- There is a unique symbol that goes with each number and word.
- Numbers become greater when you count on.
- Numbers from 11-19 can be represented as the sum of 10 and some more.
- Numbers from 11-19 can be decomposed as the sum 10 and some more.
- Counting patterns can be seen on a number chart in both the rows and the columns.
- Good math thinkers know how to think about words and numbers to solve problems.

Students will know:

- eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty
- row, column, ones, pattern, tens

Students will be able to:

- Know the number names, the count sequence, and count to tell the number of objects to 20.

<ul style="list-style-type: none"> decade, hundred chart 	<ul style="list-style-type: none"> Work with numbers 11-19 to gain foundations for place value. understand subtraction as taking apart and taking from. Know number names and the count sequence. Solve addition and subtraction word problems. Fluently add and subtract to 5 Decompose and represents numbers 6-10
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Stage 2 Assessment Evidence

<p>Summative Assessments:</p> <ul style="list-style-type: none"> End of Topic Performance Assessments - enVisionmath2.0 End of Topic Assessments - enVisionmath 2.0 Cumulative Assessment Units 1-3

<p>Formative Assessments:</p> <ul style="list-style-type: none"> Individual Lesson Quick Checks Teacher observation & conferring iReady Khan Academy

<p>Common Benchmark Assessments:</p>

<p>Alternative Assessments:</p>
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Stage 3 Learning Plan

<i>Standard</i>	<i>Skill</i>	<i>Learning Activities & Differentiation</i>	<i>Timeframe (Days or Weeks)</i>
		<i>Topics 9-11</i>	<i>Days</i>
K.CC.A.3 K.CC.B.5	<ul style="list-style-type: none"> Count and write the numbers 11 & 12. 	Lesson Introduction - 80 minutes	7

<p>K.CC.A.2 K.MP.1-8</p>	<ul style="list-style-type: none"> ● Count and write the numbers 13-15. ● Count and write the numbers 16 & 17. ● Count and write the numbers 18-20. ● Count forward from any number to a number within 20. ● Count to find out how many are in a group. ● Use reasoning to count and write numbers to the number 20. 	<p>1 Lesson Per Day</p> <ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	<p>+ 2 (intro & assessment)</p>
<p>K.NBT.A.1 K.MP.1-8</p>	<ul style="list-style-type: none"> ● Use drawings and equations to make the numbers 11, 12, & 13. ● Use drawings and equations to make the numbers 14, 15, & 16. ● Use drawings and equations to make the numbers 17, 18, & 19. ● Find the parts of the numbers 11, 12 & 13. ● Find the parts of the numbers 14, 15 & 16. ● Find the parts of the numbers 17, 18 & 19. ● Use patterns to make and find the parts of the numbers to 19. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced ● Daily Common Core Review/iReady - 15 minutes (3 times per week) ● Assign Homework/Transition - 5 minutes 	<p>7 + 2 (intro & assessment)</p>

<p>K.CC.A.1 K.CC.A.2 K.MP.1-8</p>	<ul style="list-style-type: none"> • Use patterns to count to 30. • Use patterns to count to 50. • Skip count by 10s to 100. • Count to the number 100 by using 10s and 1s. • Count forward from any number to 100 by ones. • Count by 10s and 1s from any number to 100. • Count on from any number using 10s and 1s. 	<p>Lesson Introduction - 80 minutes</p> <p>1 Lesson Per Day</p> <ul style="list-style-type: none"> • Solve & Share/ Visual Learning - 15-20 minutes • Guided Practice & Independent Practice - Quick Check - 15-20 minutes • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	<p>7 + 2 (intro & assessment)</p>
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**Core Instructional & Supplemental Materials
(including various levels of texts)**

<i>Texts/Materials</i>	<i>Notes</i>
enVisionmath2.0 Common Core Grade K	
iPad, iReady	
counters (2 color), blocks, connecting cubes, multi color cubes, craft sticks	
clay, cotton balls, paper clips, glue, sand tray	
colored pencils, crayons, markers	
ten frames, double ten frames, hundreds chart	
number cards 0-10, chart paper, sticky notes, index cards	
"Math" Story Books for Read-Alouds	

**Accommodations and Modifications:
Students with Disabilities, English Language Learners,
Students at Risk of Failure, Students with 504s, Gifted & Talented Students**

Specific Strategies and Practices that Support Students with Disabilities:

- Provide additional manipulatives to support instruction
- Allow for alternative strategies to solve algorithms or tasks
- Provide the steps needed to complete the task
- Model frequently
- Use visuals to demonstrate/model the processes
- Visual Animation Plus
- Reteaching opportunities if applicable through differentiated centers.

Specific Strategies and Practices that Support Gifted & Talented Students:

- Problem based learning
- Pre-Assess to condense curriculum in order to do more authentic problem solving/projects
- Differentiated centers with extension activities

Specific Strategies and Practices that Support English Language Learners:

- Use strategic learning techniques, drawings and illustrations.
- Express opinions in sentences.
- Use visual support to confirm understanding.
- Give information using keywords.
- Visual learning bridge
- Visual learning Animation Plus
- Personal glossary
- Text-to-speech
- Extended time
- Simplified / verbal instructions

Unit 4: Identification, Analysis & Creation of Geometric Shapes

Stage 1 Desired Results

Unit 4: Identification, Analysis & Creation of Geometric Shapes

Unit Summary: In this unit, students will begin exploring geometric shapes by identifying the names of the shapes, recognizing the difference between two and three-dimensional, and proximity to the relative position to their environment. Students will analyze and compare attributes of shapes, such as size and orientation. Students will be introduced to measurement by exploring length, height, capacity, and weight. Students will describe objects by the measurable attribute and that objects can have more than one measurable attribute.

Unit Learning Targets

NJSLS Standards:

- K.G.A.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.
- K.G.A.2 Correctly name shapes regardless of their orientations or overall size.
- K.G.A.3 Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
- K.G.B.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).
- K.G.B.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- K.G.B.6 Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?”

Interdisciplinary Connections

Career Readiness, Life Literacies, & Key Skills :

- CRP2. Apply appropriate academic and technical skills.
- CRP4. Communicate clearly and effectively and with reason.
- CRP6. Demonstrate creativity and innovation.
- CRP11. Use technology to enhance productivity

Technology:

- 8.1.2.A.1 Identify the basic features of a digital device and explain its purpose. Select and use applications effectively and productively.

- 8.1.2.A.4 Demonstrate developmentally appropriate navigation skills in virtual environments (i.e. games, museums).
- 8.1.2.E.1 Use digital tools and online resources to explore a problem or issue.

Interdisciplinary Connections:

- RL.K.4. Ask and answer questions about unknown words in a text
- RI.K.10. Actively engage in group reading activities with purpose and understanding.
- RI.K.1. With prompting and support, ask and answer questions about key details in a text.
- W.K.2. Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
- SL.K.3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.

Unit Essential Questions:

- How can solid figures be named, described, compared, and composed?
- How can objects be compared by length, height, capacity, and weight?

Unit Enduring Understandings:

- Objects have shapes, they can be flat or solid. Many everyday objects approximate shapes that we learn about.
- Shapes can be described by their characteristics or their position in the environment.
- Objects can be compared by length, weight or capacity.
- Good math thinkers are careful about what they write and say so their ideas about math are clear. .

Students will know:

- sort
- two-dimensional shape, three-dimensional
- circle, hexagon, cone, cube, cylinder, sphere
- side, triangle, vertex, vertices, rectangle, square
- above, behind, below, beside, in front of, next to
- roll, slide, stack, flat surface

Students will be able to:

- Identify and describe shapes
- Analyze, compare, create, and compose shapes
- Describe and compare measurable attribute

Stage 2 Assessment Evidence

Summative Assessments:

- End of Topic Performance Assessments - enVisionmath2.0
- End of Topic Assessments - enVisionmath 2.0
- Cumulative Assessment Units 1-4

Formative Assessments:

- Individual Lesson Quick Checks
- Teacher observation & conferring
- iReady
- Khan Academy

Common Benchmark Assessments:

- iReady EOY

Alternative Assessments:

Stage 3 Learning Plan

<i>Standard</i>	<i>Skill</i>	<i>Learning Activities & Differentiation</i>	<i>Timeframe (Days or Weeks)</i>
		<i>Topic 12-14</i>	<i>Days</i>
K.G.A.1 K.G.A.2 K.G.A.3 K.G.B.4 K.MP.1- 8	<ul style="list-style-type: none"> ● Name shapes as flat or solid.. ● Identify and describe circles and triangles. ● Identify and describe squares and other rectangles. ● Describe and identify hexagons. 	Lesson Introduction - 80 minutes 1 Lesson Per Day <ul style="list-style-type: none"> ● Solve & Share/ Visual Learning - 15-20 minutes ● Guided Practice & Independent Practice - Quick Check - 15-20 minutes ● Differentiated Centers (based on Independent Practice) - 15 -20 minutes 	8 + 2 (intro & assessment)

	<ul style="list-style-type: none"> Describe and identify solid figures. Describe shapes in the environment. Describe the position of shapes in the environment. Solve problems by describing the position of shapes in the environment. 	<ul style="list-style-type: none"> Intervention/Reteaching On Grade Level Advanced Daily Common Core Review/iReady - 15 minutes (3 times per week) Assign Homework/Transition - 5 minutes 	
<p>K.G.A.3 K.G.B.4 K.G.B.5 K.G.B.6 K.MP.1- 8</p>	<ul style="list-style-type: none"> Analyze & compare 2-dimensional shapes. Analyze & compare 3-dimensional shapes. Analyze & compare 2-dimensional & 3-dimensional shapes. Analyze & compare & make 2-dimensional & 3-dimensional shapes using math. Make 2-d shapes using other 2-d shapes. . Build 2-d shapes using given attributes. Use materials to build 3-d shapes. 	<p>Lesson Introduction - 80 minutes 1 Lesson Per Day</p> <ul style="list-style-type: none"> Solve & Share/ Visual Learning - 15-20 minutes Guided Practice & Independent Practice - Quick Check - 15-20 minutes Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> Intervention/Reteaching On Grade Level Advanced Daily Common Core Review/iReady - 15 minutes (3 times per week) Assign Homework/Transition - 5 minutes 	<p>7 + 2 (intro & assessment)</p>
<p>K.MD.A.1 K.MD.A.2 K.MP.1 - 8</p>	<ul style="list-style-type: none"> Compare objects by length & height. Compare objects by capacity. Compare objects by weight. Use attributes to describe different objects. . 	<p>Lesson Introduction - 80 minutes 1 Lesson Per Day</p> <ul style="list-style-type: none"> Solve & Share/ Visual Learning - 15-20 minutes 	<p>6 + 2</p>

	<ul style="list-style-type: none"> • Use words to describe how an object can be measured. • Solve math problems about objects with measurable attributes using precision. 	<ul style="list-style-type: none"> • Guided Practice & Independent Practice - Quick Check - 15-20 minutes • Differentiated Centers (based on Independent Practice) - 15 -20 minutes <ul style="list-style-type: none"> ○ Intervention/Reteaching ○ On Grade Level ○ Advanced • Daily Common Core Review/iReady - 15 minutes (3 times per week) • Assign Homework/Transition - 5 minutes 	(intro & assessment)
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attribute blocks	
colored pencils, crayons, markers	
2-d & 3-d shapes	
number cards 0-10, chart paper, sticky notes, index cards, masking tape	
"Math" Story Books for Read-Alouds	

**Accommodations and Modifications:
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- Problem based learning
- Pre-Assess to condense curriculum in order to do more authentic problem solving/projects
- Differentiated centers with extension activities

Specific Strategies and Practices that Support English Language Learners:

- Develop basic (math) sight vocabulary.
- Speak using content area vocabulary in context.
- Demonstrate comprehension by retelling information.
- Use strategic learning techniques, drawings and illustrations.
- Use contextual support to confirm understanding.
- Use visual support to confirm understanding.
- Ask for and give information using keywords.
- Visual learning bridge
- Visual learning Animation Plus
- Personal glossary
- Text-to-speech
- Extended time
- Simplified / verbal instructions