Unit 1
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## Unit 1

| Subject: Mathematics | Grade: K | Unit Name: Position, Length, Height, and Sorting |
| :---: | :---: | :---: |
| Total Number of Lessons: 4 | Unit Time Frame (days): 24 |  |
| NJSLS <br> K.G.A.1; K.MD.A.1; K.MD.A.2; K.MD.B.3; K.G.A.1; K.MD.B. 3 |  |  |
| Students will be able to independently use their learning to: <br> - Describe where an object is. <br> - Describe and compare attributes of objects. <br> - Directly compare the lengths or heights of two objects to identify which is longer or taller and which is shorter. <br> - Count and sort objects into categories. <br> - Describe the relative positions of objects. |  |  |
| Understandings: <br> - Objects can be defined and sorted by shape and other attributes. <br> - Objects can be described by position. |  |  |

## Performance Tasks:

- 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.
- Describe measurable attributes of objects, such as length or weight.
- Describe several measurable attributes of a single object. 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. See Unit 1 Overview for developing and applied standards.
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. See Unit 1 Overview for developing and applied standards.
- 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.
- Sort objects into categories and describe the categories. Count the number of objects in each category. Sort categories by the number of objects in each category.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

Grade K Unit 1 Math

## Interdisciplinary Connections:

Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)

Accommodations:

- CTSD accommodations


## Unit 2

| Subject: Math | Grade: K | Unit Name: Numbers to 5, Shapes and Weight |
| :--- | :--- | :--- |
| Total Number of Lessons: 3 | Unit Time Frame (days): 19 |  |
| NJSLS <br> K.CC.A.3; K.CC.B.4; K.CC.B.5; K.CC.B.4; K.CC.C.6; K.CC.C.7; K.MD.A.1; K.MD.A.2; K.G.A.1; K.G.A.2; K.G.B.4; K.CC.A.3; K.CC.B.4a; K.CC.B.4b; <br> K.CC.B.5; K.CC.C.6; K.MD.B.3 |  |  |

## Students will be able to independently use their learning to:

- Count up to 5 objects and show how many using a number.
- Write or use materials to form numbers.
- Compare groups of objects and numbers up to 5
- Recognize that each counting number is one more than the last.
- Name solid shapes and describe their attributes.
- Compare weights of objects using heavy/heavier and light/lighter.


## Understandings:

Objects can be counted and represented with a number.
Objects can be described, identified and compared using a variety of attributes.

## Performance Tasks:

- Represent a number of objects with a written numeral 0-20.
- 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.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.
- Compare two numbers between 1 and 10 presented as written numerals. See Unit 2 Overview for developing and applied standards.
- Describe measurable attributes of objects, such as length or weight.
- Describe several measurable attributes of a single object.
- 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.
- Describe objects in the environment using names of shapes.
- Correctly name shapes regardless of their orientations or overall size.
- Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts and other attributes.
- Represent a number of objects with a written numeral 0-20.
- 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.
- 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.
- 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.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Grade K Unit 2 Math


## Interdisciplinary Connections:

## Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)


## Accommodations:

- CTSD accommodations


## Unit 3

| Subject: Math | Grade: K | Unit Name: Addition and Subtraction Within 5 and Shapes |
| :--- | :--- | :--- |
| Total Number of Lessons: 4 | Unit Time Frame (days): 24 |  |
| NJSLS <br> K.OA.A.1; K.OA.A.2; K.G.A.1; K.G.A.2; K.G.B.4; K.OA.A.1; K.OA.A.2; K.OA.A.1; K.OA.A.2; K.OA.A.1; K.OA.A.2; K.MD.B.3; K.G.A.2; K.G.B.4 |  |  |

Students will be able to independently use their learning to:

- Say the name of two-dimensional shapes that are different sizes and turned different ways.
- Draw shapes and describe their attributes and positions
- Name and draw two-dimensional shapes regardless of orientation or size
- Classify objects into given categories
- Add to find totals within 5
- Subtract to find how many are left
- Add up to 5 and subtract from 5 or less


## Understandings:

- Shapes can be described, identified and compared using a variety of attributes.
- Numbers can be added and subtracted

Performance Tasks:

- Represent addition and subtraction with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations.
- 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.
- Correctly name shapes regardless of their orientations or overall size.
- Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts and other attributes.
- Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Unit 3 Grade K Math


## Interdisciplinary Connections:

- NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.


## Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)


## Accommodations:

- CTSD accommodations


## Unit 4

| Subject: Math | Grade: K | Unit Name: Numbers to 10 and shapes |
| :---: | :---: | :---: |
| Total Number of Lessons: 5 | Unit Time Frame (days): 29 |  |
| NJSLS <br> K.CC.A.3; K.CC.B.4; K.CC.B.5; K.CC.B.4; K.CC.C.6; K.CC.C.7; K.G.B.6; K.OA.A.3; K.OA.A. 4 |  |  |
| Students will be able to independently use their learning to: <br> - Count and compare groups up to 10 objects. <br> - Break 10 into two parts in different ways and find numbers that make 10. <br> - Use two or more shapes to compose a new shape. <br> - Put three-dimensional shapes together to compose larger shapes. <br> - Classify objects into given categories. |  |  |
| Understandings: <br> - Numbers can be made up of numbers of different sizes. <br> - Shapes can be made of two or more different shapes. |  |  |
| Performance Tasks: <br> - Count up to 10 using one-to-one correspondence and number words in sequential order. <br> - Use 10 -frames as a tool to count and represent counts to 10 . |  |  |

- Recognize and write numbers 6 to 10.
- Identify whether the number of objects (to 10) in one group is greater than, less than, or equal to the number in another group.
- Compare two numbers from 1 to 10.
- Compose shapes from two or more two-dimensional or three-dimensional shapes.
- Describe shapes composed of two or more two- or three-dimensional shapes.
- Recognize that a number can be broken into smaller parts.
- Identify number partners for 10 using drawings or manipulatives.
- Find the second number partner for 10 when given the first using drawings or manipulatives.
- Count to answer "how many?" questions about as many as 10 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration
- 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 $5=4+1$ ).
- For any number from 1 to 9 , find the number that makes 10 when added to the given
- number, e.g.,
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- Compose simple shapes to form larger shapes.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Unit 4 Grade K Math

Interdisciplinary Connections:

## Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)


## Accommodations:

- CTSD accommodations


## Unit 5

| Subject: Math | Grade: K | Unit Name: Numbers to 100 |
| :--- | :--- | :--- |
| Total Number of Lessons: 4 | Unit Time Frame (days): 24 |  |
| NJSLS |  |  |
| K.CC.A.3; K.CC.B.4; K.CC.B.5; K.CC.A.1; K.CC.A.2; K.OA.A.3; K.OA.A.3; K.CC.A.3, K.CC.B.4a, K.CC.B.4b, K.CC.B.5, K.OA.A.3, K.MD.B. 3 |  |  |
| Students will be able to independently use their learning to: |  |  |
| - Count a group of up to 20 objects and write up to 20. |  |  |
| - Count to 100 by 1 s and by 10 s. |  |  |
| - Decomponsem 6 any number 7 linto all number partners. Show number partners for 6 and 7 with equations. |  |  |
| - Decompose 8 and 9 into all number partners. |  |  |
| - Compose and decompose numbers within 10. |  |  |
| - Classify objects into given categories. |  |  |

## Understandings:

- Numbering follows a logical pattern.
- Numbers can be composed and decomposed.


## Performance Tasks:

- Count groups of up to 20 objects. Read and write numbers from 11 to 20 .
- Count to 100 by 1 s . Count to 100 by 10 s .
- Count on from a given number that is less than 100 .
- Decompose 6 and 7 into number partners using objects or drawings.
- Represent number partners for 6 and 7 with equations.
- Decompose 8 and 9 into number partners using objects or drawings.
- Represent number partners for 8 and 9 with equations.
- 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.
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Unit 5 Grade K Math

| Interdisciplinary Connections: |
| :--- |
| Computer Science \& Design Thinking (8.1 or 8.2) <br> $\bullet \quad$ Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1) |
| Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4) <br> $\bullet \quad$ Solve given problems in a variety of ways (9.4.2.CT.3) |
| Accommodations: <br> $\bullet \quad$ CTSD accommodations |

## Unit 6

| Subject: Math | Grade: K | Unit Name: Addition and subtraction within 10 |
| :--- | :--- | :--- |
| Total Number of Lessons: 3 | Unit Time Frame (days): 19 |  |
| NJSLS |  |  |
| K.OA.A.1; K.OA.A.5; K.OA.A. 2 |  |  |

- Decide whether to add or subtract to solve a story problem.
- Solve story problems for addition up to 10 or subtraction from 10 or less.
- Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.
- 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 $5=4+1$ ).
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Unit 6 Grade K Math


## Interdisciplinary Connections:

## Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)


## Accommodations:

- CTSD accommodations


## Unit 7

| Subject: Math | Grade: K | Unit Name: Teen Numbers and Shapes |
| :--- | :--- | :--- |
| Total Number of Lessons: 3 | Unit Time Frame (days): 19 |  |
| NJSLS <br> K.NBT.A.1; K.G.A.3; K.G.B.5; K.NBT.A. 1 <br> Students will be able to independently use their learning to: <br> Compose and decompose teen numbers into 10 ones and some more ones. <br> - Identify shapes as flat or solid. Make a picture with flat shapes and build objects with solid shapes. |  |  |

## Understandings:

- Teen numbers are made of 10 ones and more ones.
- Shapes can be flat or solid.


## Performance Tasks:

- Compose and decompose teen numbers into 10 ones and some more ones
- Identify shapes as flat or solid. Make pictures with two-dimensional shapes. Build objects with three-dimensional shapes.
- Make connections between the concrete, representational, and abstract representations of teen numbers.
- Write equations to represent the composition and decomposition of teen numbers.
- Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects)
- 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., $18=10+8$ )
- Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- Correctly name shapes regardless of their orientations or overall size.
- Identify shapes as flat or solid. Make pictures with two-dimensional shapes. Build objects with three-dimensional shapes.
- Model shapes in the world by building shapes from components (e.g., sticks and clay balls)
- and drawing shapes.
- Compose simple shapes to form larger shapes.


## Core Instructional and Supplemental Materials, Assessments, Pacing Guide

- Unit 7 Grade K Math


## Interdisciplinary Connections:

Computer Science \& Design Thinking (8.1 or 8.2)

- Use the computer to perform math tasks in i-Ready 'My Path' (8.1.2.CS.1)

Career Readiness, Life Literacies \& Key Skills (9.1, 9.2 or 9.4)

- Solve given problems in a variety of ways (9.4.2.CT.3)


## Accommodations:

- CTSD accommodations

