Kindergarten

Literacy

Asks and answers questions to gather information, clarify or extend thinking

Participates in group discussions

Communicates thoughts clearly and logically

Listens attentively to others

Takes turns during conversations

Recognizes and names upper and lower-case letters

Demonstrates letter/sound correspondence

Recognizes and produces rhyming words

Blends sounds and syllables in words

Segments sounds and syllables in words

Isolates and pronounces initial and final sounds

Recognizes the difference between a letter, a word, and a sentence

Acquires and applies phonics skills taught in class

Reads high frequency words fluently

Asks and answers questions about key ideas and details in a text

Listens to and responds to text with understanding

Demonstrates an application of decoding strategies in text

Uses a combination of drawing, dictating and writing to compose a written piece

Demonstrates understanding of the basic conventions of print

Forms upper- and lower-case letters

Spells simple words phonetically

Numeracy

Identify, count, and compare numbers 0 – 10

add and subtract to 10

Count to 100

Compose and decompose numbers to 20

Geometry- identify, describe and group 2D and 3D shapes

Measurement- describe and compare measurable attributes

Counts objects in a set using 1 – 1 correspondence

Counts by 1's, and 10's

Writes numerals from 0 -20

Compares numbers/sets of numbers (more than, less than, equal to)

Recognizes numerals from 0 – 20

Demonstrates a beginning understanding of place value (ones and tens)

Composes and decomposes numbers to 10 in more than one way

Represents and solves addition and subtraction with objects

Fluently adds and subtracts through 5

Sorts and classifies objects using a variety of attributes

Identifies and describes geometric shapes 2D and 3D using attributes

Describes the relative position of objects

Canterbury Public School

Illustrative Mathematics promotes the following:

"In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with s of objects; (2) describing shapes and space. More learning time in kindergarten should be devoted to numbers than to other topics. Upon completion of this course students will have the ability to:

- Know number names and the count sequence.
- Count to tell the number of objects.
- Compare numbers.
- Understand addition as putting together and adding to and understand subtraction as taking apart and taking from.
- Work with numbers 11-19 to gain foundations for place value.
- Describe and compare measurable attributes.
- Classify objects and count the number of objects in each category.
- Identify and describe shapes.

Analyze, compare, create, and compose shapes

Scope and Sequence

Narrative

The big ideas in kindergarten include: representing and comparing whole numbers, initially with sets of objects; understanding and applying addition and subtraction; and describing shapes and space. More time in kindergarten is devoted to numbers than to other topics.

The mathematical work for kindergarten is partitioned into 8 units:

1. Math in Our World
2. Numbers 1–10
3. Flat Shapes All Around Us
4. Understanding Addition and Subtraction
5. Composing and Decomposing Numbers to 10
6. Numbers 0–20
7. Solid Shapes All Around Us
8. Putting it All Together

In these materials, particularly in units that focus on addition and subtraction, teachers will find terms that refer to problem types, such as Add To, Take From, Put Together or Take Apart, Compare, Result Unknown, and so on. These problem types are based on common addition and subtraction situations, as outlined in Table 1 of the Mathematics Glossary section of the Common Core State Standards."

Unit 1 Kindergarten Math

Math	
Grade Level	Kindergarten
Unit Title	Unit 1 Math In Our World
Unit Goals	Section A: Explore Our Math Tools Students recognize numbers and quantities in their world K.CC, K.G, K.G.B Section B: Recognize Quantities Recognize and name groups of up to 4 objects and images without counting K.CC, K.CC.B.4 Section C: Are There Enough? Count and compare numbers and quantities K.CC Section D: Counting Collections: count numbers in sequence, count on K.CC, K.CC.A.1, K.CC.B, K.CC.B.4, K.CC.B.4.a, K.G.B

Content/conceptual knowledge	I will know number names and count in sequence I will count to tell the number of objects I will compare numbers I can name numbers and count in sequence I can count objects one at a time, saying the number as I count
Skills	I can describe shapes and where they are located in relation to other shapes and objects Take turns and share my thoughts and ideas about numbers and counting Quantify without counting objects Match groups that have the same number of images and notice that the same quantity can be arranged in many different ways Develop the language to express ideas and listen to the ideas of their peers 1 to 1 correspondence -match one object to one person or image to answer “are there enough?” Subitize quantities. Recognize without counting
Pacing	Approx. 4 – 6 weeks
Standards Addressed	K.CC, K.G, K.G.B Section B: Recognize Quantities K.CC, K.CC.B.4 Section C: Are There Enough? Answer are there enough questions Count and compare numbers and quantities K.CC Section D: Counting Collections: count numbers in sequence, count on, identify and draw shapes

	Count up to 10 objects and answer “how many of ____ are there?” 1 – 1 matching Idea of cardinality the last number tells how many there are K.CC, K.CC.A.1, K.CC.B, K.CC.B.4, K.CC.B.4.a, K.G.B Counting and Cardinality: I know when I count the last number is how many objects there are, I know that no matter which wait I count the objects, the number will still be the same. I can count objects one at a time, saying one number at a time as I count.
Essential Questions	How do I count? How can I use tools to help me count objects? How do I know how many?
Enduring Understandings	Math can be found everywhere around me I can use math tools to help me count objects There are strategies that I can use to help me count and identify quantities
Vocabulary	Over, under, besides, square, cube, rectangle,
Common learning Experiences	***Explore our Math Tools*** ***Explore and use math tools.*** Explore and use connecting cubes Orally describe a mathematical idea Explore and use pattern blocks Share mathematical ideas with a partner Explore and use counters and 5 frames Repeat mathematical ideas shared by a partner Explore and use geoblocks Repeat mathematical ideas shared by a partner Explore and use math tools Listen to partner’s mathematical ideas Describe to a partner how they saw groups of objects or images Learn structures and routines for centers, create norms for classroom learning, And begin to build a mathematical community of learners. PLC Lesson 2 warm-up, Notice and Wonder, Pattern Blocks PLC Introduce picture books – Activity 2 PLC Activity 2 Are There Enough PLC Activity 1 counting collections

Assessments	The cool-down (also known as an exit slip or exit ticket) is to be given to students at the end of the lesson. This activity serves as a brief check-in to determine whether students understood the main concepts of that lesson. Teachers can use this as a formative assessment to plan further instruction. Each unit (starting in Kindergarten, Unit 2) includes an end-of-unit written assessment that is intended for students to complete individually to assess what they have learned at the conclusion of the unit. In K–2, the assessment may be read aloud to students, as needed. Formative assessment to assess students' counting concepts and skills, observing students or asking them to count small groups of objects while they work Sections A- D Checkpoint Formative assess by observing counting concepts and skills
Resources needed	5-frame (groups of 1) Geoblocks Stage 2 (groups of 8) Different Groups, Same Quantity (groups of 2) Picture Books Stage 2 Recording Sheet (groups of 1) Pattern Blocks Stage 3 Directions (groups of 2) Counting Mat (groups of 1) Egg Carton Counting (groups of 1) Connecting Cubes Stage 3 Directions (groups of 2) 5-frames Chart paper Collections of objects Counting mats Materials from previous centers 5-frames Chart paper Collections of objects Counting mats Egg cartons Materials from previous centers 5-frames Connecting cubes Counting mats
Strategies used	Turn and talk Count using manipulatives
Other information	

Unit 2 Kindergarten Math

Math	
Grade Level	Kindergarten
Unit Title	Numbers 1 - 10
Unit Goals and standards	Students answer “how many” questions, count out, and compare groups within 10. Write numbers to represent how many Build counting skills and concepts Students connect different representations to the same number Section A: Count and compare Groups of Objects K.CC, KCC.A.1, Kcc.A.3, K.CC.B.4, K.CC.B.4.b ,K.CC.C.6 Connect quantities with spoken number words Count and compare up to 10 objects and know the number remains the same regardless of the arrangement of the objects. Section B: Count and compare Groups of Images Connect quantities with spoken number words Count and compare up to 10 images in organized arrangements and know the number remains the same regardless of the order in which the images are counted. Keep track of counted items Determine the cardinality of some groups K.CC, K.CC.B.4, K.CC.B.4b, K.CC.B.5m K.CC.C.6 Section C: Connect Quantities and Numbers K.CC, K.CC.A.3, K.CC.B.5, K.CC.C.6 Connect quantities with spoken number words and written numbers Understand the relationship between number and quantity Write numbers to represent quantities Count images arranged in a circle Keep track of what has been counted Look for and make use of a structure to help them with a task

	Section D: Compare numbers K.CC. A.3, K.CC.B.4, K.CC.B.4.c, K.CC.C.6, K.CC.C.7 Compare written numbers 1 – 10 Students can see that the numbers get larger and that there is 1 more each time. Determine"1 more" and "1 less" than a given number or groups of objects Recognize, represent, and write numbers
Content/conceptual knowledge Skills	I will know number names and count in sequence I will count to tell the number of objects I will compare numbers Understand that addition is putting together objects and that subtracting is taking from a group of objects I can compare numbers by size I can name numbers and count in sequence I can count objects one at a time, saying the number as I count Take turns and share my thoughts and ideas about numbers and counting Count using fingers Use any tools such as counting mats, and 5 frames
Pacing	Approx. 4 weeks
Essential Questions	How do I count? How can I use tools to help me count objects?
Enduring Understandings	Math can be found everywhere around me I can use math tools to help me count objects There are strategies that I can use to help me count and identify quantities
Vocabulary	More, fewer, less, greater

Common learning Experiences	Count and rearrange objects – notice that the arrangement of objects does not affect the number of objects (conservation of number) Comparison activities- students start with quantities that are very different and can be compared visually and relate the comparison—more, fewer PLC Lesson 4 Activity 2 Shake and Spill: Which is more? Students work with the structure of 5 and some more; count on from 5 PLC Lesson 9 Activity 2 More and Fewer with 5 frames and fingers PLC Lesson 14 Activity 1 Toppings on Pizza PLC Lesson 18 Warm-Up, Act It Out: Forks for Dinner
Assessments	The cool-down (also known as an exit slip or exit ticket) is to be given to students at the end of the lesson. This activity serves as a brief check-in to determine whether students understood the main concepts of that lesson. Teachers can use this as a formative assessment to plan further instruction. Each unit (starting in Kindergarten, Unit 2) includes an end-of-unit written assessment that is intended for students to complete individually to assess what they have learned at the conclusion of the unit. In K–2, the assessment may be read aloud to students, as needed.
Resources needed	5-frame (groups of 1) Geoblocks Stage 2 (groups of 8) Different Groups, Same Quantity (groups of 2) Picture Books Stage 2 Recording Sheet (groups of 1) Pattern Blocks Stage 3 Directions (groups of 2) Counting Mat (groups of 1) Egg Carton Counting (groups of 1) Connecting Cubes Stage 3 Directions (groups of 2) 5-frames Chart paper Collections of objects Counting mats Materials from previous centers 5-frames Chart paper Collections of objects Counting mats Egg cartons Materials from previous centers 5-frames Connecting cubes Counting mats
Strategies used	Turn and talk Use manipulatives to show quantities and compare 5 frames for counting on Create representations of each number and use the representations to compare Use number sense or mental images of numbers

	Use the knowledge of the count sequence: that numbers that come later in the count sequence are greater
Other information	

Caldecott Winners

Jovita Wore Pants: The Story of a Mexican Freedom Fighter, illustrated by Molly Mendoza, written by Aida Salazar; published by Scholastic Press.

In Every Life, illustrated and written by Marla Frazee, published by Beach Lane Books, an imprint of Simon & Schuster Children's Publishing Division.

There Was a Party for Langston, illustrated by Jerome Pumphrey and Jarrett Pumphrey, written by Jason Reynolds; published by Caitlyn Dlouhy Books/Atheneum Books for Young Readers.

The Truth About Dragons, illustrated by Hanna Cha, written by Julie Leung, published by Henry Holt and Company, an imprint of Macmillan Publishing Group.