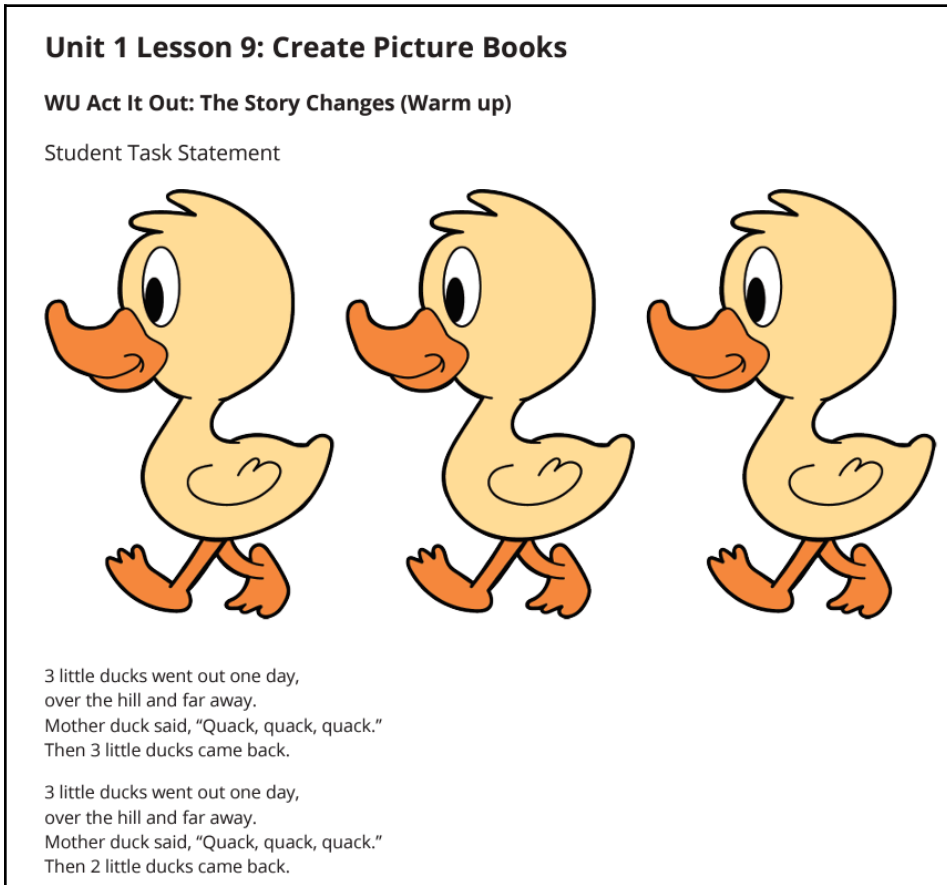
GRADE K MATH CURRICULUM



Unit 1 Lesson 9: Create Picture Books

WU Act It Out: The Story Changes (Warm up)

Student Task Statement

3 little ducks went out one day,
over the hill and far away.
Mother duck said, "Quack, quack, quack."
Then 3 little ducks came back.

3 little ducks went out one day,
over the hill and far away.
Mother duck said, "Quack, quack, quack."
Then 2 little ducks came back.

Grade Level(s): Kindergarten

Curriculum Author(s): Taryn Fernandez
(Curriculum content aligns with the CT State Model Math Curriculum and is based on the Illustrative Math program used in grades K-9)

Course Description: 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.

Year At A Glance			
Unit Title	**Overarching Essential Question**	**Overarching Enduring Understanding**	**Vision of A Learner "I Can" Statements**
Math in Our World	How many are there?	Counting is a way to tell how many objects there are.	TCC1(PK-2); TCC3(PK-2); TCC4(PK-2); CCE1(PK-2); CCE3(PK-2); TI1(PK-2)
Numbers 1-10	Why do we count?	Counting tells how many there are in a group regardless of their arrangement. The last number said when counting tells the total number of objects counted.	TCC3(PK-2); TCC4(PK-2); CCE2(PK-2); TI1(PK-2); TI2(PK-2)
Flat Shapes All Around Us	How can we efficiently describe objects in our environment?	We can describe objects in our environment using geometric terms.	TCC2(PK-2); TCC4(PK-2); CCE1(PK-2); CCE3(PK-2); CCE4(PK-2); P3(PK-2); AA4(PK-2)
Understanding Addition and Subtraction	How can we represent number combinations?	The quantity of numbers can be combined in different groups of numbers.	TCC1(PK-2); TCC2(PK-2); TCC3(PK-2); TCC4(PK-2); CCE1(PK-2); CCE2(PK-2); CCE3(PK-2)
Composing and Decomposing Numbers to 10	How can knowing how to put together or take apart numbers help form other numbers?	Numbers are composed of other numbers and numbers can be decomposed into other numbers.	TCC1(PK-2); TCC2(PK-2); TCC3(PK-2); TCC4(PK-2); CCE1(PK-2); CCE2(PK-2); CCE3(PK-2)
Numbers 0-20	How are teen numbers composed and decomposed?	Teen numbers are composed of a group of ten and some more.	TCC2(PK-2); TCC4(PK-2); CCE1(PK-2); CCE3(PK-2); CCE4(PK-2); P3(PK-2); AA4(PK-2)
Solid Shapes All Around Us	What language can we use to describe 3-dimensional shapes?	With 3-dimensional shapes we can talk about capacity and weight.	TCC2(PK-2); TCC4(PK-2); CCE1(PK-2); CCE3(PK-2); CCE4(PK-2); P3(PK-2); AA4(PK-2)
Putting it All Together	How can we compare two groups of objects?	We can compare how many objects are in two different groups to tell which group is larger and which is smaller	TCC1(PK-2); TCC2(PK-2); TCC3(PK-2); TCC4(PK-2); CCE1(PK-2); CCE2(PK-2); CCE3(PK-2)

Unit 1 - Math in Our World

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- K.CC.A.1 Count to 100 by ones and by tens.
- K.CC.B.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC1(PK-2): I can ask questions to solve a problem.
- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- TI1(PK-2): I can use pictures or models to decide what to do next.

Understandings: Students will understand that...

- Using pattern blocks, counting cubes, and picture books are great ways to practice math skills.
- Counting is a way to tell how many objects there are.
- There are different ways to solve a problem.
- Counting tells how many there are in a group regardless of their arrangement. The last number said when counting tells the total number of objects counted.
- Numerals are the symbols we read and write to communicate quantities (numbers).

Essential Questions:

- How many are there?
- Why do we count?
- How are numerals used?

Students will know...

- Numbers 1 through 10
- Centers will be used during math lessons for small group practice
- Expressing what they notice and wonder helps others understand what they are thinking

Students will be able to...

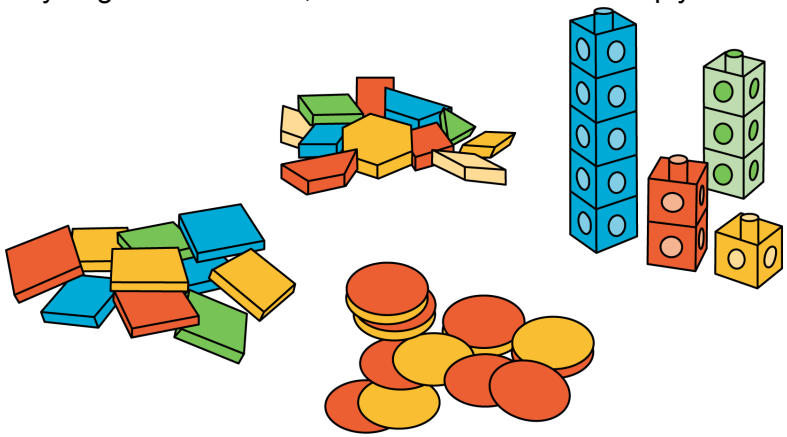
- Explore and use math tools.
- Share mathematical ideas with a partner.
- Recognize and name groups of up to 4 objects and images without counting.
- Answer "are there enough" questions.

• There is a standard order to counting. • Counting can begin at any given number. • Counting tells how many things there are in a set. • A numerical symbol represents a quantity (including zero). • A one-to-one relationship connects one object with one number name and one numeral. • Each counted number stated includes all of the previous numbers in a counted set. • The last number stated identifies the quantity in a set. • When counting by ones, the next number in the sequence increases the quantity by one.	• Count groups of up to 10 objects. • Use and verbalize the successive number names pattern for counting by ones sequence. • Count forward by ones (within 100), beginning from a given number. • Identify numerals and their names (from 0 to 10). • Create a set of objects based on the number represented (from 0 to 10). • Use a strategy to count and tell how many objects are in a set regardless of arrangement, size, or type. • Count a set of objects (up to 10) in a scattered arrangement.
Key Vocabulary: geoblocks, counting cubes, notice, wonder, enough, explore, counters, 5-frames, objects, images, after, alike, before, behind, count, counting, number names, numerals, order, quantity	
Assessment Evidence	
Performance Tasks: The end of unit assessment is an interview in which students answer questions about counting with a focus on “how many are there?”	**Other Evidence:** Various checkpoints throughout the unit for the following: • Say the count sequence to 10. • Say one number for each object. • Answer how many without counting again. • Show quantities on fingers. • Recognize and name groups of 1, 2, or 3 objects or images without counting. • Recognize and name groups of 4 objects or images without counting. • Identify groups with the same number of objects (for groups of up to 4 objects).
Learning Plan	
TCC1(PK-2): I can ask questions to solve a problem. TCC3(PK-2): I can use what I’ve learned to come up with a solution. TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.	

CCE1(PK-2): I can share my ideas with help and show that I respect others.
CCE3(PK-2): I can listen to my classmates and share my ideas with them.
TI1(PK-2): I can use pictures or models to decide what to do next.

- Students recognize numbers and quantities in their world.

In this unit, students explore mathematical tools and notice numbers and quantities around them, while teachers gather information about students' counting skills and understanding of number concepts.
Students enter kindergarten with a range of counting experiences, concepts, and skills. This unit is designed to be accessible to all learners regardless of their prior experience. To that end, no counting is required for students to engage in the activities in the first three sections, though students may choose to count. Students also have opportunities to work with math tools and topics related to geometry, measurement, and data through a variety of centers.
In the last section, students count collections of objects and groups of people, answering "how many of _____ are there?" questions. These questions reinforce the idea that counting is a way to tell how many objects there are. Students are expected to count up to 10 objects by the time they begin the next unit, which will focus more deeply on numbers 1–10.



The unit is also designed to give students time to learn the structures and routines for centers, to create norms for classroom learning, and to begin to build a mathematical community. The content and timing of the lessons at the beginning of the unit are calibrated to make this possible.
To gather information about students' counting and number concepts, consider asking individual students to count a small group of objects and observing the skills or understandings listed in the provided checklist. The end-of-unit assessment, a one-on-one interview, is another opportunity to find out what students know and can do. This assessment is not necessary for those who have demonstrated the skills on the checklist throughout the unit.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 2 - Numbers 1-10

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- 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.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.7.: Compare two numbers between 1 and 10 presented as written numerals.
- In addition to the above standards this unit continues to build mastery of the following standards:
- K.CC.A.1.: Count to 100 by ones and by tens.
- 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.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. (Include groups with up to ten objects.)

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- TI1(PK-2): I can use pictures or models to decide what to do next.
- TI2(PK-2): I can explore and use tools that work best for me.

Understandings: Students will understand that...

- Counting tells how many there are in a group regardless of their arrangement. The last number said when counting tells the total number of objects counted.
- Numerals are the symbols we read and write to communicate quantities (numbers).

Essential Questions:

- Why do we count?
- How are numerals used?
- How can two quantities be related?

• One quantity is either greater than, less than or equal to another.	
Students will know... • There is a standard order to counting. • Counting tells how many things there are in a set. • A numerical symbol represents a quantity (including zero). • A one-to-one relationship connects one object with one number name and one numeral. • Each counted number stated includes all of the previous numbers in a counted set. • The last number stated identifies the quantity in a set. • When counting by ones, the next number in the sequence increases the quantity by one. • The terms greater/more than, less/fewer than, and same as can be used when comparing objects and numerals. • The quantity of a set does not change based on the arrangement, size, or type of object.	**Students will be able to...** • 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. • 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. • Connect quantities with spoken number words and written numbers. • Understand the relationship between number and quantity. • Compare written numbers 1–10.
Key Vocabulary: after, alike, before, behind, compare, different, in front of, least, more, most, cardinality, count, counting, equal to, greater than, less than, number, number names, numerals, order, quantity	
Assessment Evidence	

Performance Tasks:
Students match numbers with pictures that contain the same number of objects. They also count, write numbers, indicate which group in a picture has more or fewer objects, write a number that is more or less than one shown, and write missing numbers in a sequence.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	• Count up to 10 objects and know the number remains the same regardless of the arrangement of objects.
	  • Say one number for each object.
	  • Answer how many without counting again.
	  • Answer how many about a group that has been rearranged without counting again.
	  • Use the structure of 5 (in 5-frames or on fingers) to count on from 5 to tell how many.

	● Compare the number of objects in groups of up to 10 objects.
	  ● Compare the number of objects in groups.
	  ● Use “more,” “fewer,” and “the same number” to describe comparisons.
	  ● Make groups with more than, fewer than, or the same number of objects as a given group.

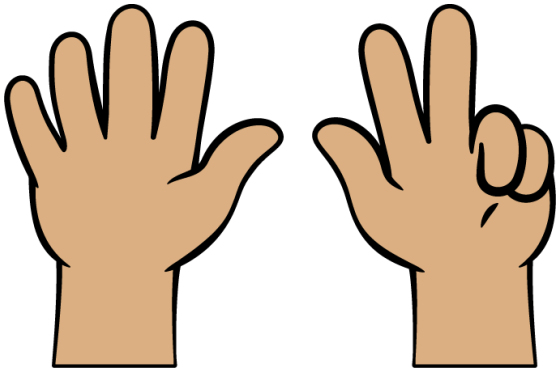
Learning Plan

- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- TI1(PK-2): I can use pictures or models to decide what to do next.
- TI2(PK-2): I can explore and use tools that work best for me.

    - Students answer “how many” questions, count out, and compare groups within 10. Students write a number to represent how many.

In this unit, students continue to develop counting concepts and skills, including comparing, while learning to write numbers.
Previously, students answered “how many” and “are there enough” questions and counted groups of up to 10 objects. They also learned the structures and routines for activities and centers.
Here, students rely on familiar activity structures to build their counting skills and concepts. First, they count and compare the number of objects, and then do the same with groups of images. The images are given in different arrangements—in lines, arrays, number cube patterns, on 5-frames—to help students connect different representations to the same number.
Use of fingers and 5-frames to represent numbers are emphasized and encouraged because they can help students see the structure of numbers 6–10 as . (Ten-frames will be introduced in a later unit.) Fingers are also helpful for counting and are always available.
In these materials, quantities represented with fingers are shown, from students’ perspective, to start with the left pinky. Numbers 6–10 continue with the thumb on the right hand. When demonstrating numbers on fingers for students, begin with the right pinky so that students see the fingers being held up from left to right.





Students can represent numbers with their fingers in any way, as long as they show the correct number of fingers. To compare the number of objects or images, students start by using terms such as “fewer” and “more.” Later, when comparing written numbers, the term “less” is introduced. In general, “less” is used to compare numerals, and “fewer” is used to compare groups of objects. Students may use these terms interchangeably at first, but will develop proficiency with the distinction over time.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 3 - Flat Shapes All Around Us

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- K.CC.1: Count to 100 by ones and by tens.
- K.CC.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.G.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.2: Correctly name shapes regardless of their orientations or overall size.
- K.G.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.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- K.MD.1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
- K.MD.3: Classify objects or people into given categories; count the numbers in each category and sort the categories by count. (Note: Limit category counts to be less than or equal to 10.)

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.

Understandings: Students will understand that...

- Shapes can be identified regardless of size or orientation.
- We can describe objects in our environment using geometric terms.

Essential Questions:

- How can we efficiently describe objects in our environment?
- What attributes do different shapes have?

Students will know...	Students will be able to...
• Attributes of flat shapes. • Names of 2-dimensional shapes. • Shapes exist in the environment. • Shapes can be described by position and location. • Shapes can be described by their attributes.	• Use informal language to describe shapes. • Identify shapes that are the same. • Use informal language to describe and compare shapes and their attributes. • Sort shapes into groups. • Use informal language to describe and compare shapes and their attributes. • Identify, describe, and compare circles and triangles. • Compare the lengths of two shapes. • Identify, describe, and compare rectangles and squares. • Build shapes from components and name the shapes. • Compare the lengths of 2 objects, by lining up the endpoints. • Draw shapes. • Name shapes and use informal language to describe shapes and their attributes. • Name shapes and use informal language to describe attributes of shapes in the environment. • Put shapes together to form larger shapes. • Identify shapes that are the same, regardless of orientation or size. • Describe the location of shapes using positional words.

Key Vocabulary: above, behind, below, beside, differences, in front, next to, similarities, attribute, circle, flat, hexagon, length, orientation, part, rectangle, shapes, side, square, triangle, two-dimensional

Assessment Evidence	

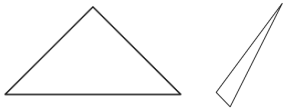
Performance Tasks:
Students identify shapes by name and select common objects in the environment that are examples of specified flat shapes. Students also choose shapes that are longer or shorter to demonstrate their comparison skills.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	• Recognize and describe shapes in the environment.
	• Use informal language to describe and compare shapes and their attributes.
	  ◦ Use informal language to describe shapes.
	  ◦ Tell what is the same or different about two or more shapes.

	● Sort shapes into groups. ● Compare the length of objects. ● Identify circles, triangles, rectangles, and squares. ● Name circles, triangles, rectangles, and squares. ● Put shapes together to form larger shapes. ● Describe shapes made from pattern blocks. ● Identify the pattern blocks needed to fill a puzzle. ● Recognize shapes that are the same regardless of orientation. ● Use positional words to describe the location of shapes. ● Count the number of pattern blocks used to make a shape. ● Compare the number of pattern blocks used to make a shape.

Learning Plan

- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.
    - Students identify, describe, analyze, compare, and compose two-dimensional shapes.

This unit introduces students to the foundational concepts of geometry, with a focus on familiar flat (two-dimensional) shapes.
Students may initially associate names of shapes with everyday objects. For example, a rectangle is a shape that looks like a door. Students need to see and interact with many examples of a shape to accurately relate what's in their environment to the geometric term.
For instance, students may say that only one of these two shapes is a triangle—the isosceles triangle sitting on its base—because they have seen examples like it being referred to as triangles. They may not consider a scalene triangle sitting on a vertex as a part of the same shape category because, in their experience, a shape like it hasn't been associated with the term "triangle."



Students explore differences in shapes and use informal language to describe, compare, and sort them. Circle, triangle, rectangle, and square are four shapes that students study and name here. (They will not describe what makes each shape so until grade 1.) Students also learn a key idea, that congruent shapes are still “the same” even if they are in different orientations. Later in the unit, students use pattern blocks to make larger shapes. They reinforce their counting and comparison skills as they count and compare the pattern blocks used to create larger shapes. Students also use positional words (above, below, next to, beside) to describe the shapes they compose.
Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 4 - Understanding Addition and Subtraction

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- K.OA.A.1. Represent addition and subtraction with objects, fingers, mental images, drawings*, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
    - * Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)
- 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.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.
- K.OA.A.5. Fluently add and subtract within 5.
- In addition to the above standards this unit continues to reinforce and provide opportunities to build mastery of the following 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.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC1(PK-2): I can ask questions to solve a problem.
- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.

Understandings: Students will understand that...	**Essential Questions:**
• The quantity of numbers can be combined in different groups of numbers. • Number combinations are used for addition and subtraction of numbers. • Word problems are number stories that help us visualize equations.	• How can we represent number combinations? • What mathematical stories can we tell to represent number sentences?
Students will know...	**Students will be able to...**
• There is a standard order to counting. • Counting can begin at any given number. • Counting tells how many things there are in a set. • A numerical symbol represents a quantity (including zero). • A one-to-one relationship connects one object with one number name and one numeral. • Each counted number stated includes all of the previous numbers in a counted set. • The last number stated identifies the quantity in a set. • When counting by ones, the next number in the sequence increases the quantity by one. • There is a relationship between addition and subtraction. • Adding 1 results in the next number in a counting sequence. • Subtracting 1 results in the previous number in a counting sequence. • Adding or subtracting 0 results in the same number. • 0 is the number of items left when all the objects in a set are taken away.	• Use and verbalize the successive number names pattern for counting by ones and decades (by tens) sequence. • Count forward by ones (within 100), beginning from a given number. • Count by tens, starting at 10. • Identify numerals and their names (from 0 to 20). • Write numerals (from 0 to 10). • Write a numeral (from 0 to 10) to represent a quantity. • Create a set of objects based on the number represented (from 0 to 10). • Use a strategy to count and tell how many objects are in a set regardless of arrangement, size, or type. • Count a set of objects (up to 10) in an organized arrangement (line, rectangular array, or circle). • Count a set of objects (up to 10) in a scattered arrangement. • Produce a set of objects (not to exceed 10), using one-to-one correspondence. • Make a set that is one more than a given number.
Key Vocabulary: counting, equal to, larger, less than, Number, order, Put together, quantity, Represent, Take Apart, Addition, Additions sign/plus sign, cardinality, Compose, Decompose, Equation, number pairs, Numeral, Subtraction, Subtraction sign/minus sign	

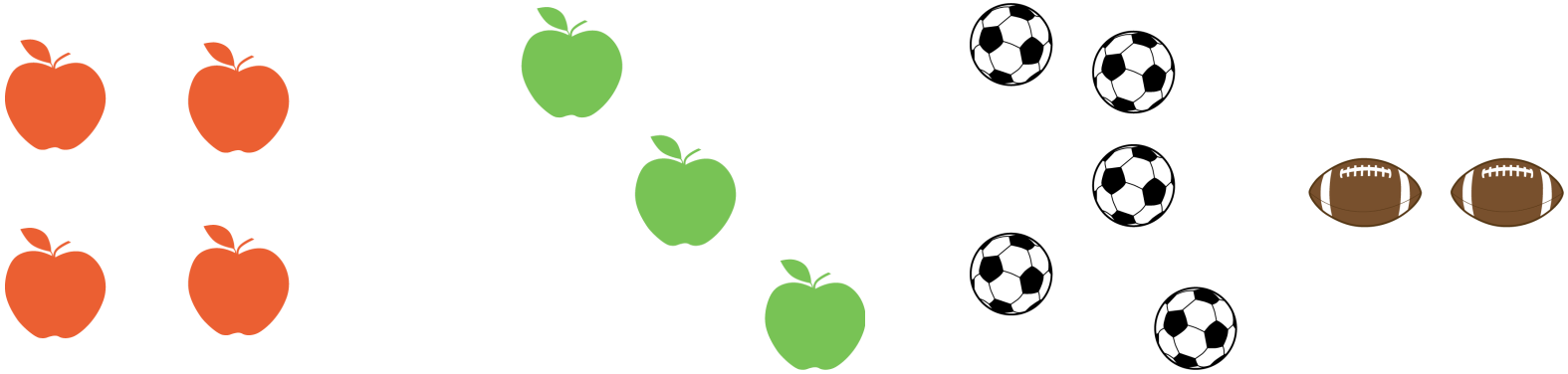
Assessment Evidence	

Performance Tasks:
Students count 2 sets of objects. Students solve an Add To, Result Unknown story problem. Students may use objects to represent and solve the problem or they may make a drawing. Students represent and solve a Take From, Result Unknown story problem. Students may use objects to represent and solve the problem. Students match pictures with expressions.Students add and subtract within 10. They are given expressions, rather than a story or pictures, so this item focuses on student ability to interpret the and signs as well as their ability to do arithmetic within 10.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	● Understand addition as putting together and subtraction as taking from.
	  ● Keep track of which objects or images have been counted.
	  ● Count to find the total or difference.
	  ● Add or take away objects to represent addition and subtraction.
	● Represent and solve Add To, Result Unknown and Take From, Result Unknown story problems within 10.
	  ● Accurately retell a story problem in their own words.
	  ● Understand the action in a story problem and act it out or demonstrate it with objects or drawings.
	  ● Use objects or drawings to represent a story problem.
	  ● Explain how objects or drawings represent a story problem.
	● Relate addition and subtraction expressions to story problems.
	  ● Explain how an expression connects to a drawing or story problem.
	  ● Fill in an expression to represent a drawing.
	● Find the value of addition and subtraction expressions within 5.
	  ● Use fingers, objects, or drawings to find the value of an expression.
	  ● Count all to determine the total when 0 or 1 are added.
	  ● Use knowledge of the count sequence to determine the total when 1 is added.

Learning Plan
● TCC1(PK-2): I can ask questions to solve a problem. ● TCC2(PK-2): I can look and listen to other ideas to make my own thinking. ● TCC3(PK-2): I can use what I've learned to come up with a solution. ● TCC4(PK-2): I can use my new learning inside the classroom and throughout the day. ● CCE1(PK-2): I can share my ideas with help and show that I respect others.

- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
    - Students relate counting to addition and solve addition and subtraction story problems within 10.

In this unit, students develop their understanding of addition and subtraction as they represent and solve story problems.
Previously, students built their counting skills and represented quantities in a group with their fingers, objects, drawings, and numbers. Here, they relate counting to the result of two actions: putting objects together or taking objects away. Students enact addition by counting the total number of objects in two groups, and subtraction by counting what remains after some objects are taken away. (The word “total” is used here instead of “sum” to reduce potential confusion with the word “some” or part of a whole.)



Students then make sense of stories without questions and later solve story problems of two types—Add To, Result Unknown and Take From, Result Unknown. Students represent the problems in different ways, by acting them out, drawing, using numbers, or using objects. Connecting cubes should be accessible in all lessons for students who wish to use them, including for cool-downs. All story problems should be read aloud by the teacher, multiple times if needed.
Students are also introduced to expressions, a symbolic way to represent addition and subtraction. Initially, the teacher records the process of adding and subtracting using words such as “5 and 3” or “4 take away 1.” Later, students see that “5 and 3” and “4 take away 1” can be expressed by and , respectively. They learn that these expressions are read “5 plus 3” and “4 minus 1.” (Students are not expected to read expressions out loud or to use precise language at this point.)
Later in the section, students connect expressions to pictures and story problems. They find the value of addition and subtraction expressions within 10.
In a future unit, students will compose and decompose numbers up to 10 and solve other types of addition and subtraction problems.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 5 - Composing and Decomposing Numbers to 10

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- K.CC.1: Count to 100 by ones and by tens.
- K.CC.2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- K.CC.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.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.OA.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.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.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.
- K.OA.5: Fluently add and subtract within 5.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC1(PK-2): I can ask questions to solve a problem.
- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.

Understandings: Students will understand that...

- Numbers are composed of other numbers.
- Numbers can be decomposed into other numbers.

Essential Questions:

- How can knowing how to put together or take apart numbers help form other numbers?

Students will know...	**Students will be able to...**
• Numbers can be decomposed with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations and can be demonstrated in more than one way. • There is more than one way to compose or decompose a number. • A smaller set of objects exists within a larger set. • There are different problem types: add to (result unknown); take from (result unknown); and put together/take apart (total unknown and both addends unknown). • Addition is putting together. • Subtraction is taking apart, taking from, or comparing two quantities.	• Use knowledge of number combinations to fluently add and subtract within 5. • Represent addition and subtraction with multiple modalities. • Represent addition and subtraction word problems with objects or drawings. • Represent addition and subtraction word problems with multiple modalities within 10. (objects and drawings) • Extend number combinations of 5 to combinations within 10 by using objects or drawings, and record the answer with a drawing or equation.
Key Vocabulary: counting, equal to, larger, less than, Number, order, Put together, quantity, Represent, Take Apart, Addition, cardinality, Compose, Decompose, Equation, number pairs, Numeral, Subtraction	
Assessment Evidence	

Performance Tasks:
 	
Students write an expression matching a picture which shows two different groups put together. Students find the number that makes 10 with given numbers. The problem is without context and without representation. Students write a number less than 10 as a sum of two numbers in more than one way. Students solve a Put Together, Total Unknown story problem in a way that makes sense to them. They may answer with numbers or with a drawing.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	• Compose and decompose numbers up to 9 in more than 1 way.
	  ◦ Understand that numbers can be composed or decomposed in different ways.
	  ◦ Compose and decompose numbers in different ways.
	  ◦ Represent decompositions with a drawing.
	• Write expressions to represent decompositions.
	  ◦ Represent decompositions with an expression.
	• Solve addition and subtraction story problems within 10.
	  ◦ Accurately retell a story problem in their own words.
	  ◦ Use objects or drawings to represent a story problem.
	  ◦ Explain how objects or drawings represent a story problem.

	● Use labels, colors, numbers, or other methods to represent the two groups in a story problem. ● For any number from 1 to 9, find the number that makes 10 when added to the given number. ● Recognize that a full 10-frame contains 10 counters and that 2 hands have 10 fingers. ● Relate equations to compositions and decompositions of 10. ● Given a number, use the structure of 10-frames or fingers to determine how many more are needed to make 10. ● Given a number, use connecting cubes to determine how many more are needed to make 10. ● Given a number, know how many more are needed to make 10.

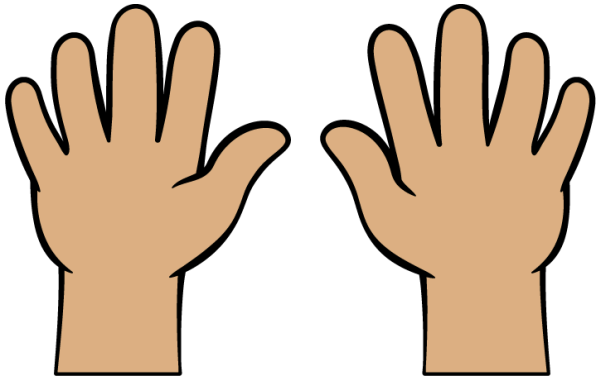
Learning Plan

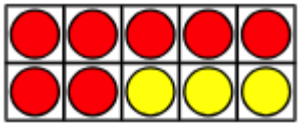
- TCC1(PK-2): I can ask questions to solve a problem.
- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC3(PK-2): I can use what I've learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
    - Students compose and decompose numbers within 10.

In this unit, students explore different ways to compose and decompose numbers within 10 and to represent the compositions and decompositions.

Previously, students counted and compared groups and images of up to 10 objects. They solved addition and subtraction story problems and wrote expressions to represent the problems. Here, they use those experiences to compose and decompose numbers within 10. (The terms "make" or "break apart" are used with students.)

Special attention is given to composing and decomposing 10, as it is the basis of place value in our number system. To support their reasoning, students use their fingers and a 10-frame—created by putting together two 5-frames. They use these tools to think about pairs of numbers that make 10.





Symbolic notation develops slowly across the units. Students first complete expressions that represent numbers being composed and decomposed. In doing so, they also practice writing numbers without handwriting lines.
Later, students encounter equations of the form . Teachers read this equation as “5 is 3 plus 2.” Note that the equations are written with the total on the left side of the equal sign and the addends on the right. Aside from representing composition and decomposition, this notation helps students see that the equal sign means that “both sides have the same value,” rather than “the answer comes next.” In a later unit, students will see equations with the addends on the left side.
The work here prepares students to make sense of teen numbers in the next unit and lays the groundwork for students to develop fluency with addition and subtraction facts within 10 in grade 1. (For example, to find the sum of , they can decompose 5 into and find or .) Much of the addition and subtraction work in future grades also hinges on the idea of composing and decomposing numbers, 10 in particular.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 6 - Numbers 0-20

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- 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 by ten ones and one, two, three, four, five, six, even, eight, or nine ones.
- K.OA.A.1. Represent addition and subtraction with objects, fingers, mental images, drawings *, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
- In addition to the above standard this unit continues to reinforce and provide opportunities to build mastery of the following standards:
- K.CC.A.2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
- KCC.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.
    - * Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.

Understandings: Students will understand that...	**Essential Questions:**
● Teen numbers are composed of a group of ten and some more.	● How are teen numbers composed and decomposed?
Students will know... ● Number names for teen numbers. ● A one-to-one relationship connects one object with one number name and one numeral. ● Each counted number stated includes all of the previous numbers in a counted set. ● The last number stated identifies the quantity in a set. ● When counting by ones, the next number in the sequence increases the quantity by one. ● The quantity of a set does not change based on the arrangement, size, or type of object (conservation). ● The basic unit of the base-ten system is a one. ● A group of ten consists of ten “ones.”	**Students will be able to...** ● Decompose/compose teen numbers into a group of ten and some ones, using modalities as well a numerical representation. ● Use objects/drawings to show how many tens and ones are in a number 11-19. ● Record compositions and decompositions using an equation. ● Use and verbalize the successive number names pattern for counting by ones in sequence. ● Use a strategy to count and tell how many objects are in a set regardless of arrangement, size, or type. ● Produce a set of objects (not to exceed 20), using one-to-one correspondence. ● Make a set that is one more than a given number. ● Use objects, drawings, and strategies to represent addition and subtraction. ● Use strategies including objects, drawings, and numbers (equations when developmentally appropriate) to compose and decompose numbers from 11 to 19. ● Use ten objects to represent ten. ● Explore the structure of teen numbers to recognize a pattern.
Key Vocabulary: Equal, Greater than, Less than, Number, Unit, Base-ten system, Compose, Decompose, Digit, Equation, Expression, Leftover, Numeral, Remainder, Teen number	
Assessment Evidence	
Performance Tasks: Students draw a given number of dots. They are given a blank 10-frame which they may use but do not need to. Students count dots presented in a 10-frame and in two rows. Students make a given	**Other Evidence:** Various checkpoints throughout the unit for the following: ● Count groups of up to 20 objects. ● Say the count sequence to 20.

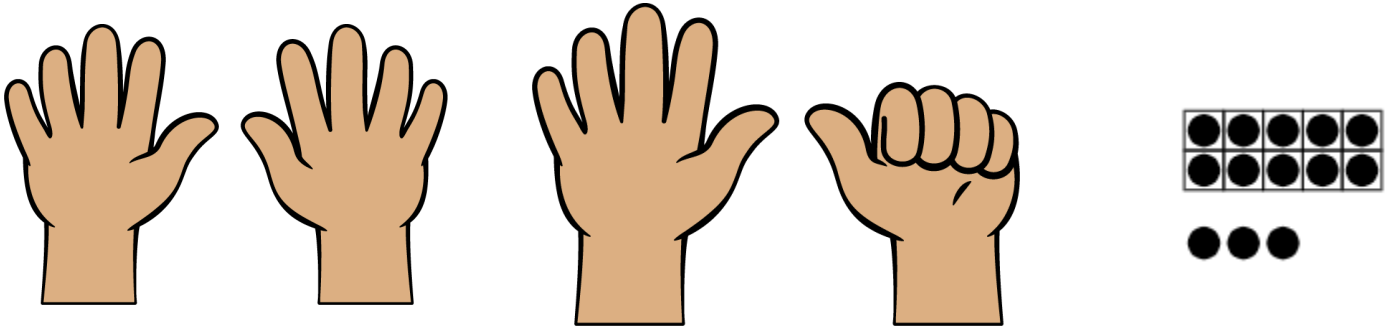
number in the teens using 10 and some more. Students express numbers from 11 to 19 using an equation. In each case, the number is expressed as 10 ones and some more ones, with the total missing.	● Answer how many without counting again. ● Keep track of objects that have been counted. ● After a group of objects that have been counted is rearranged, know that the total number of objects remains the same without recounting. ● Understand numbers 11–19 as 10 ones and some more ones. ● Count all to find the total. ● Know that a full 10-frame or all the fingers on two hands represents 10 without counting. ● Count on from 10 to find the total. ● Count or recognize the ones outside of the 10 ones and use a 10+n fact to find the total. ● Write numbers 11–19. ● Count groups of up to 20 images. ● Keep track of images that have been counted. ● Identify a group of 10 images in a group of 11–19 images. ● Count all to find the total. ● Count on from 10 to find the total. ● Write numbers 11–20.

Learning Plan

- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.
    - Students answer “how many” questions and count out groups within 20. They understand that numbers 11 to 19 are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones. They write numbers within 20.

In this unit, students count and represent collections of objects and images within 20. They apply previously developed counting concepts—such as one-to-one correspondence, keeping track of what has been counted, and conservation of numbers—to larger numbers.

Previously, students have counted, composed, and decomposed numbers up to 10, using tools such as counters, connecting cubes, 5-frames, 10-frames, drawings, and their fingers. They wrote expressions to record compositions and decompositions.
Here, students use the 10-frame to organize groups of 11–19 objects and images. This tool encourages students to see teen numbers as 10 ones and some more ones, emphasizing the structure of the numbers 11–19. They use this structure as they represent teen numbers with their fingers, objects, drawings, expressions, and equations. Students see equations with the addend written first, such as .



Throughout the unit, students practice tracing and writing numbers 11–20. It is common for students at this stage to write numbers backwards, so the emphasis is on writing a number that is recognizable to others. Reversing the order of the digits of teen numbers is also expected, due to how teen numbers are said in English. Repeatedly seeing the number 1 written first to represent teen numbers helps students recognize the structure of these numbers.

When tracing and writing numbers, students should write on a flat surface while sitting in a chair with feet flat on the floor. Number writing practice can also happen in other parts of the day and can be done using a variety of writing tools (crayons, colored pencils, markers, and so on) for increased engagement. Students can practice creating numbers with dough, tracing numbers in sand, or forming numbers with pipe cleaners.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 7 - Solid Shapes All Around Us

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- 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.5. Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
- K.MD.B.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. * Limit category counts to be less than or equal to 10

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.

Understandings: Students will understand that...

- Shapes can be categorized as two-dimensional (flat) or three-dimensional (solid)
- Shapes can be identified regardless of size or orientation.

Essential Questions:

- What determines the difference between 2-dimensional and 3-dimensional shapes?
- Why is mathematical language critical when describing 2-dimensional and 3-dimensional shapes?
- What language can we use to describe 3-dimensional shapes?

Students will know...

- Attributes of flat and solid shapes.
- Names of 2 and 3-dimensional shapes.
- Shapes exist in the environment.

Students will be able to...

- 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.

• Shapes can be described by position and location. • Shapes can be described by their attributes. • Three-dimensional shapes have unique attributes.	• Explore and recognize attributes of shapes. • Identify and describe shapes in the environment using a variety of visual representations. • Name shapes regardless of their orientation or overall size. • Identify shapes as flat or solid. • Describe commonalities and differences of shapes using informal language. • Describe parts and attributes of shapes using informal language. • Create solid shapes
Key Vocabulary: above, behind, below, beside, differences, in front, next to, similarities, attribute, circle, cone, cube, cylinder, flat, hexagon, length, orientation, part, rectangle, shapes, side, solid, sphere, square, three-dimensional, triangle, two-dimensional	
Assessment Evidence	

Performance Tasks:
 	
Students identify and count different pattern block shapes in a puzzle. They also count all of the pattern blocks in the puzzle. Since they cannot move the pieces, they will need to count carefully in order to count each shape once and only once. Students compare the weight of objects that are presented with pictures. The objects are common so that students will identify them readily and be able to compare. Students will describe how two 3-dimensional shapes are the same and how they are different.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	• Count and compare numbers, and solve story problems involving shapes.
	• Compose shapes from smaller shapes.
	  ◦ Count all to determine the total.
	  ◦ Write a number to represent a quantity up to 20.
	  ◦ Accurately retell a story problem in their own words.
	  ◦ Use objects, drawings, or equations to represent a story problem.
	  ◦ Explain connections between objects, drawings, story problems, and equations.
	• Describe and compare three-dimensional shapes.
	• Compare weight and capacity of objects.
	• Compose shapes from smaller shapes.
	  ◦ Distinguish between flat and solid shapes.
	  ◦ Use their own language to describe and compare attributes of solid shapes.

	● Use comparison language to describe the weight or capacity of objects. ● Build solid shapes from components. ● Put solid shapes together to compose new shapes. ● Use positional words to describe the locations of solid shapes.

Learning Plan

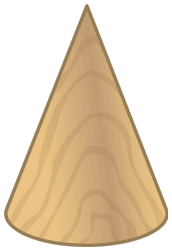
- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.
- CCE4(PK-2): I can come up with ideas and share them with others in a way they can understand.
- P3(PK-2): I can be patient when something is hard for me to do and try again using what I learned to help me do better.
- AA4(PK-2): I can listen to others and participate as I learn and grow.
    - Students identify, describe, analyze, compare, and compose two- and three- dimensional shapes. Counting, addition, and subtraction are revisited in the geometric contexts.

In this unit, students explore solid shapes while reinforcing their knowledge of counting, number writing and comparison, and flat shapes. They compose figures with pattern blocks and continue to count up to 20 objects, write and compare numbers, and solve story problems.
In an earlier unit, students investigated two-dimensional shapes. They named shapes (circle, triangle, rectangle, and square) and described the ways the shapes are different. Students used pattern blocks to build larger shapes and used positional words (above, below, next to, beside) along the way.
Here, students distinguish between flat and solid shapes before focusing on solid shapes. They consider the weight and capacity of solid objects and identify solid shapes around them.

Geoblocks, connecting cubes, and everyday objects are used throughout the unit. Standard geoblock sets do not include cylinders, spheres, and cones. When these shapes are required, “solid shapes” are indicated as required materials. If solid shapes are not available, students can work with everyday items that represent each shape.

Students use their own language to describe attributes of solid shapes as they identify, sort, compare, and build them, while also learning the names for cubes, cones, spheres, and cylinders.

3 cones	4 cubes	5 cylinders





How many shapes did you use all together?

The work here prepares students to identify defining attributes of shapes and to use flat and solid shapes to create composite shapes in grade 1.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits

Unit 8 - Putting it All Together

Desired Results - Goals, Transfer, Meaning, Acquisition

Established Goals:

- 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).
- 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.
- K.CC.B.4.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.MD.B.3: Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
- 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 (such as 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.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.

Vision of A Learner Attributes: Students will be able to independently use their learning to... (“I can” statements to be demonstrated)

- TCC1(PK-2): I can ask questions to solve a problem.
- TCC2(PK-2): I can look and listen to other ideas to make my own thinking.
- TCC3(PK-2): I can use what I’ve learned to come up with a solution.
- TCC4(PK-2): I can use my new learning inside the classroom and throughout the day.
- CCE1(PK-2): I can share my ideas with help and show that I respect others.
- CCE2(PK-2): I can ask an adult or my classmates for help and try a new way to complete the task.
- CCE3(PK-2): I can listen to my classmates and share my ideas with them.

Understandings: Students will understand that...

- We can compare how many objects are in two different groups to tell which group is larger and which is smaller

Essential Questions:

- How can we compare two groups of objects?
- How can we explain how we got our answer?

Students will know...	**Students will be able to...**
● Numbers can be composed and decomposed in different ways ● We can tell number stories to represent an equation	● Count and compare groups of objects and images. ● Represent and write numbers up to 20. ● Represent and write quantities and numbers up to 20. ● Fluently add and subtract within 5. ● Use understanding of 10 to work with numbers to 20.
Key Vocabulary: how many, more than, less than, bigger than, smaller than, compose, decompose, equation, represent, quantities, sum, difference	
Assessment Evidence	

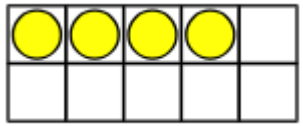
Performance Tasks:
 	
Students compare sets of pattern blocks and decide, in one case, which group has more things and, in the other case, which group has fewer things. Students identify which single-digit number is greater or less. Students find the number that makes 10 with a given number. Students count objects in a line, in a circle, and arranged in a 10-frame. They write a number to show the result of their count. Students evaluate and write expressions for teen numbers. For the decomposition questions, students are likely to write the numbers as 10 and some more but there are many correct responses. Students solve a Take Away, Result Unknown story problem. They may draw a picture as in the provided solution or they may write an equation or explain their reasoning in words.
	Other Evidence:
	Various checkpoints throughout the unit for the following:
	● Count and compare groups of objects and images.
	● Represent and write numbers up to 20.
	  ● Count, read, and write numbers up to 20.
	  ● Use numbers and their knowledge of the count sequence to compare groups of objects.
	  ● Use their knowledge of the count sequence to find how many after one is added or taken away from a given number.
	● Represent and write quantities and numbers up to 20.
	  ● Count, read, and write numbers up to 20.
	  ● Use objects, drawings, numbers, words, and expressions or equations to represent quantities up to 20.
	● Fluently add and subtract within 5.
	● Addition strategies
	  ● Count all to find the sum.
	  ● Use their knowledge of the count sequence to find certain sums.
	  ● Know certain sums.
	● Subtraction strategies
	  ● Represent all, then cross off or remove to find the difference.

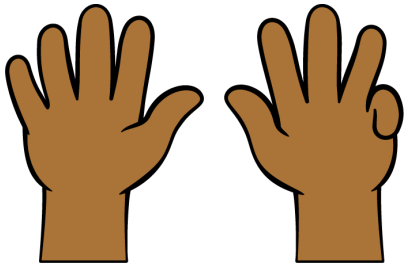
	● Use their knowledge of the count sequence to find certain differences. ● Know certain differences. ● Use understanding of 10 to work with numbers to 20. ● Given a number, find how many more are needed to make 10. ● Use 10 as a benchmark to estimate and count. ● Use 10 as a benchmark to compose and decompose numbers in different ways. ● Relate equations to compositions and decompositions of numbers.

Learning Plan

- Students consolidate and solidify their understanding of various concepts and skills on major work of the grade. They also continue to work toward fluency goals of the grade.

In this unit, students revisit major work and fluency goals of the grade, applying their learning from the year.
Section A focuses on concepts of counting and comparing. Section B highlights the presence of math in students' school community. Section C enables students to practice composing and decomposing numbers within 5, as well as adding and subtracting within 5. Section D focuses on composing and decomposing 10.
The sections in this unit are standalone sections, not required to be completed in order. The goal is to offer ample opportunities for students to integrate the knowledge they have gained and to practice skills related to the expected fluencies of the grade.





$10 = \underline{8} + \underline{2}$

The content here lays the foundation for grade 1, where students add and subtract fluently within 10 and count and compare larger quantities. Students will also learn about ten as a unit, which is the basis for understanding place value in the base-ten system.

Teacher Resources: Imagine Learning Classroom, Kendall Hunt Illustrative Math Site, Teacher Resource Books, Center Kits