



Park Hill School District

Building Successful Futures • Each Student • Every Day

Kindergarten Math Curriculum

Scope and Sequence:

Quarter	Instructional Units
1	Unit 1: Math Is... Unit 2: Numbers to 5 Unit 3: Numbers to 10
2	Unit 4: Sort, Classify, and Count Objects Unit 5: 2D Shapes Unit 6: Understand Addition Unit 7: Understand Subtraction
3	Unit 8: Addition and Subtraction Strategies Unit 9: Numbers 11-15 Unit 10: Numbers 16-19 Unit 11: 3D Shapes
4	Unit 12: Count to 100 Unit 13: Analyze, Compare, and Compose Shapes Unit 14: Compare Measurable Attributes

Unit 1: Math Is

Subject: Math

Grade: Kindergarten

Name of Unit: Math Is

Length of Unit: 10 days

Overview of Unit:

This unit replaces Unit 1: Math Is unit in your Teacher's Edition of Reveal.

In this unit, kindergarteners will begin their journey as mathematicians by building confidence, curiosity, and perseverance in math. They will engage in meaningful math routines, learn to embrace mistakes as opportunities to grow, and explore different ways to communicate and show their thinking. Through hands-on activities, discussions, and visual representations, students will develop a positive attitude toward math and see themselves as capable problem solvers.

Getting Ready for the Unit:

- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Create a blank number line (from sentence strips or something similar) with 20 boxes
- Print [Math Norms](#) posters and [Number Talks Hand Signals](#) poster
- Gather picture books that have a character encountering productive struggle
- Prepare math stations
- Prepare math manipulatives and tools
 - Connecting cubes, pattern blocks, attribute blocks, number or dot cards, a balance scale, dice

Essential Questions:

- What does it mean to be a mathematician?
- Why are mistakes important in math?
- How can we show our math thinking in different ways?
- How can we help each other learn math?

Enduring Understandings:

- Everyone is a mathematician, and math is something we all can learn.
- Struggling with math is a natural part of learning, and we can work through challenges with persistence and effort.
- Mistakes are an important part of learning and help us grow.
- Math ideas can be represented and communicated in different ways.
- Talking about math helps us understand and learn from each other.

Engaging Experience 1

Teaching Point: *Today I am going to teach you about our daily routines we will use as part of our math learning.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to start your calendar time using the routines in the table below.

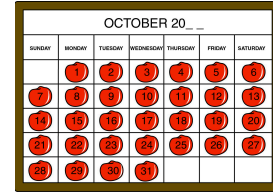
Daily Routines

Title: Monthly Calendar

Objective: To familiarize students with the structure and pattern of a calendar, and help students learn the names of the days of the week and the months of the year.

Description:

- Set up a reusable calendar in a permanent place in the classroom.
- Every day find the current day and have students read the day of week, the month, the date number, and the year.
- Help students become familiar with the days of the week and calendar language with a Days Board, i.e., Yesterday was _____. Today is _____. Tomorrow will be _____.



Title: Number of Days in School

Objective: To build one-to-one correspondence and to lay the foundation an understanding of place value.

Description:

- Have ready a 3-pocket chart and sticks or straws to count. The pockets should be labeled "Ones (1), Tens (10), Hundreds (100)."
- Each day add a stick or straw to the ones pocket. To regroup, band ten together and move to the tens pocket.
- Each day, count all the sticks already in the pockets and add one more.



Title: Number Line to 20

Objective: To establish the primacy of the numbers up to 20 for kindergarten

Description:

- Set up a number line to 20 in a permanent place in the classroom. Number line may be completed on day one, or may be added to each day for the first 20 days. If the number line is constructed on day one, have the rectangles for the numbers ready without numbers. On day one add number 1, day two add 2, etc., until the line is complete at 20.
- The number line can be drawn on a long piece of paper or a commercially available product.
- Add a number each day.



Title: Growing number line to 100

Objective: To practice the counting sequence to automaticity and begin to see the patterns of place value

Description:

- Set up a number line to 100 in a permanent place in the classroom. On day one, add "1."
- This number line will eventually become a hundreds chart. The number line may begin either as individual cards on the hundreds chart, as strips of numbers 1–10, 11–20, etc., or it may be a continuous line that builds to 100. On the 100th day, the line will be cut into 1–10 strips to create a hundreds chart.



Engaging Experience 2

Teaching Point: *Today I am going to teach you that math is all around us and it is important!*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to explain to students that math is not just in our books; it is in our toys, our snacks, even in the playground! Today, we are going to go on a math adventure and find numbers, shapes, and patterns all around us!

- Show students number cards 0-10 and shape cutouts (circle, square, triangle, rectangle, rhombus)
- Take students on a “Math Hunt” around the building looking for numbers, shapes and patterns.
 - Students could be tasked with finding specific numbers or shapes (i.e. “I saw the number 2 on the clock” or “Who can find something shaped like a rectangle?”)
- After the “Math Hunt” come back together and share discoveries.
 - Remind students that math is everywhere - at school, at home, at stores, and even outside. Encourage them to always be on the lookout for numbers, shapes, and patterns.
- [Song: Math Is All Around Us - Tune of Twinkle, Twinkle Little Star](#)
Math is here, math is there,
Numbers, shapes are everywhere!
Count the things that you can see,
Math is fun for you and me!

Engaging Experience 3

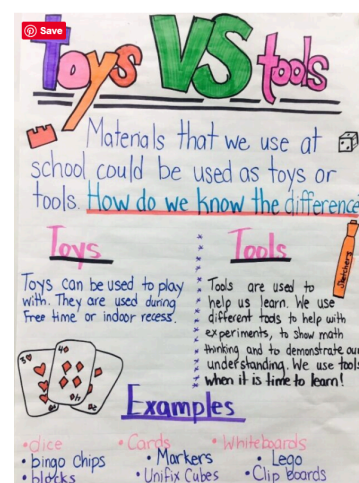
Teaching Point: *Today I am going to teach you about special tools that help us learn about numbers, shapes, patterns, and even measurement.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to create an anchor chart with students about math tools versus toys as you establish routines for getting out, using, and cleaning up the math manipulatives.

- Set up math stations and place students in small groups to explore different manipulatives such as pattern blocks, connecting cubes, attribute blocks, a balance scale, dice, or number cards.
- Teachers can give a brief explanation of how these tools are used in math to help us learn about numbers, shapes, patterns, measurement and even concepts like addition and subtraction.
- Place students in small groups and allow them time to explore the different manipulatives. Teachers could have a specific task for each station (i.e. create a pattern, match cubes to numbers, balance manipulatives on the scale, count pips on dice or play memory with number cards) or simply allow free exploration time.



- Song: [Math Tools! Tune of Mary Had a Little Lamb](#)
Math tools help us every day,
Every day, every day!
Math tools help us every day,
To show what we can do!

Engaging Experience 4

Teaching Point: *Today I am going to teach you about a new way to do math on your iPad called ALEKS Adventure.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this... Using a student iPad to model, show students how to launch ALEKS Adventure in the ConnectED tile in their Portal. Model to students how to get started on the ALEKS Diagnostic (should take 20-30 minutes). Before students start their own diagnostic, have students get their whiteboard and discuss why it's important to use their whiteboards as needed to help them as they work through math. Once completed, allow students to create their avatar!



Engaging Experience 5

Teaching Point: *Today I am going to teach you that you are a mathematician!*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to explain that a mathematician is someone who thinks about numbers, shapes, patterns, and problems.

- Give students examples of how they might use math everyday such as counting their toys, finding shapes in their snacks or road signs, spotting a pattern or even making one, or talking about the size of things.
 - Point out that doing these things makes them a mathematician.
- [Give students time to draw a picture of themselves “doing” math.](#)
- After students have completed their pictures of themselves as mathematicians, come together and share their drawings and the types of math tasks they already do at school or at home.
 - Teachers might want to keep these to come back and revisit later in the year.
- Song: [Mathematician Song! Tune of Mary Had a Little Lamb](#)
I can count and measure too,
I see shapes in what I do!
I use math in many ways,
I am smart every day!

Engaging Experience 6

Teaching Point: *Today I am going to teach you that sometimes in math things are hard, but we have to push through. This is called productive struggle.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to read a book about productive struggle, such as *The Struggle Bus*, *The Magical Yet*, *Taco Falls Apart*, *Mel Fell*, or a book of your own choosing.

- Next, show a [collage](#) of pictures of various people or animals having to really work hard at something (found in Schoology). Ask them what they notice about the pictures or what is happening that was “hard” for the person or animal.
- Ask students to share about a time that it was hard for them to learn or do something (This does NOT have to be math related). If you choose, students can draw a picture of a time they struggled to learn or do something.
- [A Time I Struggled Template](#)
- Song: [The Struggle Song - Tune of Twinkle Twinkle](#)

When it's tricky, when it's tough,
I won't say, "I've had enough!"
I will try and try again,
Ask for help and use my brain.

Mistakes help my brain to grow,
Learning happens nice and slow.
I won't quit, I'll take my time,
Step by step, I'll be just fine!

Suggestion: If you plan to do math stations, you could start introducing those to students throughout this week. Students can then practice stations at the end of each lesson.

Engaging Experience 7

Teaching Point: *Today I am going to teach you that mistakes help us grow.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to ask students if they have ever made a mistake and give them time to share about the mistakes they have made. Explain that mistakes are a GOOD thing because they really do help our brains grow.

- Draw or display a picture of a small brain and tell students that every time we make a mistake our brains get a workout and grow stronger, just like our muscles grow stronger when we run and play. Draw little squiggle around the brain to show it growing.
- Display a number sequence (0-5 or 0-10) on the board and have a number out of place. Ask students to count the numbers. As they count, say “OOPS! that numeral does not match the numbers we are saying aloud as we count. It looks like I made a mistake. We can fix it” See if someone can help you fix the mistake.
 - You can model a couple other mistakes in math such as forming a numeral incorrectly, putting the wrong shape in a pattern, sorting colors incorrectly.
 - Model for students a positive math mindset by teaching them to say things like, “I can try again. I am still learning. Mistakes help my brain grow.”
- Remind students that we will all make mistakes in math this year and that is OK because we are helping to grow our brains.

- Song: [The Mistakes Song! Tune of The Itsy Bitsy Spider](#)
When I make mistakes, my brain begins to grow,
I learn new things and take it nice and slow!
I try again, I never say 'I'm through!'
Making mistakes helps me learn what to do!

Suggestions: Hang up your math norm poster “Mistakes help us grow” somewhere that will be visible to the students during your math lessons this year.

Engaging Experience 8

Teaching Point: *Today I am going to teach you that as mathematicians we will talk to each other every day about math.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to complete the Number Routine from Reveal Lesson 1-4. You may want to introduce the number routine [hand signals](#) or talking stems such as, “I think...,” “I notice...,” “I wonder...,” “I can show you how...”.

Ask the following questions.

- What do you notice about the picture?
- How could we sort these objects?
- How many buckets (or trucks, boats, yellow things, etc) do you see?
- Are there more shovels or buckets? How do you know?



Suggestion: Hang up your math norm poster “We talk to each other about math” somewhere that will be visible to the students during your math lessons this year.

Engaging Experience 9

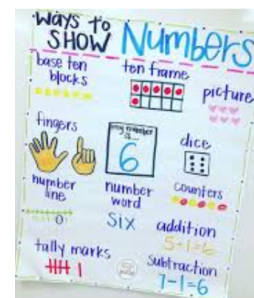
Teaching Point: *Today I am going to teach you that we can show math in different ways.*

Suggested Length of Time: 2 days

Detailed Description/Instructions:

One way to do this is to explain to the students that there are many ways to show numbers in math. We can use pictures, numbers, objects, and even words! Create an anchor chart with students about ways to show numbers.

- Let’s say we have 3 apples—how could we show that in different ways?" Elicit responses from students and record them using pictures, objects (real or pretend), and words.
- Have students practice showing numbers in different ways on whiteboards or independently if they are ready to do so.



Another way to do this is to explain to the students that there are many ways to sort objects. Create an anchor chart with students about ways to sort objects. Model sorting a group of objects in multiple ways (size, shapes, color, type, etc.). You could play “Guess My Rule” and have the students figure out your sorting rule. Then give students or groups of students a set of objects and allow them to sort them however they choose. Ask groups to share.



Suggestion: Hang up your math norm poster “We can show math in different ways” somewhere that will be visible to the students during your math lessons this year.

Unit 2: Numbers to 5

Subject: Math

Grade: Kindergarten

Name of Unit: Numbers to 5

Length of Unit: 15 days

Overview of Unit:

In this unit, students will learn to count objects to 5 by painting each object with one number. They will understand that each number in the counting sequence represents a quantity one greater than the preceding number. Students will represent numbers to 5 with a written numeral and groups with no objects with the numeral 0.

Students will also compare the number of objects in two groups to determine if the groups are equal, or if one group is greater. Students will compare by matching and counting the objects. They will use the terms equal to, greater than, and less than.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Create a blank number line (from sentence strips or something similar) with 20 boxes
- Prepare math station game boards and cards
- Prepare [Five Frames](#)
- Prepare math manipulatives and tools
 - Connecting cubes to 5, counters to 5, number cards 0-10, bags for Ignite, and dot cards to 5

Essential Questions:

- How do you count, show, compare, and write numbers?
- How do you use strategies to count a group of objects?
- How do you know if one group has more or less than another group?

Enduring Understandings:

- Counting tells how many are in a set, regardless of their arrangement or the order in which they were counted.
- There is a unique symbol that goes with each number word.
- If you compare two groups of objects and the number of objects match, the groups have an equal (same) number of objects. If one group has items left over, that group has more (greater) objects. The other group has less (fewer) objects.

Priority Standards:

- **K.NS.B.5** Say the number names when counting objects, in the standard order, pairing objects with one and only one
- **K.NS.B.8** Recognize, without counting, the quantity of objects in groups arranged in common patterns (up to 5 objects).
- **K.NS.B.9** Demonstrate that a number can be used to represent “how many” are in a set.
- **K.NS.C.10** Compare two or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than or less than the other.

Supporting Standards:

- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20.
- **K.NS.B.6** Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.
- **K.NS.B.7** Demonstrate that each successive number name refers to a quantity that is one larger than the previous number.
- **K.NS.C.11** Compare two numerals, between 1 and 10, and determine which is more than or less than the other.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.5	The number names, when counting objects, using one-to-one correspondence	Accurately count a set of objects Demonstrate one-to-one correspondence between counting words and objects Say the number names in sequence	Remember	2
K.NS.B.8	Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns.	Subitize a quantity up to and including five objects.	Understand	1
K.NS.B.9	A number can be used to represent “how many” are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2
K.NS.C.10	Quantities and numerals can be compared.	Count and compare two or more sets of objects Identify which set is equal to, more than, or less than the other.	Analyze	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
- Unit 2 Readiness Diagnostic - Unit 2 Math Probe - Exit Ticket - Daily Work	- Unit 2 Review - Unit 2 Fluency Practice - Unit 2 Performance Task - Unit 2 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	One (1)
Explain	Two (2)
Model	Three (3)
Order	Four (4)
Example	Five (5)
Represent	Zero (0)
Describe	One More
Compare	Equal, Equal Groups
Relate	Matching
	Fewer
	Greater Than
	Less Than
	More

Math Language Routines:

- ML2: Collect and Display
- ML4: Information Gap
- ML5: Co-Craft Questions
- ML8: Discussion Supports

Number Routines:

- What Did You See?
- Would You Rather?

Sense-Making Routines:

- Notice and Wonder

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station Digital Station Application Station	 Game Station Students examine numbers to 5.  Digital Game Bunny Times (Count to 5) Students count to 5. Have students complete at least one of the Use It! activities for this unit.  STEM Project Card Movement of Cars Students build car ramps and examine how different materials affect how the car moves.  Connection Card Musical Chairs Students play musical chairs, counting the number of students and chairs.  Real World Card A Farm Maze Students describe how to move in the maze to see all the animals.	- Counting Race 2-1 - Counting Puzzles Task Cards 2-2 - Counting Race 2-3 - Counting Clip Task Cards 2-4 - Wild Zero Showdown 2-5 - Counting Clip Task Cards 2-6 - Compare Concentration 2-7 - Greater Than Showdown 2-8 - Number Showdown 2-9 2-1 2-4 2-8 2-4

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
- Targeted Intervention - Small Group - Take Another Look - Reinforce Understanding - ALEKS Adventure	- Practice It - Own It - Interactive Additional Practice - Spiral Review Practice - Additional Practice - ALEKS Adventure	- Use It! - Stem Adventure - Extend Thinking - ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore, show and compare numbers.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Tall Towers* Activity.

Another way to do this is to use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Tall Towers* Activity.

Suggestions: One suggestion is to prepare ahead of time by assembling the IGNITE cube game bags, including red, green, yellow, and purple cubes, along with two counters. If you do not have purple cubes, consider using blue/pink. For optimal engagement, it's recommended to introduce the game as a whole group activity, then have students complete it in pairs. Consider pairing nonreaders with readers to foster collaboration and support with reading the game board.

Bloom's Levels: Apply

DOK: 2

Engaging Experience 1: 2-1 Counting 1, 2, and 3.

Teaching Point: *Today I am going to teach you how to count up to 3 objects and to explain how to count up to 3 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-1 and have students explore how to count a group with up to 3 objects.

Another way to do this is to use the Guided Exploration 2-1 and have students begin to understand that counting tells how many are in a group.

Suggestions: If you choose to do the guided exploration, have students place physical counters on the worksheet to help them count how many are in each group. It is also beneficial to provide number writing practice in advance.

Bloom's Levels: Remember

DOK: 1

Engaging Experience 2: 2-2 Represent 1, 2, and 3

Teaching Point: *Today I am going to teach you how to show numbers 1, 2, and 3 and to explain how to show numbers 1, 2, and 3.*

Suggested Length of Time: 1 day

Standards Addressed**Priority:** K.NS.B.9**Supporting:** K.NS.B.6**Detailed Description/Instructions:**

One way to do this is to use the Activity-Based Exploration 2-2 and have students explore how to count and represent a group of up to 3 objects with a number. Students will also explore how to count objects in different arrangements.

Another way to do this is to use the Guided Exploration 2-2 and have students begin to count in different arrangements. They show the number of objects with a model and a numeral.

Suggestions: It is helpful to embed and introduce a [five frame](#) in your lesson. It is also beneficial to provide number writing practice in advance.

Bloom's Levels: Understand**Webb's DOK:** 2**Engaging Experience 3:** 2-3 Count 4 and 5.

Teaching Point: *Today I am going to teach you how to count objects to 5 and to explain how to count objects to 5.*

Suggested Length of Time: 1 day**Standards Addressed****Priority:** K.NS.B.5, K.NS.B.9**Supporting:** K.NS.B.6**Detailed Description/Instructions:**

One way to do this is to use the Activity-Based Exploration 2-3 and have students explore how to count a group with up to 5 objects.

Another way to do this is to use the Guided Exploration 2-3 and have students count to find how many.

Suggestions: Continue using the five frames. It is also beneficial to provide number writing practice in advance.

Bloom's Levels: Remember**DOK:** 1**Engaging Experience 4:** 2-4 Represent 4 and 5.

Teaching Point: *Today I am going to teach you how to show numbers 4 and 5 and to explain how to show numbers 4 and 5.*

Suggested Length of Time: 1 day**Standards Addressed****Priority:** K.NS.B.9**Supporting:** K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-4 and have students explore how to count and represent a group of up to 5 objects with a number. Students will also explore how to count objects in different arrangements.

Another way to do this is to use the Guided Exploration 2-4 and have students show a number of items in a group.

Suggestions: Continue using the five frames. It is also beneficial to provide number writing practice in advance. Number writing pages can be found in Schoology. For the guided practice, it is helpful to have students use cubes to cover and count the animals.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 5: 2-5 Represent 0

Teaching Point: *Today I am going to teach you how to identify a group of 0 and to explain how to identify 0.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6, K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-5 and have students explore the concept of zero.

Another way to do this is to use the Guide Exploration 2-5 and have students begin to understand that a group with no objects has 0 objects.

Suggestions: YouTube video: [This is the Number Zero](#) by Jack Hartmann. If time allows, combine the Guided Exploration with the Activity-Based Exploration for this unit.

Bloom's Levels: Understand

Webb's DOK: 1

Engaging Experience 6: 2-6 Numbers to 5

Teaching Point: *Today I am going to teach you how to identify a number that is one more and to explain how to identify the number that is one more.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6, K.NS.B.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-6 and have students explore the concept of one more when counting numbers 1 to 5.

Another way to do this is to use the Guided Exploration 2-6 to have students begin to understand what it means to add one more.

Suggestions: For this lesson, it is helpful to combine the Activity-Based and Guided Exploration if time allows using the “One More” PDF from the Teaching Resources. It is also beneficial to provide number writing practice in advance.

Bloom’s Levels: Understand

Webb’s DOK: 2

Engaging Experience 7: 2-7 Equal Groups to 5

Teaching Point: *Today I am going to teach you how to tell if groups are equal by matching the objects in the groups.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.8, K.NS.B.9, K.NS.C.10

Supporting: K.NS.C.11

Detailed Description/Instructions:

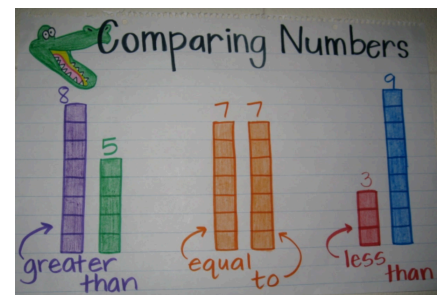
One way to do this is to use the Activity-Based Exploration 2-7 and have students explore one-to-one matching of objects to determine equal groups.

Another way to do this is to use the Guided Exploration 2-7 and have students match objects in two groups to determine whether the number of objects in one group is equal to the number of objects in the other groups.

Suggestions: For this lesson, it is helpful to combine the Activity-Based and Guided Exploration if time allows. It is also helpful to begin creating an anchor chart with the vocabulary words: greater, less, and equal.

Bloom’s Levels: Apply

Webb’s DOK: 2



Engaging Experience 8: 2-8 Greater Than or Less Than

Teaching Point: *Today I am going to teach you how you can use one to one matching to determine if the number of objects in one group is greater than or less than the number of objects in another group.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.C.10

Supporting: K.NS.B.9

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-8 and have students explore one-to-one matching of objects to determine if a group is greater than or less than another group.

Another way to do this is to use the Guided Exploration 2-8 to have students begin to understand that groups can be compared by matching the objects in each group. The groups can then be described by using the words greater than and less than.

Suggestions: If you decide to complete this lesson using the Guided Exploration, it is helpful to first give each student 5 cubes and have them build a number between 1 and 5. Then, pair them up with a partner to compare whose number is greater, less, or equal.

Bloom's Levels: Apply

Webb's DOK: 1

Engaging Experience 9: 2-9 Compare Numbers to 5

Teaching Point: *Today I am going to teach you to use counting to determine if the number of objects in one group is greater than, less than, or equal to the number of objects in another group and to explain how counting helped you make this determination.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.NS.C.10

Supporting: K.NS.B.6, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 2-9 and have students explore how to compare groups by counting the objects in each group.

Another way to do this is to use the Guided Exploration 2-9 to remind students that groups can be compared by matching the objects in each group. Explain that counting can also be used to compare two groups. Discuss how we can use matching and counting strategies to know if one group has more objects than another group.

Suggestions: Print Dot Cards 1-5 PDF front the Teaching Resources to use with partners to compare numbers. You can teach students the game of [Compare](#).

Bloom's Levels: Apply

Webb's DOK: 2

Math Probe: Who Has More Stickers?

Teaching Point: *Today we are going to count groups of stickers and circle the group that has more.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to compare the counts of objects with varied arrangements, and interpret the meaning of "more."

Another way to do this is to complete the Math Probe and focus on Unit 2 vocabulary.

Bloom's Levels: Understand

Webb's DOK: 2

Unit 2 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of numbers to 5 to review what we have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.8, K.NS.B.9, K.NS.C.10

Supporting: K.NS.A.4, K.NS.B.6, K.NS.B.7, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing a number.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 2 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of numbers to 5 to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.NS.B.5, K.NS.B.8, K.NS.B.9, K.NS.C.10

Supporting: K.NS.A.4, K.NS.B.6, K.NS.B.7, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 2 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 2 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Scenario - Unit 2

Automotive Engineer Number Challenge

In the **Automotive Engineer Number Challenge**, students become engineers designing a car. They will count car parts like wheels (paper plates/buttons), doors (small index cards), and windows (post it notes) up to 5, show the numbers using objects like counters or blocks, and compare which car design has more, less, or the same number of parts. Students will work in pairs or small groups, counting and comparing their car designs before sharing their findings with the class.

****Example Recording Sheet Found on Schoology****

Unit 3: Numbers to 10

Subject: Math

Grade: Kindergarten

Name of Unit: Numbers to 10

Length of Unit: 18 days

Overview of Unit:

In this unit, students will count objects shown in various arrangements, determine which numeral represents a group, and understand that each number in the counting sequence represents a quantity one greater than the preceding number. Additionally, students will write a numeral to represent the total number of objects in a group.

Students will also compare the number of objects in two groups by matching and counting. They will then compare two quantities presented as numerals using the terms equal to, greater than, and less than.

Getting Ready for the Unit:

- Watch the *Expert Insights* videos to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Create a blank number line (from sentence strips or something similar) with 20 boxes
- Prepare math station game boards and cards.
- Prepare [Five Frames](#) and [Ten Frames](#)
- Prepare math manipulatives and tools
 - Connecting cubes to 10, counters to 10, number cards 0-10, and dot cards to 10

Essential Questions:

- How do you count, show, compare, and write numbers?
- How do you count a group of objects?
- How do you know if one group has more than another group?

Enduring Understandings:

- Counting tells how many are in a set, regardless of their arrangement or the order in which they were counted.
- There is a unique written symbol that goes with each number word.
- In a pair of numbers, the number that shows more is greater. The number that shows fewer is less. Numbers that are the same are equal.

Priority Standards:

- **K.NS.B.5** Say the number names when counting objects, in the standard order, pairing objects with one and only one
- **K.NS.B.9** Demonstrate that a number can be used to represent “how many” are in a set.
- **K.NS.C.10** Compare two or more sets of objects (up to 10 objects in each group) and identify which set is equal to, more than or less than the other.

Supporting Standards:

- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20.
- **K.NS.B.6** Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.
- **K.NS.B.7** Demonstrate that each successive number name refers to a quantity that is one larger than the previous number.
- **K.NS.C.1** Compare two numerals, between 1 and 10, and determine which is more than or less than the other.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.5	The number names, when counting objects, using one-to-one correspondence	Accurately count a set of objects Demonstrate one-to-one correspondence between counting words and objects Say the number names in sequence	Remember	2
K.NS.B.9	A number can be used to represent "how many" are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2
K.NS.C.10	Quantities and numerals can be compared.	Count and compare two or more sets of objects Identify which set is equal to, more than, or less than the other.	Analyze	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 3 Readiness Diagnostic ● Unit 3 Math Probe ● Exit Ticket ● Daily Work	● Unit 3 Review ● Unit 3 Fluency Practice ● Unit 3 Performance Task ● Unit 3 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	Six (6)
Explain	Seven (7)
Model	Eight (8)
Order	Nine (9)
Represent	Ten (10)
Compare	One More
Describe	Equal
Place	Fewer
Understand	More
Point	Equal Groups
	Less Than
	Greater Than

Math Language Routines:

- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap
- MLR8: Discussion Supports
- MLR1: Stronger and Clearer Each Time

Number Routines:

- Counting Things
- What Did You See?
- Find the Pattern, Make a Pattern

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: How are they the same? How are they different?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

	Activity	Description	Use After Lesson
Game Station	Game Station	Students build proficiency with numbers to 10.	
		• Same Amount Task Cards	3-1
		• Count to 6 and 7 Task Cards	3-2
		• Same Amount Sort	3-3
		• Count to 8 and 9 Match	3-4
		• Same Amount Tic Tac Toe	3-5
		• Count to 10 Race	3-6
		• Count to 10 Race	3-7
		• Count and Compare Showdown	3-8
		• Number Compare Showdown	3-9
		• Count and Write Task Cards	3-10
		• Count and Write Bingo	3-11
		• Count and Write Race	3-12
Digital Station	Digital Game	Penguin Chili Students practice counting to 10.	3-1
			
Have students complete at least one of the Use It! activities for this unit.			
Application Station	STEM Project Card	Growing Bean Seeds Students conduct a science experiment to see how bean seeds grow.	3-12
			
	Connection Card	My Food Plate Students create their own meal and count the number of items on their plate.	3-12
			
Application Station	Real World Card	Be Safe! Students make a poster about how to work safely online.	3-1
			

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
- Targeted Intervention - Small Group - Take Another Look - Reinforce Understanding - ALEKS Adventure	- Practice It - Own It - Interactive Additional Practice - Spiral Review Practice - Additional Practice - ALEKS Adventure	- Use It! - Stem Adventure - Extend Thinking - ALEKS Adventure

Diagnostic and IGNITE!

Teaching Point: *Today we are going to count, show, compare, and write numbers.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *How Many Can You Find?* Activity.

Another way to do this is to use the Readiness Diagnostic online, then move on to the STEM in Action videos, and finally engage students with the *How Many Can You Find?* Activity.

Bloom's Levels: Analyze

Webb's DOK: 3

Engaging Experience 1: 3-1 Count 6 and 7

Teaching Point: *Today I am going to teach you how to count objects to 7 and to explain how to count objects to 7.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-1 and have students explore how to count a group with up to 7 objects.

Another way to do this is to use the Guided Exploration 3-1 and have students count up to 7 objects to find how many.

Suggestions: Create a bag/container with 7 cubes inside. You can continue to use these containers by adding 1-2 cubes each lesson.

Bloom's Levels: Remember

Webb's DOK: 2

Engaging Experience 2: 3-2 Represent 6 and 7

Teaching Point: *Today I am going to teach you how to show numbers 6 and 7 and to explain how to show numbers 6 and 7.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-2 to explore how to count and represent a group of up to 7 objects with a number. Students also explore how to count objects in different arrangements.

Another way to do this is to use the Guided Exploration 3-2 to have students count up to 7 objects and represent the numbers of objects counted with a numeral.

Suggestions: It is helpful to have 7 connecting cubes ready and a [ten frame](#) to use. If time allows, combine the Activity-Based Exploration and Guided Exploration for this lesson.

Bloom's Levels: Understand

Webb's DOK: 1

Engaging Experience: 3-3 Count 8 and 9

Teaching Point: *Today I am going to teach you how to count up to 9 objects and to explain how to count up to 9 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-3 to have students explore how to count a group with up to 9 objects.

Another way to do this is to use the Guided Exploration 3-3 to have students count up to 9 objects to find how many.

Bloom's Levels: Remember

Webb's DOK: 2

Engaging Experience: 3-4 Represent 8 and 9

Teaching Point: *Today I am going to teach you how to show numbers 8 and 9 and to explain how to show numbers 8 and 9.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-4 to explore how to count and represent a group of up to 9 objects with a number. Students also explore how to count objects in different arrangements.

Another way to do this is to use the Guided Exploration 3-4 to have students count up to 9 objects and represent groups of objects with a numeral.

Suggestions: It is helpful to have 9 connecting cubes ready and a [ten frame](#) to use. If time allows, combine the Activity-Based Exploration and Guided Exploration for this lesson.

Bloom's Levels: Understand

Webb's DOK: 1

Engaging Experience: 3-5 Count 10

Teaching Point: *Today I am going to teach you how to count up to 10 objects and to explain how to count up to 10 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-5 to have students explore how to count a group with up to 10 objects.

Another way to do this is to use the Guided Exploration 3-5 to have students understand that counting tells how many are in a group.

Suggestions: It is beneficial to incorporate a [ten frame](#) into your practice even if you choose to do the Guided Exploration.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience: 3-6 Represent 10

Teaching Point: *Today I am going to teach you how to show the number 10 and to explain how to show the number 10.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-6 to explore how to count and represent a group of up to 10 objects with a number. Students also explore how to count objects in different arrangements.

Another way to do this is to use the Guided Exploration 3-6 work page and have students count objects up to 10 in different arrangements and represent the group with a numeral.

Suggestions: It is helpful to have 10 connecting cubes ready and a [ten frame](#) to use. If time allows, combine the Activity-Based Exploration and Guided Exploration for this lesson.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience: 3-7 Numbers to 10

Teaching Point: *Today I am going to teach you how to identify the number that is one more and to explain how to identify the number that is one more.*

Suggested Length of Time: 1 day

Standards Addressed**Priority:** K.NS.B.9**Supporting:** K.NS.B.6**Detailed Description/Instructions:**

One way to do this is to use the Activity-Based Exploration 3-7 to have students explore the concept of one more when counting numbers 1 to 10.

Another way to do this is to use the Guided Exploration 3-7 to help students understand that each number in the counting sequence represents one more than the preceding number.

Suggestions: If time allows, combine the Activity-Based Exploration and the Guided Exploration for this lesson. Have the One More to 10 Work Page printed and ready.

Bloom's Levels: Understand**Webb's DOK:** 2**Engaging Experience:** 3-8 Compare Objects in Groups

Teaching Point: *Today I am going to teach you to use matching and counting to determine if the number of objects in one group is greater than or less than the number of objects in another group and to explain how to compare the number of objects in two groups by matching or counting the objects in each group.*

Suggested Length of Time: 1 day**Standards Addressed****Priority:** K.NS.B.9, K.NS.C.10**Supporting:** K.NS.B.6, K.NS.C.11**Detailed Description/Instructions:**

One way to do this is to use the Activity-Based Exploration 3-8 to have students explore matching and counting of objects to determine if a group is *greater than, less than* or *equal* to another group.

Another way to do this is to use the Guided Exploration 3-8 to have students use one-to-one correspondence and counting to compare two groups.

Bloom's Levels: Apply**Webb's DOK:** 3**Engaging Experience:** 3-9 Compare Numbers

Teaching Point: *Today I am going to teach you how to compare two numbers and to explain how to use counting to compare two numbers.*

Suggested Length of Time: 1 day**Standards Addressed****Priority:** K.NS.C.10**Supporting:** K.NS.B.6, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use Activity-Based Exploration 3-9 to have students explore how to compare two numbers.

Another way to do this is to use the Guided-Exploration 3-9 to help students understand that two numbers can be compared using the counting sequence.

Suggestions: It is helpful to combine the Activity-Based Exploration with the Guided Exploration. You will want to have Number Cards 0-10 for each pair of students so they can compare their cards.

Bloom's Levels: Apply

Webb's DOK: 2

Math Probe: Compare Numbers

Teaching Point: *Today we are going to see two numerals and we will circle the one that represents the greater number.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to compare two numerals and explain why the circled numeral represents the greater number.

Another way to do this is to complete the Math Probe and focus on Unit 3 vocabulary.

Bloom's Level: Understand

Webb's DOK: 2

Engaging Experience: 3-10 Write Numbers to 3

Teaching Point: *Today I am going to teach you how to write numbers to 3 and explain how to write numbers to show how many.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-10 to have students explore writing the numerals 1, 2, and 3.

Another way to do this is to use the Guided Exploration 3-10 to have students write the numerals 1, 2, and 3 to show how many are in a group.

Suggestions: It is helpful to teach your students a special number writing chant for each number. It is also helpful to use whiteboards to practice writing numbers.

Bloom's Levels: Remember

Webb's DOK: 2

Engaging Experience: 3-11 Write Numbers to 6

Teaching Point: *Today I am going to teach you how to write numbers to 6 and explain how to write numbers to show how many.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-11 to have students explore writing the numerals 4, 5, and 6.

Another way to do this is to use the Guided Exploration 3-11 to have students write the numerals 4, 5, and 6 to show how many are in a group.

Suggestions: It is helpful to teach your students a special number writing chant for each number. It is also helpful to use whiteboards and dry erase markers to practice writing numbers.

Bloom's Levels: Remember

Webb's DOK: 2

Engaging Experience: 3-12 Write Numbers to 10

Teaching Point: *Today I am going to teach you how to write numbers to 10 and explain how to write numbers to show how many.*

Suggested Length of Time: 1 session

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 3-12 to have students explore writing the numerals 7, 8, 9, and 10.

Another way to do this is to use the Guided Exploration 3-12 to have students write the numerals 7, 8, 9, and 10 to show how many are in a group.

Suggestions: It is helpful to teach your students a special number writing chant for each number. It is also helpful to use whiteboards and dry erase markers to practice writing numbers.

Bloom's Levels: Remember

Webb's DOK: 2

Unit 3 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of numbers to 10 to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9, K.NS.C.10

Supporting: K.NS.A.1, K.NS.A.2, K.NS.A.4, K.NS.B.6, K.NS.B.7, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing a number.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 3 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of numbers to 10 to complete our unit assessment.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9, K.NS.C.10

Supporting: K.NS.A.4, K.NS.B.6, K.NS.B.7, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 3 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 3 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Scenario - Unit 3

Statistician's Number Safari

In the Statistician's Number Safari, students will become statisticians exploring the "wild" to find, count, and compare numbers up to 10. They will search for number cards, count objects like cubes or animals, and record their findings. After gathering their discoveries, students will share their data with the class, comparing quantities to determine which group has more, less, or equal amounts. This adventure encourages teamwork, data collection, and statistical comparisons in a fun and interactive way!

****Example Recording Sheet Found on Schoology****

Unit 4: Sort, Classify, and Count Objects

Subject: Math

Grade: Kindergarten

Name of Unit: Sort, Classify, and Count Objects

Length of Unit: 8 days

Overview of Unit:

In this unit, students will recognize attributes based on color, shape, and size and will use these attributes to describe objects. Students will create groups of objects based on the object's attributes. They will then count to determine how many objects are in a group, understanding that the last number represents the total number of objects, and sort groups according to the number of objects.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have away to track number of days in school by ones, tens and hundreds
- Print Number Writing pages
- Prepare math station game boards and cards.
- Prepare [2-Part Sorting Mat](#) and [3-Part Sorting Mat](#)
- Prepare math manipulatives and tools
 - Attribute blocks, connecting cubes to 10

Essential Questions:

- How can we use attributes to describe objects?
- How can we use attributes to sort a collection of objects?

Enduring Understandings:

- Objects can be sorted based on attributes such as shape, color, or size.
- Objects can be sorted in more than one way and can fit into more than one category.
- Classifying helps us compare and contrast objects.
- Attributes help us understand and organize the world.

Priority Standards:

- **K.NS.B.8** Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns.
- **K.NS.B.9** Demonstrate that a number can be used to represent “how many” are in a set.
- **K.NS.C.10** Compare two or more sets of objects and identify which set is equal to, more than or less than the other
- **K.DS.A.2** Compare category counts, using appropriate language.

Supporting Standards:

BOE Approved 6-12-25

- **K.DS.A.1** Classify objects into given categories; count the number of objects in each category.
- **K.NS.B.6** Demonstrate that the last number said tells the number of objects, in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
- **K.NS.C.11** Compare two numerals, between 1 and 10, and determine which is more than or less than the other.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.8	Recognize, without counting, the quantity of groups up to 5 objects arranged in common patterns.	Subitize a quantity up to and including five objects.	Understand	1
K.NS.B.9	A number can be used to represent "how many" are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2
K.NS.C.10	Quantities and numerals can be compared.	Count and compare two or more sets of objects Identify which set is equal to, more than, or less than the other.	Analyze	3
K.DS.A.2	Objects can be classified and the number of objects in each category can be counted and compared	recognize attributes group objects based on attributes explain the sorting process Compare category counts using greater or more than, less of fewer than, and equal to	Apply	2

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 4 Readiness Diagnostic ● Unit 4 Math Probe ● Exit Ticket ● Daily Work	● Unit 4 Review ● Unit 4 Fluency Practice ● Unit 4 Performance Task ● Unit 4 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Compare	Alike
Describe	Different
Group	Sort
Similar	Fewer
Count	More
Explain	Shape
	Size
	Sort

Math Language Routines:

- MLR2: Collect and Display
- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap

Number Routines:

- Counting Things
- Find the Pattern, Make a Pattern

Sense-Making Routines:

- Notice and Wonder
- Which Doesn't Belong?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station	Game Station 	Students build proficiency with working with objects. • Alike and Different Concentration 4-1 • Animal Groups Sort 4-2 • Sort and Count 4-3 • Sort 2-Dimensional Shapes 4-4
	Digital Game 	Apples and Oranges Students compare numbers to 10. 4-1
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card 	Dinosaur Footprints Students sort pictures of dinosaur footprints and think about how the animals might have moved. 4-4
Application Station	Connection Card 	Friendship Bracelets Students sort beads and then make bracelets from the beads. 4-2
	Real World Card 	A Dinosaur Dig Students give directions to move around a dinosaur-themed grid. 4-1

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Target Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to use attributes to sort a collection of objects.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Filling the Cupboard* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Filling the Cupboard* Activity.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 1: 4-1 Alike and Different

Teaching Point: *Today I am going to teach you how to identify and explain how objects are alike and different.*

Suggested Length of Time: 1 day

Standards Addressed

- **Priority:** K.NS.B.8, K.NS.B.9
- **Supporting:** K.NS.B.6, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 4-1 to allow students to explore the concept of alike and different.

Another way to do this is to use the Guided Exploration 4-1 and have students begin to describe the objects by specific attributes such as color, size, and shape, and look for attributes that are the same, or alike, and different.

Suggestions: One way to do this is to place students in groups with attribute blocks, cubes, and blocks. Have students first sort by size, then by color, then by shape.

Bloom's Levels: Understand

Webb's DOK: 3

Engaging Experience 2: 4-2 Sort Objects into Groups

Teaching Point: *Today I am going to teach you to recognize different attributes while sorting objects into groups. We will also explain how you sorted each group.*

Suggested Length of Time: 1 day

Standards Addressed

- Priority:** K.NS.B.8, K.DS.A.2
- Supporting:** K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 4-2 and have students identify attributes and sort objects into groups according to attributes.

Another way to do this is to use the Guided Exploration 4-2 and have students apply the skills they used to describe attributes of objects to sorting objects by attribute. Students will become aware that objects can be sorted according to more than one attribute, which helps them develop an understanding that multiple solution strategies are acceptable in mathematics.

Suggestions: You will need to print the “2-Part Sorting” Mat PDF from the Teaching Resources. After groups have a chance to explore; have groups create a sort. Take turns sharing the group’s sort and have the class decide how the group created their sort.

Bloom’s Levels: Understand

Webb’s DOK: 2

Engaging Experience 3: 4-3 Count Objects in Groups

Teaching Point: *Today I am going to teach you how to sort and count objects and explain how to count sorted groups of objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.DS.A.2

Supporting: K.NS.B.6, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 4-3 to allow students to sort objects into groups and count to determine the number of objects in each group.

Another way to do this is to use the Guided Exploration 4-3 and guide students in counting the objects in each sorted group. Discuss how the objects were sorted and ask students the number of objects in each group.

Bloom’s Levels: Understand

Webb’s DOK: 2

Unit 4 Math Probe

Teaching Point: *Today we are going to categorize, by total number or count, a group of objects with different sizes, colors, and arrangements.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to give students the Unit 4 Math Probe and have them cut out the cards and glue them onto the Math 4 Probe Supporting Materials Sheet.

Another way to do this is to complete the Math Probe and focus on Unit 4 vocabulary.

Suggestions: Students will cut out the pieces in the workbook and use [THIS](#) sorting mat to glue their pieces rather than the page in the student edition activity book.

Bloom’s Levels: Apply

Webb’s DOK: 2

Engaging Experience 4: 4-4 Describe Groups of Objects

Teaching Point: *Today I am going to teach you how to describe sorted groups by attribute and numbers of objects in each group, as well as compare the groups based on attributes and category counts.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.8, K.NS.C.11

Supporting: K.NS.B.6, K.NS.C.10, K.DS.A.1

Detailed Description/Instructions:

One way to do this is use the Activity-Based Exploration 4-4 and have students sort, count, and compare a group of pattern blocks.

Another way to do this is to use the Guided Exploration 4-4 and have students learn how to count and compare the number of objects in sorted groups.

Suggestion: You will need to print the “3-Part Sorting” Mat PDF from the Teaching Resources

Bloom’s Levels: Analyze

Webb’s DOK: 2

Unit 4 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of sorting objects using their attributes, as well as classifying, counting, and comparing groups of objects.*

Suggested Length of Time: 1 session

Standards Addressed

Priority: K.NS.B.8, K.NS.B.9, K.NS.C.10, K.DS.A.2

Supporting: K.DS.A.1, K.NS.B.6, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with sorting, classifying, and counting sets of objects.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom’s Levels: Apply

Webb’s DOK: 3

Unit 4 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of sorting, classifying and counting groups of objects to complete our unit assessment.*

Suggested Length of Time: 1-2 days.

Standards Addressed

Priority: K.NS.B.8, K.NS.B.9, K.NS.C.10, K.DS.A.2

Supporting: K.DS.A.1, K.NS.B.6, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 4 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 4 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 3

Engaging Scenario - Unit 4

Engaging Scenario - "Guess My Rule: Paleontologist Sorting Adventure!"

In this exciting adventure, your class becomes **Paleontologists** on a mission to solve the "**Guess My Rule Sorting Game!**" Students will work in small groups to **sort "fossils"** and other prehistoric items by a secret rule, like size, shape, or color. After sorting, they will challenge their classmates to guess the rule!

Using sorting mats and a variety of items like **buttons, paper clips, blocks, legos, etc.** students will sort, count, and describe their groups. After each guess, they will reveal the rule and explain how they sorted the items. The game will end with a fun "**Mystery Fossil**" round, where groups create tricky sorts using items that fit into multiple categories!

****Example Recording Sheet Found in Schoology****

You may choose to administer Cumulative Benchmark Assessment #1 prior to starting Unit 5.

Unit 5: 2D Shapes

Subject: Math

Grade: Kindergarten

Name of Unit: 2-Dimensional Shapes

Length of Unit: 10 days

Overview of Unit:

In this unit, students are introduced to geometry in Kindergarten, starting with 2-dimensional shapes. The shapes include triangles, squares, rectangles, circles, and hexagons. Shapes are identified by the number of sides and vertices. By counting and numbering the sides and vertices, students identify various examples of each shape. Students will learn that these attributes not only describe but identify the shapes. They should be able to correctly name shapes regardless of orientation or size.

Students will also describe objects in the environment using names of shapes. They will describe the relative positions of objects using positional words.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Gather pattern blocks AND attribute blocks for students (you will need squares, triangles, rectangles, circles, and hexagons).
- Prepare math station game boards and cards.
- Prepare math manipulatives and tools
 - Objects shaped like triangles, squares, and circles; attribute blocks, pattern blocks, cut-outs of various [pattern block shapes](#).

Essential Questions:

- How can I identify 2-dimensional shapes?
- Can we describe where a shape is using words like “in front of,” “behind,” “next to,” or “above”?

Enduring Understandings:

- Attributes of shapes allow us to classify, compare, and identify them.
- Shapes have attributes that define them regardless of size and/or orientation.
- Sorting shapes is based on their observable attributes.

Priority Standards:

- **K.GM.C.6** Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.
- **K.GM.C.8** Identify and describe the attributes of shapes, and use the attributes to sort a collection of shapes.

Supporting Standards:

- **K.DS.A.1** Classify objects into given categories; count the number of objects in each category.
- **K.GM.C.7** Describe the relative position of objects in space.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.GM.C.6	The name of a shape stays the same regardless of size or orientation	Identify 2D and 3D shapes in their environment using correct math vocabulary	Understand	2
K.GM.C.8	Shapes can be classified based on shared attributes	Use attributes to describe key characteristics of 2D and 3D shapes Use attributes to sort a collection of shapes.	Apply	2

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 5 Readiness Diagnostic ● Unit 5 Math Probe ● Exit Ticket ● Daily Work	● Unit 5 Review ● Unit 5 Fluency Practice ● Unit 5 Performance Task ● Unit 5 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Describe	Side
Explain	Triangle
Example	Vertex/Vertices (Corner)
Point	Rectangle
Because	Square
Describe	Hexagon
Property	Circle
Agree with place	Above
	Behind
	Below
	Beside
	In front of
	Next to

Math Language Routines:

- MLR7: Compare and Connect,
- MLR8: Discussion Supports,
- MLR1: Stronger and Clearer Each Time,
- MLR3: Critique, Correct, and Clarify

Number Routines:

- The Match
- Counting Things

Sense-Making Routines:

- Which Doesn't Belong?
- Notice and Wonder

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson	
Game Station 	Game Station Students build proficiency with 2-dimensional shapes.		
	• Triangle Sort • Shapes Concentration • Shapes Race • Shapes Tic Tac Toe • Shapes Task Cards	5-1 5-2 5-3 5-4 5-5	
	Digital Game 	Penguin Chill Students add numbers 1–5.	5-1
	Have students complete at least one of the Use It! activities for this unit.		
Application Station 	STEM Project Card Build a Doghouse Students use 2-dimensional shapes to build a doghouse.	5-4	
	Connection Card 	Signs in Our Community Students answer questions about the shapes of road signs in their community.	5-4
	Real World Card 	Learning on the Internet Students use the Internet to find pictures to show what veterinarians do and make a poster of what they find.	5-1

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
● Target Intervention ● Small Group ● Take Another Look ● Reinforce Understanding ● ALEKS Adventure	● Practice It ● Own It ● Interactive Additional Practice ● Spiral Review Practice ● Additional Practice ● ALEKS Adventure	● Use It! ● Stem Adventure ● Extend Thinking ● ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore the relative sizes and shapes of pattern blocks.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Fitting Shapes into Shapes* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on the STEM in Action videos, and finally engage students with the *Fitting Shapes into Shapes* Activity.

Suggestion: Gather pattern blocks for hexagons, squares, and triangles for each pair of students.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 1: 5-1 Triangles

Teaching Point: *Today I am going to teach you to identify, name and describe a triangle.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 5-1 and have students describe triangles of different shapes and sizes.

Another way to do this is to use the Guided Exploration 5-1 where students learn to define a triangle as a flat shape with 3 sides and 3 vertices. They also learn to count sides and vertices to determine if a shape is a triangle.

Suggestions: Gather triangles (real-world objects, pattern blocks, paper cut-outs, etc). Have students sort into triangles and not triangles in small groups.

Bloom's Levels: Understand

Webb's DOK: 2

Math Probe: Triangles

Teaching Point: *Today we are going to determine if a given shape is a triangle and explain how we know that the shape is or is not a triangle.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to present a given shape and ask the students to circle YES or NO as they determine if it is a triangle or not. Students can verbally share their explanations.

Another way to do this is to complete the Math Probe and focus on Unit 5 vocabulary.

Bloom's Levels: Analyze

Webb's DOK: 2

Engaging Experience 2: 5-2 Squares and Rectangles

Teaching Point: *Today I am going to teach you to identify, describe, and name a square and a rectangle.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 5-2 to have students sort squares and rectangles of different sizes and colors.

Another way to do this is to use the Guided Exploration 5-2 to have students learn to identify a rectangle as a shape with 4 sides and 4 right angle vertices, with opposite sides being equal. They also learn that a square is a special kind of rectangle with 4 equal sides. Students will practice counting sides and vertices to determine if a shape is a rectangle.

Suggestion: Gather squares and rectangles (real-world objects, pattern blocks, paper cut-outs, etc). Have students sort into squares and rectangles in small groups on large sorting mats.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 3: 5-3 Hexagon

Teaching Point: *Today I am going to teach you to identify, describe, and name a hexagon.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 5-3 to have students explore a variety of attribute blocks and sort the hexagons into a separate group.

Another way to do this is to use the Guided Exploration 5-3 to have students learn to identify a hexagon as a shape with 6 sides and 6 vertices. They also practice counting sides and vertices of hexagons.

Suggestion: Gather sets attribute blocks including hexagons and other shapes (1 set per group).

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 4: 5-4 Circles

Teaching Point: *Today I am going to teach you to identify, describe, and name a circle.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 5-4 to have students discover attributes of circles by completing a shape sort.

Another way to do this is to use the Guided Exploration 5-4 and have students develop an understanding that a circle is a shape with zero straight sides and zero vertices.

Suggestion: Gather circles (real-world objects, pattern blocks, paper cut-outs, etc). Have students sort into circles and not circles in small groups on large sorting mats.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 5: 5-5 Position of 2-Dimensional Shapes

Teaching Point: *Today I am going to teach you to identify and name a flat shape and describe the relative position of flat shapes.*

Suggested Length of Time: 2 days

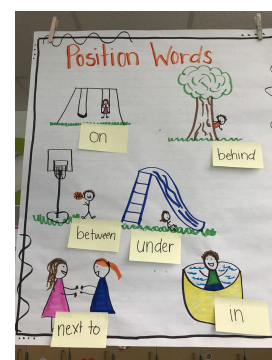
Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 5-5 to have students create a picture using shapes and describe the shapes' position relative to each other.



Another way to do this is to use the Guided Exploration 5-5 to have students practice identifying 2-dimensional shapes in a picture. They also describe the location of shapes relative to other shapes.

Suggestions: Create a vocabulary anchor chart using: above, behind, below, beside, in front of, and next to on the first day. The teacher can use position vocabulary and have students move pattern blocks, [paper pattern blocks](#) or virtual pattern block shapes on their iPads (Pattern Shapes) into the correct position.

Bloom's Levels: Apply

Webb's DOK: 3

Unit 5 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of 2-dimensional shapes to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with identifying, naming, and describing 2-dimensional shapes.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply

Webb's DOK: 3

Unit 5 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of 2-dimensional shapes to identify, name, and describe 2D shapes using their attributes to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 5 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 5 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 3

Engaging Scenario - Unit 5

"Veterinarian Shape Detective Adventure!"

In this activity, our class will become **Veterinarian Shape Detectives** to help solve the "**Case of the Missing Pet!**" Students will rotate through stations, finding **2D shapes** like circles, squares, and triangles hidden in the classroom or outdoor area. Each station will help them identify, sort, and understand shapes while helping us find the missing pet!

How It Works:

- **Step 1:** The class will split into groups of 4-5 students. Each group will rotate through **different stations** around the room.
- **Step 2:** At each station, students will look for hidden shapes and **identify** them (circle, square, triangle). They will sort shapes by how many sides or if they have curved or straight edges.
- **Step 3:** Each station has a different **animal clue** (for example, "I found the pet's paw" with a circle or "I found the pet's bed" with a square).
- **Step 4:** At the end of the stations, students will use the collected shapes to **assemble a big puzzle** showing the pet's location.
- **Step 5:** Once the pet is found, we will celebrate with **Shape Detective Badges** for solving the case together!

****Example Recording Sheet Found on Schoology****

Unit 6: Understand Addition

Subject: Math

Grade: Kindergarten

Name of Unit: Understand Addition

Length of Unit: 12 days

Overview of Unit:

In this unit, students are introduced to basic addition concepts through 10. They will use drawings and objects to concretely represent addition stories using different types of addition problems including “add to” and “put together” situations.

Students are introduced to the plus and equal signs, and they learn how to use those signs to represent addition situations symbolically.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards.
- Prepare [Part-Part-Whole](#) mats or [Number Bonds](#) mats
- Prepare math manipulatives and tools
 - Connecting cubes, counters, Equation Symbol Cards (Teaching Resource-may want to laminate), Number Cards 0-10 (Teaching Resource-may want to laminate), number cubes
- Prepare *Shake and Spill* Game (cup, counters, whiteboard, dry erase marker, eraser)

Essential Question:

- How can I solve addition word problems?

Enduring Understandings:

- Addition helps us find unknown totals in real world situations.
- The process of solving word problems builds critical thinking skills.
- The equal sign means the amount on one side of the sign is the same as the amount on the other side of the sign.

Priority Standards:

- **K.NS.C.10** Compare two or more sets of objects and identify which set is equal to, more than or less than the other
- **K.RA.A.1** Represent addition and subtraction to 10
- **K.RA.A.4** Make 10 for any number from 1 to 9.

Supporting Standards:

- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.C.10	Quantities and numerals can be compared.	Count and compare two or more sets of objects Identify which set is equal to, more than, or less than the other.	Analyze	3
K.RA.A.1	Addition and subtraction within 10 can be represented in multiple way	Use objects and pictures to represent addition and subtraction within 10 Write simple addition and subtraction sentences using symbols (+, -, =) Use and explain a variety of strategies to represent sums and differences within 10	Apply	2
K.RA.A.4	Numbers equal to or less than 10 can be decomposed into pairs in more than one way	Given any number from 1 to 9, determine the missing number needed to make a 10	Apply	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
- Unit 6 Readiness Diagnostic - Unit 6 Math Probe - Exit Ticket - Daily Work	- Unit 6 Review - Unit 6 Fluency Practice - Unit 6 Performance Task - Unit 6 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	Add
Place	In All
Example	Join
Combine	Sum (Total)
Differ/Different	Add
Compare	Equal Sign (=)
Similar	Equation
	Plus Sign (+)

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MRL2: Collect and Display
- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap

Number Routines:

- Counting Things
- What Did You See?

Sense-Making Routines:

- Notice and Wonder
- Which Doesn't Belong?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson																																						
<table><tr><th>Activity</th><th>Description</th><th>Use After Lesson</th></tr><tr><td rowspan="6">Game Station </td><td>Game Station</td><td>Students build proficiency with adding one part to another part to find the total.</td></tr><tr><td>• Add To Problems Race</td><td>6-1</td></tr><tr><td>• Solve More Addition Word Problems Tic Tac Toe</td><td>6-2</td></tr><tr><td>• Solve Addition Word Problems Four in a Row</td><td>6-3</td></tr><tr><td>• Add to 10 Match</td><td>6-4</td></tr><tr><td>• Put Together Addition Showdown</td><td>6-5</td></tr><tr><td rowspan="2">Digital Station </td><td>Digital Game</td><td>Special Delivery Students count to 20.</td></tr><tr><td></td><td>6-1</td></tr><tr><td colspan="3">Have students complete at least one of the Use It! activities for this unit.</td></tr><tr><td rowspan="4">Application Station </td><td>STEM Project Card</td><td>Ball Launcher Students design a catapult to receive and launch balls toward a container. They launch the ball, and write an equation to reflect results.</td></tr><tr><td></td><td>6-1</td></tr><tr><td>Connection Card </td><td>Exercising Students do exercises and solve add to problems.</td></tr><tr><td></td><td>6-2</td></tr><tr><td rowspan="2">Real World Card </td><td>Real World Card</td><td>What Will You Buy? Students decide what to buy and how much the items will cost.</td></tr><tr><td></td><td>6-5</td></tr></table>			Activity	Description	Use After Lesson	Game Station 	Game Station	Students build proficiency with adding one part to another part to find the total.	• Add To Problems Race	6-1	• Solve More Addition Word Problems Tic Tac Toe	6-2	• Solve Addition Word Problems Four in a Row	6-3	• Add to 10 Match	6-4	• Put Together Addition Showdown	6-5	Digital Station 	Digital Game	Special Delivery Students count to 20.		6-1	Have students complete at least one of the Use It! activities for this unit.			Application Station 	STEM Project Card	Ball Launcher Students design a catapult to receive and launch balls toward a container. They launch the ball, and write an equation to reflect results.		6-1	Connection Card 	Exercising Students do exercises and solve add to problems.		6-2	Real World Card 	Real World Card	What Will You Buy? Students decide what to buy and how much the items will cost.		6-5
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Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Target Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore how to solve addition word problems.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Combining Trains* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Combining Trains* Activity.

Suggestion: Gather connecting cubes for each pair: 11 red, 11 blue and 11 green cubes.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 1: 6-1 Represent and Solve “Add To” Problems

Teaching Point: *Today I am going to teach you how to show and explain how to show “add to” problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 6-1 to have students use counters to model addition problems within 10. They apply their understanding of counting objects to get the sum (total). In this lesson, students are using the language “___ and ___ is ___,” not addition number sentences or equations.

Another way to do this is to use the Guided Exploration 6-1 to have students represent addition as adding to a number. They use their experience with counting to determine the sum (total) number of objects. In this lesson, students are using the language “___ and ___ is ___,” not addition number sentences or equations.

Suggestions: One suggestion is to begin with pictorial representations on whiteboards. Provide a simple “add-to” story problem (e.g., “There were 3 apples on the table. Someone added 2 more apples. How many apples are there now?”). Students can draw the apples, use dots or symbols to represent the objects, and write the addition equation. After solving, have students share their drawings with a partner to explain their thinking. Transition to manipulatives (like counters or cubes) for hands-on practice, reinforcing the connection between their drawings and physical models.

Another suggestion is to introduce Part-Part-Whole mats to students and provide them with a simple “add to” story problem. Students will use counters to represent the story problem on the mat.

Bloom’s Levels: Understand

Webb’s DOK: 2

Engaging Experience 2: 6-2 Represent and Solve More “Add To” Problems

Teaching Point: *Today I am going to teach you how to show and explain how to show “add to” problems with objects and equations.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 6-2 to have students use symbol cards and number cards to model addition problems. They apply their understanding of the *plus sign* and the *equal sign* to represent addition problems.

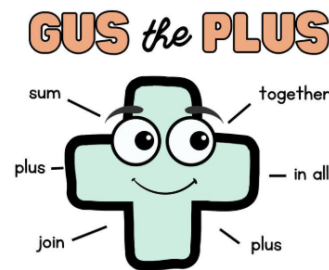
Another way to do this is to use the Guided Exploration 6-2 to have students build on their understanding of representing addition as adding to a number. They apply their understanding of the *plus sign* and the *equal sign* to represent the addition of objects.

Suggestions: During the activity-based exploration, after the pairs explore, have the pair think of a problem and build the problems with counters and number cards. As a class, take a whole group gallery walk. The pair will read their number sentence and the rest of the class checks their work. Continue through each pair's number sentence.

Another suggestion is to introduce “Gus the Plus”. Create a character, “Gus the Plus,” to introduce the addition symbol (+). Explain that Gus loves bringing groups together to make a whole. Use a fun anchor chart with Gus holding two groups of objects on either side of the plus sign, demonstrating how he connects them to create the total.

Bloom’s Levels: Apply

Webb’s DOK: 3



Engaging Experience 3: 6-3 Represent and Solve “Put Together” Problems

Teaching Point: *Today I am going to teach you how to show and explain how to put together two parts to find the total.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.NS.C.10

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 6-3 to have students use counters to model put together problems. They apply their understanding of the plus sign and the equal sign to represent the “put together” problems.

Another way to do this is to use the Guided Exploration 6-3 to have students extend their understanding of addition by representing and solving “put together” problems with objects and equations.

Suggestion: One suggestion is to do the “Shake and Spill Game” - Pair students and give each pair 10 counters. Students shake the counters in a cup, spill them onto the table, and count how many landed on each side (e.g., red vs. yellow counters). Students write the corresponding addition equation on their whiteboards (e.g., $3 + 2 = 5$) and share their work with their partners. Repeat multiple rounds for practice.

Bloom’s Levels: Apply

Webb’s DOK: 2

Engaging Experience 4: 6-4 Represent and Solve Addition Problems

Teaching Point: *Today I am going to teach you how to solve addition word problems, explaining how to use objects or drawings to help solve these word problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

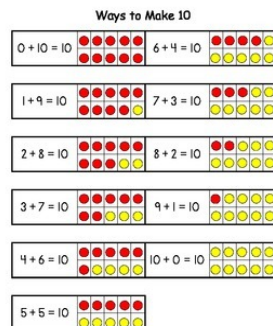
One way to do this is to use the Activity-Based Exploration 6-4 to have students show addition with counters and equations.

Another way to do this is to use the Guided Exploration 6-4 to have students build on their understanding of addition to solve put together word problems with result unknown and both addends unknown.

Suggestions: One suggestion is to do the “Shake and Spill Game to 10” shared in the previous lesson. Another suggestion is to create a Ways to Make 10 anchor chart together.

Bloom’s Levels: Apply

Webb’s DOK: 3



Math Probe: Addition Stories

Teaching Point: *Today we are going to interpret “put together” addition situations to determine the number of objects in all.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to have students solve addition word problems. Students will listen to a “put together” situation, solve using drawings or objects, and circle the correct answer. They can then show and tell why they chose the selected answer.

Another way to do this is to use the Math Probe and focus on Unit 6 vocabulary.

Bloom’s Levels: Apply

Webb’s DOK: 3

Engaging Experience 5: 6-5 Represent and Solve More Addition Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent and solve addition word problems.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 6-5 to have students use counters to show two groups being put together. They write equations to show the addition problem.

Another way to do this is to use the Guided Exploration 6-5 to have students build on their understanding of addition by representing and solving “add to” and “put together” problems using objects and equations.

Suggestions: For the activity-based activity, put students into pairs and give them each a number cube 0-5 and 10 counters per group. Have them each roll the number cube and grab that many counters. Pairs could use dry erase boards to write down the equation.

Bloom’s Levels: Apply

Webb’s DOK: 3

Unit 6 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of addition word problems (“add to” and “put together”) to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.C.10, K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing and solving addition word problems (“add to” and “put together”).

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom’s Levels: Apply

Webb’s DOK: 2

Unit 6 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of addition (“add to” and “put together”) to represent and solve word problems to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.NS.C.10, K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 6 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 6 Assessment (Form A or B) and Performance Task.

Bloom’s Levels: Apply

Webb’s DOK: 2

Engaging Scenario - Unit 6

The Great Toy Rescue!

Our class will become **Number Explorers** on a mission to unlock the toy box by solving addition problems up to 10! Students will search the classroom for hidden number clues, solving addition equations using manipulatives like counters and ten frames. Each correct answer reveals a key card with part of the Secret Code needed to unlock the box. Once all the codes are collected and placed in order, the class will open the toy box and celebrate with a small prize and an *Addition Explorer Badge* to recognize their teamwork and problem-solving skills!

****Example Recording Sheet Found on Schoology****

Unit 7: Understand Subtraction

Subject: Math

Grade: Kindergarten

Name of Unit: Understand Subtraction

Length of Unit: 12 days

Overview of Unit:

In this unit, students develop basic subtraction concepts within 10. They use objects, drawings, and equations to represent and solve subtraction stories. Students begin by representing and solving subtraction situations within 10 that involve “taking apart” and “taking from” a group of objects.

Students gradually move from using words such as “take away” and “is” to using the minus and equal sign, understanding the equation can represent a subtraction story.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards.
- Prepare [Part-Part-Whole](#) mats or [Number Bond](#) mats
- Prepare math manipulatives and tools
 - Connecting cubes, counters, Equation Symbol Cards (Teaching Resource-may want to laminate), Number Cards 0-10 (Teaching Resource-may want to laminate), small toys

Essential Question:

- How can I solve subtraction word problems?

Enduring Understandings:

- Subtraction helps us find unknown totals in real world situations.
- The process of solving word problems builds critical thinking skills.
- The equal sign means the amount on one side of the sign is the same as the amount on the other side of the sign.

Priority Standards:

- **K.RA.A.1** Represent addition and subtraction within 10
- **K.RA.A.4** Make 10 for any number from 1 to 9

Supporting Standards:

- **K.NS.C.11** Compare two numerals, between 1 and 10, and determine which is more than or less than the other
- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.RA.A.1	Addition and subtraction within 10 can be represented in multiple way	Use objects and pictures to represent addition and subtraction within 10 Write simple addition and subtraction sentences using symbols (+, -, =) Use and explain a variety of strategies to represent sums and differences within 10	Apply	2
K.RA.A.4	Numbers equal to or less than 10 can be decomposed into pairs in more than one way	Given any number from 1 to 9, determine the missing number needed to make a 10	Apply	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
• Unit 7 Readiness Diagnostic • Unit 7 Math Probe • Exit Ticket • Daily Work	• Unit 7 Review • Unit 7 Fluency Practice • Unit 7 Performance Task • Unit 7 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	Difference
Different	Subtract
Explain	Minus
Reasoning	Minus Sign
Solve	Equation
Pattern	Add
Understand	

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR2: Collect and Display

- MLR3: Critique, Correct, and Clarify
- MLR5: Co-Craft Questions

Number Routines:

- What Did You See?
- The Counting Path
- Break Apart

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: Tell me everything you can.
- Notice and Wonder: How are they the same? How are they different?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson																	
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Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Target Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore “take away” situations to shorten the length of trains.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Shorter Trains* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Shorter Trains* Activity.

Engaging Experience 1: 7-1 Represent “Take Apart” Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent “take apart” problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1,

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 7-1 to have students use counters to model “take apart” problems.

Another way to do this is to use the Guided Exploration 7-1 to have students develop an understanding of subtraction as taking apart. They decompose a group of 8 objects in various ways to help them see the different combinations of numbers that equal 8.

Suggestion: For the Activity-Based Exploration, you may use connecting cubes to build a train. Have partners break the train apart to show how many in each group.

Bloom’s Levels: Apply

Webb’s DOK: 2

Engaging Experience 2: 7-2 Represent and Solve “Take From” Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent and solve “take from” problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 7-2 to have students use counters to model “take from” problems.

Another way to do this is to use the Guided Exploration 7-2 to have students continue working with subtraction problems using numerals to represent the problem.

Suggestion: For the Activity-Based Exploration, you could use a Part-Part-Whole mat with cubes or counters as you read various word problems aloud to the students.

Bloom's Levels: Apply

Webb's DOK: 3

Engaging Experience 3: 7-3 Represent and Solve More “Take From” Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent and solve “take from” problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 7-3 to have students use equations to model “take from” word problems. They apply their understanding of solving problems to find the difference between numbers.

Another way to do this is to use the Guided Exploration 7-3 to have students use their understanding of subtraction to represent and solve “take from” subtraction problems. They show the problems with equations.

Suggestion: For the Activity-Based Exploration, instead of printing equation symbol cards, you could have students use whiteboards whole-group to write equation word problems.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 4: 7-4 Represent and Solve Subtraction Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent and solve subtraction problems.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 7-4 to have students use drawings and number cubes to create and model subtraction word problems.

Another way to do this is to use the Guided Exploration 7-4 to have students use their understanding of subtraction to represent word problems with objects and equations.

Suggestion: For the activity-based exploration, you could have students use whiteboards or math journals to draw a given set of objects (6, 7, 8, 9, or 10) and then roll a die whole group having students cross out or “take away” the amount rolled.

Bloom’s Levels: Apply
Webb’s DOK: 3

Engaging Experience 5: 7-5 Represent and Solve Addition and Subtraction Problems

Teaching Point: *Today I am going to teach you to represent and explain how to represent and solve addition and subtraction problems.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 7-5 to have students work in pairs and use numbers and symbols to model addition and subtraction problems

Another way to do this is to use the Guided Exploration 7-5 to have students continue to use their understanding of addition and subtraction to write equations and solve word problems.

Suggestion: For the Activity-Based Exploration, instead of printing equation symbol cards/number cards, you could have students use whiteboards to complete put together and take-away word problems for the whole group.

Bloom’s Levels: Apply
Webb’s DOK: 3

Math Probe: Representing Addition and Subtraction

Teaching Point: *Today we are going to interpret a problem situation to identify an addition or subtraction equation that represents the problem.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to have students circle the addition or subtraction equation that can be used to solve a given word problem.

Another way to do this is to use the Math Probe and focus on unit 7 vocabulary.

Bloom’s Levels: Apply
Webb’s DOK: 3

Unit 7 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of subtraction word problems (“take apart” and “take from”) to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing and solving subtraction word problems (“take apart” and “take from”).

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom’s Levels: Apply

Webb’s DOK: 2

Unit 7 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of subtraction (“take apart” and “take from”) to represent and solve word problems to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 7 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 7 Assessment (Form A or B) and Performance Task.

Bloom’s Levels: Apply

Webb’s DOK: 2

Engaging Scenario - Unit 7

“Subtraction Safari: The Lost Animal Rescue!”

Our class will become **Wildlife Explorers** on a mission to rescue lost animals by solving subtraction problems within 10! Scattered around the classroom are hidden animal footprints, each with a subtraction problem. Students will use **counters, number lines, or drawings** to solve each problem and discover how many animals need to be rescued. Each correct answer reveals part of the **Rescue Code**, which will help unlock the animal enclosure and return the lost animals to safety. Once all the animals are rescued, students will celebrate with a *Subtraction Explorer Badge* for their teamwork and problem-solving!

****Example Recording Sheet Found on Schoology****

You may choose to administer Cumulative Benchmark Assessment #2 prior to starting Unit 8.

Unit 8: Addition and Subtraction Strategies

Subject: Math

Grade: Kindergarten

Name of Unit: Addition and Subtraction Strategies

Length of Unit: 14 days

Overview of Unit:

In this unit, students develop the skill of finding multiple ways to make a given number (compose) or break apart a given number (decompose). Students develop and practice strategies for adding and subtracting numbers through 5. Students compose and decompose numbers through 10.

Throughout this unit, students will develop an ability to visualize amounts within a group of objects without having to count each object in the group. Students will also begin to think of all possible groupings to make or break apart a given number.

Getting Ready for the Unit:

- Watch the Expert Insights video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
 - At this point in the year, add coins to your calendar routine. Students can work on identifying a penny, nickel, dime, and quarter. Teachers can guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards.
- Prepare [Part-Part-Whole](#) mats, [Number Bond](#) mats, [Ten Frame](#), and a [Number Path](#) mat
- Print [Addition/Subtraction Flash Cards to 5](#) (1 set per group)
- Print [Addition and Subtraction Flash Cards](#) (Problems within 10)
- Prepare math manipulatives and tools
 - Connecting cubes, counters, Equation Symbol Cards (Teaching Resource-may want to laminate), Number Cards 0-10 (Teaching Resource-may want to laminate)

Essential Questions:

- How can I make and decompose numbers in more than one way?
- How are adding and subtracting similar and different?

Enduring Understandings:

- Addition and subtraction are operations that represent “add to” or “put together” situations and “take apart” or “take away” situations.
- Fluency is the ability to quickly and accurately solve basic facts.
- Numbers can be broken down or decomposed in many ways.

Priority Standards:

- **K.RA.A.1** Represent addition and subtraction within 10
- **K.RA.A.2** Demonstrate fluency for addition and subtraction within 5
- **K.RA.A.3** Decompose numbers less than or equal to 10 in more than one way
- **K.RA.A.4** Make 10 for any number from 1 to 9

Supporting Standards:

- **K.NS.A.2** Count forward beginning from a given number between 1 and 20.
- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.RA.A.1	Addition and subtraction within 10 can be represented in multiple way	Use objects and pictures to represent addition and subtraction within 10 Write simple addition and subtraction sentences using symbols (+, -, =) Use and explain a variety of strategies to represent sums and differences within 10	Apply	2
K.RA.A.2	Fluency for addition and subtraction within 5 is the ability to accurately and efficiently solve basic facts	Demonstrate fluency for addition and subtraction within 5 Use and explain multiple strategies	Apply	3
K.RA.A.3	Numbers less than 10 can be decomposed or taken apart in more than one way	Break numbers less than 10 apart into 2 or more sets Use objects, pictures, or equations to show how a number is decomposed Communicate and explain different ways a number is decomposed	Apply	3
K.RA.A.4	Numbers equal to or less than 10 can be decomposed into pairs in more than one way	Given any number from 1 to 9, determine the missing number needed to make a 10	Apply	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
- Unit 8 Readiness Diagnostic - Unit 8 Math Probe - Exit Ticket - Daily Work	- Unit 8 Review - Unit 8 Fluency Practice - Unit 8 Performance Task - Unit 8 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Explain	Add
Model	Count On
Solve	Number Path
Combine/Combination	Sum (total)
Pattern	Count Back
Different	Difference
Idea	Subtract
Because	Equation
Agree with	Make (Compose)
Symbol	Decompose (Break Apart)
List	
Understand	

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR2: Collect and Display
- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap
- MLR8: Discussion Supports

Number Routines:

- Break Apart
- The Counting Path
- Would You Rather?

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: What questions could you ask?
- Notice and Wonder: How are they the same? How are they different?
- Which Doesn't Belong?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with addition and subtraction strategies.	
	• Add to 5 Match	8-1
	• Subtract within 5 Match	8-2
	• Make 6 and 7 Task Cards	8-3
	• Break Apart 6 and 7 Task Cards	8-4
	• Make 8 and 9 Task Cards	8-5
	• Break Apart 8 and 9 Task Cards	8-6
	• Make 10 Task Cards	8-7
	• Break Apart 10 Task Cards	8-8
Digital Station 	Digital Game Penguin Chill Students subtract numbers 1–10.	8-1
Have students complete at least one of the Use It! activities for this unit.		
Application Station 	STEM Project Card Making Stages Students use everyday objects and count them to create models of two performance stages.	8-6
	Connection Card  Make a Shaker Students practice addition by adding items to create a shaker.	8-1
	Real World Card  Sound Check Students create a device that would help sound engineers.	8-1

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Target Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore mystery numbers that happen when decomposing and composing numbers.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *How Many Are Covered?* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *How Many Are Covered?* Activity.

Engaging Experience 1: 8-1 Add Within 5

Teaching Point: *Today I am going to teach you to solve addition equations within 5 and explain our work.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.2

Supporting: K.NS.A.2, K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-1 to have students solve addition equations using number paths.

Another way to do this is to use the Guided Exploration 8-1 to have students solve addition equations within 5 using a number path. They also explain their solution strategies. Students use equations to represent addition problems within 5.

Suggestion: For the Activity-Based Exploration, you may want to laminate the number path (for future use) or put it into a page protector. Use a dry erase marker or a counter to move along the number path.

Bloom's Levels: Apply

Webb's DOK: 1

Engaging Experience 2: 8-2 Subtract within 5

Teaching Point: *Today I am going to teach you to solve subtraction equations within 5 and explain our work.*

Suggested Length of Time: 2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.2

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-2 to have students solve subtraction equations using number paths.

Another way to do this is to use the Guided Exploration 8-2 to have students solve subtraction problems within 5 using a number path and explain their solution strategies. Students also use equations to represent subtraction problems within 5.

Suggestion: For the Activity-Based Exploration, you may want to laminate the number path (for future use) or put it into a page protector. Use a dry erase marker or a counter to move along the number path.

Bloom's Levels: Apply

Webb's DOK: 1

Engaging Experience 3: 8-3 Ways to Make 6 and 7

Teaching Point: *Today I am going to teach you to show how to make 6 and 7 in different ways and explain how we did it.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-3 to have students explore ways to make 6 and 7 using different number combinations.

Another way to do this is to use the Guided Exploration 8-3 to have students explore making 6 and 7 using objects and equations.

Suggestion: For the Activity-Based Exploration, you could give students a ten frame, 7 counters, and a dry erase marker. Have students build 6 and 7 using some red and some yellow counters on their ten frames at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 4: 8-4 Ways to Decompose 6 and 7

Teaching Point: *Today I am going to teach you how to decompose 6 and 7 in different ways and explain how we did it.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.3, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-4 to have students explore how to decompose 6 and 7 using objects and equations.

Another way to do this is to use the Guided Exploration 8-4 to have students decompose 6 and 7 using objects and equations.

Suggestion: For the Activity-Based Exploration, you could give students a number bond mat, 7 counters, and a dry erase marker. Have students build 6 and 7 using some red and some yellow counters on their number bonds at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Math Probe: Ways to Make and Decompose 5, 6, and 7.

Teaching Point: *Today we are going to use a number bond to determine the missing addend when breaking apart a number.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to understand a number bond as a visual representation of a part-part-whole relationship in which the whole is decomposed into two parts.

Another way to do this is to complete the Math Probe and focus on Unit 8 vocabulary.

Bloom's Levels: Analyze

Webb's DOK: 2

Engaging Experience 5: 8-5 Ways to Make 8 and 9

Teaching Point: *Today I am going to teach you to show how to make 8 and 9 in different ways and explain how we did it.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-5 to have students explore ways to make 8 and 9 using different number combinations.

Another way to do this is to use the Guided Exploration 8-5 to have students use objects to find all combinations to compose 8 and 9, then represent these combinations with equations.

Suggestion: For the Activity-Based Exploration, you could give students a ten frame, 9 counters, and a dry erase marker. Have students build 8 or 9 using some red and some yellow counters on their ten frames at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 6: 8-6 Ways to Decompose 8 and 9

Teaching Point: *Today I am going to teach you to decompose 8 and 9 in different ways and explain how we did it.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.3, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-6 to have students explore how to decompose 8 and 9 using objects and equations.

Another way to do this is to use the Guided Exploration 8-6 to have students decompose 8 and 9 using objects and equations.

Suggestion: For the Activity-Based Exploration, you could give students a number bond, 9 counters, and a dry erase marker. Have students build 8 or 9 using some red and some yellow counters on their number bonds at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 7: 8-7 Ways to Make 10

Teaching Point: *Today I am going to teach you to make 10 in different ways and find different number combinations for 10.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-7 to have students use real-world objects to practice composing groups of 10.

Another way to do this is to use the Guided Exploration 8-7 to have students use models to help find all combinations to make 10. They represent each combination using an equation.

Suggestion: For the Activity-Based Exploration, you could give students a ten frame, 10 counters, and a dry erase marker. Have students build 10 using some red and some yellow counters on their ten frames at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 8: 8-8 Ways to Decompose 10

Teaching Point: *Today I am going to teach you to decompose 10 in different ways and explain how to decompose 10 in different ways.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.3, K.RA.A.4

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 8-8 to have students model decomposing 10 using counters and cups. They use equations to show each decomposition.

Another way to do this is to use the Guided Exploration 8-8 to have students use their understanding of decomposing numbers to decompose 10.

Suggestion: For the Activity-Based Exploration, you could give students a number bond, 10 counters, and a dry erase marker. Have students build 10 using some red and some yellow counters on their number bonds at their desk. After building, students could go on a gallery walk with their dry erase markers to look at what their peers built and then write an equation that matches what was built on other peers' desks.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 8 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of composing and decomposing numbers within 10 to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.RA.A.1, K.RA.A.2, K.RA.A.3, K.RA.A.4

Supporting: K.NS.A.2, K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with composing and decomposing numbers within 10.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply
Webb's DOK: 2

Unit 8 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of decomposing numbers, as well as addition and subtraction to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.2, K.RA.A.3, K.RA.A.4

Supporting: K.NS.A.2, K.NS.A.4

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 8 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 8 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply
Webb's DOK: 2

Engaging Scenario - Unit 8

Sound Career Engineers: The Great Instrument Fix!

Our class will become Sound Career Engineers on a mission to fix broken musical instruments using addition and subtraction! The music shop is in trouble—some instruments are missing pieces, and others have extra parts that don't belong. Students will solve addition and subtraction problems within 10 to figure out how many parts are needed or must be removed to make the instruments sound just right.



How It Works:

Students will visit different instrument repair stations around the classroom.

Each station has a math problem (e.g., "A drum needs 4 sticks, but it only has 2. How many more are needed?").

Using counters, number lines, or drawings, students will solve the problem and record their answers. Once all the problems are solved, the instruments are fixed, the class will celebrate with a mini jam session to receive their "Sound Career Engineer Badge!" 🎵

****Example Recording Sheet Found on Schoology****

Unit 9: Numbers 11-15

Subject: Math

Grade: Kindergarten

Name of Unit: Numbers 11 to 15

Length of Unit: 11 days

Overview of Unit:

In this unit, students learn to represent a group of 11 to 15 objects. They also learn how to compose and decompose groups of 11 to 15 objects into ten ones and some more ones.

Students begin by counting a group of 11, 12, and 13 objects arranged in lines, arrays, and circles, representing the group using manipulatives and written numerals. They then compose number 11-15 using counters and a ten-frame, and decompose them using connecting cubes and number bonds.

Students will focus on the idea that each number is a group of ten and some additional ones. This lays the foundation for understanding place value in terms of tens and ones.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards.
- Prepare [Part-Part-Whole](#) mats, [Number Bond](#) mats, [Ten Frame](#), [Double Ten Frames](#) and a [Number Path](#) mat
- Prepare math manipulatives and tools:
 - Connecting cubes, Counters, Cups

Essential Question:

- How can I represent, make, and decompose numbers 11 to 15?

Enduring Understandings:

- “Teen Numbers” can be broken down into a group of ten and additional ones.
- Ten ones can be grouped together to make one ten.
- The position of a number lets us know if it means tens or ones.
- Place value helps us understand numbers.

Priority Standards:

- **K.NS.B.9** Demonstrate that a number can be used to represent how many are in a set.
- **K.NBT.A.1** Compose and decompose numbers from 11 to 19 into sets of tens with additional ones.
- **K.RA.A.1** Represent addition and subtraction within 10

Supporting Standards:

- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20
- **K.NS.B.6** Demonstrate that the last number name said tells the number of objects in the standard order, pairing each object with one and only number name and each number name with one and only one object.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.9	A number can be used to represent "how many" are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2
K.NBT.A.1	Numbers 11 to 19 can be composed and decomposed into sets of tens and additional ones	Separate ten ones from the remaining ones using manipulatives or drawings Understand that numbers can be arranged into groups and groups can be counted as units.	Apply	3
K.RA.A.1	Addition and subtraction within 10 can be represented in multiple way	Use objects and pictures to represent addition and subtraction within 10 Write simple addition and subtraction sentences using symbols (+, -, =) Use and explain a variety of strategies to represent sums and differences within 10	Apply	2

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
• Unit 9 Readiness Diagnostic • Unit 9 Math Probe • Exit Ticket • Daily Work	• Unit 9 Review • Unit 9 Fluency Practice • Unit 9 Performance Task • Unit 9 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	Eleven (11)
Represent	Twelve (12)
Explain	Thirteen (13)
Match	Fourteen (14)
Example	Fifteen (15)
Describe	Equation
Helpful	Make (Compose)
Check	Decompose (Break Apart)

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap
- MLR8: Discussion Supports

Number Routines:

- The Match
- What Did You See?

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: What questions could you ask?
- Notice and Wonder: How are they the same? How are they different?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with numbers 11 to 15.	
	• Count, Read, and Write 11 and 12 Task Cards 9-1 • Make or Break Apart 11 and 12 Race 9-2 • Make or Break Apart Groups up to 13 Four in a Row 9-3 • Count, Read, and Write 13 and 14 Tic Tac Toe 9-4 • Make or Break Apart 13 and 14 Race 9-5 • Make or Break Apart 15 Tic Tac Toe 9-6	
	Digital Game 	Jungle Crossing Students decompose numbers to 10. 9-1
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card 	Numbers Podcast Students make a podcast to teach others about composing, decomposing, and writing numbers. 9-2
	Connection Card 	Music Tube Students make music tubes and write numbers to accompany their designs. 9-2
	Real World Card 	Weather Codes Students use pictures to write a code to show the weather. 9-2

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Targeted Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore how to solve addition word problems.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Secret Hops* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Secret Hops* Activity.

Suggestions: For this activity, you could also make a “human number line” by using masking tape on the carpet and having students physically hop to the number you choose.

Engaging Experience 1: 9-1 Represent 11, 12, and 13

Teaching Point: *Today we are going to represent and explain how to represent 11, 12, and 13.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.NBT.A.1

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-1 to have students explore how to count and represent groups of 11, 12, and 13.

Another way to do this is to use the Guided Exploration 9-1 to have students count and represent groups of 11, 12, and 13 objects.

Suggestions: For the Activity-Based Exploration, you may choose to have students write the number 11 and draw 11 objects on their whiteboards or iPads after building the number with the partner. Continue with numbers 12 and 13.

Bloom’s Levels: Apply

Webb’s DOK: 1

Engaging Experience 2: 9-2 Make 11, 12, and 13

Teaching Point: *Today I am going to teach you to make and explain how to make groups of 11, 12, and 13 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-2 to have students use counters and double ten-frames to make 11, 12, and 13.

Another way to do this is to use the Guided Exploration 9-2 to have students make 11, 12, and 13 as ten ones and some more ones.

Bloom's Levels: Apply
Webb's DOK: 2

Suggestion: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to build 11, 12, and 13 and then represent it, using the student practice book afterwards.

Engaging Experience 3: 9-3 Decompose 11, 12, and 13

Teaching Point: *Today I am going to teach you to decompose and explain how to decompose groups of 11, 12, and 13 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-3 to have students decompose groups of 11, 12, and 13 objects using connecting cubes and number bonds.

Another way to do this is to use the Guided Exploration 9-3 to have students use their understanding of breaking apart numbers to decompose 11, 12, and 13.

Suggestion: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to decompose or break apart 11, 12, and 13 into a group of ten and some more ones, and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply
Webb's DOK: 2

Engaging Experience 4: 9-4 Represent 14 and 15

Teaching Point: *Today I am going to teach you to represent and explain how to represent 14 and 15.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-4 to have students explore how to count and represent groups of 14 and 15.

Another way to do this is to use the Guided Exploration 9-4 to have students count and represent groups of 14 and 15 objects.

Suggestions: For the Activity-Based Exploration, you may choose to have students write the number 14 and draw 14 objects on their whiteboards or iPads after building the number with the partner. Continue with the number 15.

Bloom's Levels: Apply
Webb's DOK: 1

Math Probe: Counting Counters

Teaching Point: *Today we are going to count counters and circle the number of counters shown in an arrangement.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to check that students understand when counting, the count does not change when the arrangement changes.

Another way to do this is to complete the Math Probe and focus on Unit 9 vocabulary.

Bloom's Levels: Understand
Webb's DOK: 1

Engaging Experience 5: 9-5 Make 14 and 15

Teaching Point: *Today I am going to teach you to make and explain how to make groups of 14 and 15 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-5 to have students use counters and double ten-frames to make 14 and 15.

Another way to do this is to use the Guided Exploration 9-5 to have students make 14 and 15 as ten ones and some more ones.

Suggestions: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to build 14 and 15 and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply
Webb's DOK: 2

Engaging Experience 6: 9-6 Decompose 14 and 15

Teaching Point: *Today I am going to teach you to decompose and explain how to decompose 14 and 15 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 9-6 to have students decompose groups of 14 and 15 objects using connecting cubes and number bonds.

Another way to do this is to use the Guided Exploration 9-6 to have students use their understanding of breaking apart numbers to decompose 14 and 15.

Suggestion: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to decompose or break apart 14 and 15 into a group of ten and some more ones, and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 9 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of writing and representing numbers up to 15 to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4, K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing and writing numbers up to 15.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 9 Assessment

Teaching Point: *Today I am going to teach you how to draw on your writing and represent numbers up to 15 to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.NS.B.9, K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4, K.NS.B.6

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 9 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 9 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Scenario - Unit 9

“Meteorologist Mission: Weather Number Forecast!”

Our class will become **Meteorologists** on a mission to report the **weather numbers 11-15!** Each student will visit different weather stations to **represent, make, and decompose numbers** using ten frames, tally marks, number bonds, and equations. By completing each task, students will **gather the correct numbers** for their final **weather forecast report!**



How It Works:

- Students will travel to different **Weather Forecast Stations**, each focused on a number from **11 to 15**.
- At each station, students will **represent** the number using **ten frames and equations**
- They will **make** the number using objects like counters or cubes.
- Students will **decompose** the number into two parts using number bonds and equations (e.g., $12 = 10 + 2$).
- After completing their weather report, they will present their findings like real meteorologists!

****Example Recording Sheet Found on Schoology****

Unit 10: Numbers 16-20

Subject: Math

Grade: Kindergarten

Name of Unit: Numbers 16 to 19

Length of Unit: 11 days

Overview of Unit: In this unit, students practice composing and decomposing numbers to gain the ability to recognize and represent numbers as combinations of smaller numbers. Students work through several lessons that focus on making and breaking apart numbers 16 to 19, as well as practicing writing the written numerals 16, 17, 18, and 19.

Students will continue to focus on the idea that each number is a group of ten and some more ones. They will be given multiple opportunities to compose, decompose, and represent numbers that contain one group of ten and some more ones. This lays the foundation for understanding place value in terms of tens and ones.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards
- Prepare [Part-Part-Whole](#) mats, [Number Bond](#) mats, [Ten Frame](#), [Double Ten Frames](#) and a [Number Path](#) mat
- Prepare math manipulatives and tools:
 - Connecting cubes, counters

Essential Question:

- How can I represent, make, and decompose numbers 16 to 19?

Enduring Understandings:

- “Teen Numbers” can be broken down into a group of ten and additional ones.
- Ten ones can be grouped together to make one ten.
- The position of a number lets us know if it means tens or ones.
- Place value helps us understand numbers.

Priority Standards:

- **K.NS.B.9** Demonstrate that a number can be used to represent how many are in a set.
- **K.NBT.A.1** Compose and decompose numbers from 11 to 19 into sets of tens with additional ones.
- **K.RA.A.1** Represent addition and subtraction within 10

Supporting Standards:

- **K.NS.A.4** Read and write numerals and represent a number of objects from 0 to 20

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.9	A number can be used to represent "how many" are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2
K.NBT.A.1	Numbers 11 to 19 can be composed and decomposed into sets of tens and additional ones	Separate ten ones from the remaining ones using manipulatives or drawings Understand that numbers can be arranged into groups and groups can be counted as units.	Apply	3
K.RA.A.1	Addition and subtraction within 10 can be represented in multiple way	Use objects and pictures to represent addition and subtraction within 10 Write simple addition and subtraction sentences using symbols (+, -, =) Use and explain a variety of strategies to represent sums and differences within 10	Apply	2

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 10 Readiness Diagnostic ● Unit 10 Math Probe ● Exit Ticket ● Daily Work	● Unit 10 Review ● Unit 10 Fluency Practice ● Unit 10 Performance Task ● Unit 10 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Count	Sixteen (16)
Tool	Seventeen (17)
Agree with	Eighteen (18)
Explain	Nineteen (19)
Perform	Equation
Thinking	Make (Compose)
Idea	Decompose (Break Apart)
Similar	
Clue	

Math Language Routines:

- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap
- MLR8: Discussion Supports

Number Routines:

- What Did You See?
- Break Apart

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: What questions could you ask?
- Notice and Wonder: How are they the same? How are they different?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with numbers 16 to 19.	
	• Count, Read, and Write 16 and 17 Sort	10-1
	• Make or Break Apart 16 and 17 Race	10-2
	• Make or Break Apart 16 and 17 Race	10-3
	• Count, Read, and Write 18 and 19 Task Cards	10-4
	• Count, Read, and Write 18 and 19 Tic Tac Toe	10-5
	• Make or Break Any Number to 19 Race	10-6
Digital Station 	Digital Game Penguin Chill Students practice counting to 10.	10-1
Have students complete at least one of the Use It! activities for this unit.		
Application Station 	STEM Project Card Paper Airplanes Students make a paper airplane and measure how far it flies.	10-4
	Connection Card Ways to Move Students write an equation to show how many students can travel on a bus trip.	10-6
	Real World Card Saving Money Students write an equation to show how they will save money.	10-6

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
- Targeted Intervention - Small Group - Take Another Look - Reinforce Understanding - ALEKS Adventure	- Practice It - Own It - Interactive Additional Practice - Spiral Review Practice - Additional Practice - ALEKS Adventure	- Use It! - Stem Adventure - Extend Thinking - ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to play a game that is based on decomposing numbers.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Cross Out the Numbers* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Cross Out the Numbers* Activity.

Suggestions: Use Number Cards 1-10 not including 0. It is beneficial to play this whole group the first two rounds rather than in pairs to start. You can play Teacher vs. Students in the whole group.

Engaging Experience 1: 10-1 Represent 16 and 17

Teaching Point: *Today I am going to teach you to represent and explain how to represent 16 and 17.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-1 to have students make groups and use numbers to represent 16 and 17 .

Another way to do this is to use the Guided Exploration to have students 10-1 extend their understanding of counting and representing groups of 16 and 17 objects.

Suggestion: For the Activity-Based Exploration, you may choose to have students write the number 16 and draw 16 objects on their whiteboards or iPads after building the number with the partner. Continue with the number 17.

Bloom's Levels: Apply

Webb's DOK: 1

Math Probe: How Many Counters?

Teaching Point: *Today we are going to determine how many counters you can see in drawings of double ten-frames.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to determine if students correctly use the structure of 10 to determine a quantity, without having to count each item individually, and then name the quantity as a number.

Another way to do this is to complete the Math Probe and focus on Unit 10 vocabulary.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 2: 10-2 Make 16 and 17

Teaching Point: *Today I am going to teach you to make and explain how to make groups of 16 and 17 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-2 to have students draw to represent 16 and 17 as ten ones and some more ones.

Another way to do this is to use the Guided Exploration 10-2 to have students develop an understanding of 16 and 17 as ten ones and some more ones. They represent 16 and 17 using the equations $10+6=16$ and $10+7=17$.

Suggestions: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to build 16 and 17 and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 3: 10-3 Decompose 16 and 17

Teaching Point: *Today I am going to teach you to decompose and explain how to decompose groups of 16 and 17 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-3 to have students show breaking apart a number with connecting cubes, number bonds, drawings and equations.

Another way to do this is to use the Guided Exploration 10-3 to have students use objects, connecting cubes, and number bonds to decompose 16 and 17. They focus on showing 16 and 17 as a group of ten ones and some more ones. They also represent the decompositions as $16=10+6$ and $17=10+7$.

Suggestion: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to decompose or break apart 16 and 17 into a group of ten and some more ones, and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 4: 10-4 Represent 18 and 19

Teaching Point: *Today I am going to teach you to represent and explain how to represent 18 and 19.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-4 to have students practice representing 18 and 19 using drawings and written numerals.

Another way to do this is to use the Guided Exploration 10-4 to have students extend their understanding of counting and representing groups of 18 and 19 objects.

Suggestion: For the Activity-Based Exploration, you may choose to have students write the number 18 and draw 18 objects on their whiteboards or iPads after building the number with the partner. Continue with the number 19.

Bloom's Levels: Apply

Webb's DOK: 1

Engaging Experience 5: 10-5 Make 18 and 19

Teaching Point: *Today I am going to teach you to make and explain how to make groups of 18 and 19 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-5 to have students make 18 and 19 using double ten-frames and counters.

Another way to do this is to use the Guided Exploration 10-5 to have students develop an understanding of 18 and 19 as ten ones and some more ones. They represent 18 and 19 using equations $10+8=18$ and $10+9=19$.

Suggestions: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to build 18 and 19 and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 6: 10-6 Decompose 18 and 19

Teaching Point: *Today I am going to teach you to decompose and explain how to decompose groups of 18 and 19 objects.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 10-6 to have students show breaking apart a number with connecting cubes, number bonds, drawings, and equations.

Another way to do this is to use the Guided Exploration 10-6 to have students use number bonds, connecting cubes, and real-world objects. They focus on showing 18 and 19 as a group of ten ones and some more ones. They also represent 18 with the equation $18=10+8$ and 19 with the equation $19=10+9$.

Suggestion: You may choose to combine the Activity-Based Exploration with the Guided Exploration to allow students to decompose or break apart 18 and 19 into a group of ten and some more ones, and then represent it, using the student practice book afterwards.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 10 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of writing and representing numbers up to 20 to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9, K.NBT.A.1, K.RA.A.1

Supporting: K.NS.A.4

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with writing and representing numbers up to 20.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 10 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of writing and representing numbers to 20 to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.RA.A.1, K.RA.A.4

Supporting: K.NS.A.4, K.NS.C.11

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 10 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 10 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Scenario - Unit 10

“Sky High Numbers: The Pilot & Aerospace Engineer Mission!”

Our class will become **Pilots and Aerospace Engineers**, soaring through the sky on a mission to **represent, make, and decompose numbers 16 to 19!** Each student will navigate through different **aviation stations**, where they will build airplanes, fuel rockets, and design flight paths—all while using math to complete their mission!

How It Works:

- Students will **represent** each number using **ten frames and drawings** at different aviation stations.
- They will **make** the number using **manipulatives** like cubes, counters, or airplane cutouts.
- They will **decompose** the number into two parts using **number bonds and equations** (e.g., $16 = 10 + 6$).
- After completing their flight mission, they will **earn their Pilot Wings or Aerospace Engineer Badge!**

****Example Recording Sheet Found on Schoology****

You may choose to administer Cumulative Benchmark Assessment #3 prior to starting Unit 11.

Unit 11: 3D Shapes

Subject: Math

Grade: Kindergarten

Name of Unit: 3-Dimensional Shapes

Length of Unit: 12 days

Overview of Unit:

In this unit, students will be introduced to 3-dimensional shapes. Students will understand that a 3-dimensional shape is defined as a solid shape, whereas previously learned 2-dimensional shapes are defined as flat shapes.

Students will learn to identify and describe 3D shapes. Teachers should point out the connections between 2D and 3D shapes (i.e. cylinders have circular faces) and encourage students to use previously learned geometric vocabulary, in addition to new geometric vocabulary, to help describe 3D shapes. Students will also learn to use positional vocabulary to talk about 3D shapes.

Getting Ready for the Unit:

- Watch the Expert Insights video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards
- Prepare math manipulatives and tools:
 - Attribute blocks, wooden geometric solids or other 3-D shapes, cube shaped classroom objects, wooden geometric shapes (cubes, sphere, cone, and cylinder), and connecting cubes

Essential Questions:

- How can I identify 3-dimensional shapes?
- How can I describe 3-dimensional shapes?

Enduring Understandings:

- 3D shapes are solid because they have length, height, and width, making them different from flat shapes.
- 3D shapes have faces, edges, and vertices.
- The flat faces of solid shapes are 2D shapes.
- The names of 3D shapes stay the same regardless of size and orientation.

Priority Standards:

- **K.GM.C.6** Identify shapes and describe objects in the environment using names of shapes, recognizing the name stays the same regardless of orientation or size.
- **K.GM.C.8** Identify and describe the attributes of shapes and use the attributes to sort a collection of shapes.

Supporting Standards:

- **K.GM.C.7** Describe the relative positions of objects in space.
- **K.DS.A.1** Classify objects into given categories; count the number of objects in each category.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.GM.C.6	The name of a shape stays the same regardless of size or orientation	Identify 2D and 3D shapes in their environment using correct math vocabulary	Understand	2
K.GM.C.8	Shapes can be classified based on shared attributes	Use attributes to describe key characteristics of 2D and 3D shapes Use attributes to sort a collection of shapes.	Apply	2

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 11 Readiness Diagnostic ● Unit 11 Math Probe ● Exit Ticket ● Daily Work	● Unit 11 Review ● Unit 11 Fluency Practice ● Unit 11 Performance Task ● Unit 11 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Compare	2-Dimensional Shape
Sort	3-Dimensional Shape
Different/Differ	Flat Shape
Similar	Solid Shape
Agree With	Cube
Explain	Cylinder
	Sphere
	Cone
	Face
	Vertex
	Base
	Apex
	Rounded Surface
	Above
	Behind
	Below
	Beside
	In Front Of
	Next To

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR2: Collect and Display
- MLR4: Information Gap
- MLR7: Compare and Connect
- MLR8: Discussion Supports

Number Routines:

- Would You Rather?
- Start and Stop

Sense-Making Routines:

- Notice and Wonder: How are they the same? How are they different?
- Which Doesn't Belong?
- Notice and Wonder: What do you see?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with 3-dimensional shapes.	
	• Flat or Solid Sort • Identify Cubes Race • Sphere or Not Sort • Cube, Cylinder, Sphere Tic Tac Toe • Cone, Cube, Cylinder, Sphere Bingo • Name the Solid Race	11-1 11-2 11-3 11-4 11-5 11-6
	Digital Game 	Up & Away Students practice counting objects to 20. 11-1
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card 	Shape Maze Students test 3-dimensional shapes to determine which ones roll and then build a maze for a sphere. 11-5
	Connection Card 	Shape Riddles Students write riddles about 3-dimensional shapes. 11-5
Application Station 	Real World Card Find the Shapes Students describe how to move through a grid of shapes. 11-3	

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Targeted Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to use our prior knowledge about shapes to think about what makes each shape in a group different from the other two.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Which Shape is Different?* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Which Shape is Different?* Activity.

Engaging Experience 1: 11-1 2-Dimensional and 3-Dimensional Shapes

Teaching Point: *Today I am going to teach you how to tell if a shape is flat or a solid shape and to describe the difference between flat shapes and solid shapes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-1 to have students work in pairs to classify shapes as flat shapes (2-D) or solid shapes (3-D).

Another way to do this is to use the Guided Exploration 11-1 to have students use their knowledge of basic shapes and classify given shapes as being a flat shape (2-D) or a solid shape (3-D).

Bloom's Levels: Understand

Webb's DOK: 3

Math Probe: Flat Shape or Solid Shape?

Teaching Point: *Today we are going to sort flat shapes (2-D) and solid shapes (3-D), including some shapes that may be unfamiliar to you.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to determine if students understand the difference between flat and solid shapes, and how some flat and solid shapes are related.

Another way to do this is to complete the Math Probe and focus on Unit 11 vocabulary.

Engaging Experience 2: 11-2 Cubes

Teaching Point: *Today I am going to teach you to identify, name, and describe a cube.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

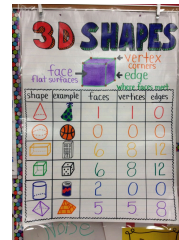
Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-2 to have students work in pairs to identify objects in the real-world that are shaped like a cube.

Another way to do this is to use the Guided Exploration 11-2 to have students learn to identify and describe a cube.

Suggestions: This lesson is a great time to start a 3D Shape chart. You will revisit the chart in Unit 13. Have students use Seesaw to have students take pictures of real-world objects shaped like a cube around the classroom. Another suggestion is to use playdough and toothpicks to create cubes at their desks.



Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 3: 11-3 Spheres

Teaching Point: *Today I am going to teach you to identify, name and describe a sphere.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-3 to have students use their knowledge of 3-dimensional shapes to help sort classroom objects.

Another way to do this is to use the Guided Exploration 11-3 to have students learn to identify and describe a sphere.

Suggestions: One suggestion is to use Seesaw to have students take pictures of real-world objects shaped like spheres around the classroom. Another suggestion is to use playdough to create spheres at their desks.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 4: 11-4 Cylinders

Teaching Point: *Today I am going to teach you to identify, name, and describe a cylinder.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-4 to have students explore 3-dimensional shapes and sort them based on whether they are cylinders or not.

Another way to do this is to use the Guided Exploration 11-4 to have students learn to identify and describe a cylinder.

Suggestions: One suggestion is to use Seesaw to have students take pictures of real-world objects shaped like cylinders around the classroom. Another suggestion is to use playdough to create cylinders at their desks.

Bloom's Levels: Apply
Webb's DOK: 2

Engaging Experience 5: 11-5 Cones

Teaching Point: *Today I am going to teach you to identify, name, and describe a cone.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-5 to have students build upon their knowledge of 3-dimensional objects by identifying and describing different solid shapes and cone-shaped objects.

Another way to do this is to use the Guided Exploration 11-5 to have students learn to identify and describe a cone.

Suggestions: One suggestion is to use Seesaw to have students take pictures of real-world objects shaped like cones around the classroom. Another suggestion is to use playdough to create cones at their desks.

Bloom's Levels: Apply
Webb's DOK: 2

Engaging Experience 6: 11-6 Describe Solids

Teaching Point: *Today I am going to teach you to identify and name a solid shape and to describe the location of solid shapes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 11-6 to have students use position words to describe the locations of 3-dimensional objects in relation to one another.

Another way to do this is to use the Guided Exploration 11-6 to have students name 3-dimensional shapes shown in a picture and describe the locations using the words above, below, in front of, behind, beside, and next to.

Suggestions: During the Activity-Based Exploration, give each group a set of solid shapes in a paper bag. Shake and dump the objects from the bag. Students will take turns describing the location of a solid shape in relation to the other shapes. Encourage students to discuss the description and make sure everyone is in agreement as to the shape's name and location.

Bloom's Levels: Understand
Webb's DOK: 2

Unit 11 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of 3-dimensional shapes to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with representing and solving subtraction word problems (“take apart” and “take from”).

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Apply
Webb's DOK: 2

Unit 11 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of 3-dimensional shapes to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.GM.C.6, K.GM.C.8

Supporting: K.GM.C.7, K.DS.A.1

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 11 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 11 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply
Webb's DOK: 3

Engaging Scenario - Unit 11

“Landscape Architect Mission: Designing 3D Shape Parks!”

Our class will become **Landscape Architects**, designing and building **amazing parks** using **3D shapes**! Each student will visit different **design stations** to identify, sort, and create structures using spheres, cubes, cones, cylinders, and rectangular prisms. By completing their designs, they will bring their **dream park** to life!



How It Works:

- Students will work in partners to **build structures** using 3D shape blocks or drawings to design a **playground, garden, or park feature**.
- They will **analyze** their design by describing which shapes they used and why.
- Once their park blueprint is complete, they will **present their designs** and earn their **Landscape Architect Badge**!

****Example Recording Sheet Found on Schoology****

Unit 12: Count to 100

Subject: Math

Grade: Kindergarten

Name of Unit: Count to 100

Length of Unit: 10 days

Overview of Unit:

In this unit, students extend their counting skills to count to 100 by first learning how to count to 50 and then learning how to count to 100. Students also develop an understanding of counting by 10's. As students become proficient with counting by 10's, they begin to explore patterns on the hundred chart that relate to groupings of 10.

Students will also practice counting on from any number other than one. Students will also revisit the idea that counting tells how many and the total number of objects in a set remains the same even if the arrangement of the objects changes. This helps reinforce the idea of counting one.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards
- Prepare [Number Charts to 50](#) and [Number Charts to 100](#) (Teaching Resource)
- Prepare math manipulatives and tools
 - Counters, stampers, dry erase markers, highlighters, connecting cubes, index cards, small objects, Zip Lock baggies, page protectors

Essential Question:

- How do I count to 100 by 1's and 10's?

Enduring Understandings:

- Numbers follow a pattern.
- We can count to 100 by ones or by skip counting by tens.
- Counting helps us understand the order of numbers, compare amounts, and solve problems.

Priority Standards:

- **K.NS.B.5** Say the number names when counting objects, in the standard order, pairing each object with one and only one number name and each number name with one and only one object.
- **K.NS.B.9** Demonstrate that a number can be used to represent “how many” are in a set.

Supporting Standards:

- **K.NS.A.1** Count to 100 by ones and tens.
- **K.NS.A.2** Count forward beginning from a given number between 1 and 20.
- **K.NS.B.6** Demonstrate that the last number name said tells the number of objects counted and the number of objects is the same regardless of their arrangement or the order in which they were counted.
- **K.NS.B.7** Demonstrate that each successive number name refers to a quantity that is one larger than the previous number.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.NS.B.5	The number names, when counting objects, using one-to-one correspondence	Accurately count a set of objects Demonstrate one-to-one correspondence between counting words and objects Say the number names in sequence	Remember	2
K.NS.B.9	A number can be used to represent “how many” are in a set.	Count how many are in a set of 20 or fewer objects. Represent the count of the set using a written numeral.	Apply	2

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 12 Readiness Diagnostic ● Unit 12 Math Probe ● Exit Ticket ● Daily Work	● Unit 12 Review ● Unit 12 Fluency Practice ● Unit 12 Performance Task ● Unit 12 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Pattern After Before Model Similar Explain Sort	Count Twenty (20)

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR3: Critique, Correct, and Clarify
- MLR4: Information Gap
- MLR8: Discussion Supports

Number Routines:

- Counting Things
- Find the Pattern, Make a Pattern

Sense-Making Routines:

- Notice and Wonder
- Notice and Wonder: What do you see?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with counting to 100.	
	• Count to 50 Race • Count to 100 to Beat the Clock Task Cards • Count by 10s Sort • What's Missing Puzzle Race • Which Number Comes Next Race	12-1 12-2 12-3 12-4 12-5
	Digital Game 	Special Delivery Students practice counting to 20. 12-1
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card 	Counting Computer Game Students design a computer game to practice counting. 12-1
Application Station 	Connection Card 	Fruit and Veggie Prints Students create and count vegetable prints. 12-1
	Real World Card 	Is It True? Students share ideas about how to know if Internet information is true. 12-2

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Targeted Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to look for patterns in a hundreds chart.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *Patterns in a Number Chart* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *Patterns in a Number Chart* Activity.

Suggestions: After the IGNITE, you may have students pair up into skill-based partnerships with their hundreds chart to work on counting by 1's, 10's, 5's, or 2's, with a partner.

Engaging Experience 1: 12-1 Count by 1's to 50

Teaching Point: *Today I am going to teach you how to count by 1s to 50 and describe patterns when counting by 1s to 50.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2, K.NS.B.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 12-1 to have students count out 50 marks on a number chart.

Another way to do this is to use the Guided Exploration 12-1 to have students discuss patterns shown in a number chart such as the first number increasing as you move down the column, and the first number staying the same in a row until reaching the end.

Suggestion: Students can use the interactive Didax [Hundred Chart](#) on the student iPads.

Bloom's Levels: Understand

Webb's DOK: 1

Engaging Experience 2: 12-2 Count by 1's to 100

Teaching Point: *Today I am going to teach you to count by 1s to 100 and describe patterns when counting by 1s to 100.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2, K.NS.B.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 12-2 to have students mark as they count on a hundreds chart.

Another way to do this is to use the Guided Exploration 12-2 to have students discuss patterns shown in a number chart such as the first number increasing as you move down the column, and the first number staying the same in a row until reaching the end.

Suggestions: It is helpful to laminate the Hundred Chart or use a page protector so that students can continue to use the Hundred Chart for additional practice. Students can also use the interactive Didax [Hundred Chart](#) on the student iPads.

Bloom's Levels: Understand
Webb's DOK: 1

Math Probe: What Number Comes After?

Teaching Point: *Today we are going to choose the number that immediately follows a given number and explain our reasoning.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to determine if students correctly use a number chart to identify what number comes right after a given number.

Another way to do this is to complete the Math Probe and focus on Unit 11 vocabulary.

Bloom's Levels: Apply
Webb's DOK: 1

Engaging Experience 3: 12-3 Count by 10's to 100

Teaching Point: *Today I am going to teach you to count by 10s to 100 and describe patterns as we count.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2, K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 12-3 to have students practice counting by 10s to 100 using bags with ten objects each.

Another way to do this is to use the Guided Exploration 12-3 to have students practice counting by 10s to 100 using ten-frames, connecting cubes, and number charts. Students will describe patterns they notice when counting by 10s.

Suggestions: One suggestion would be to use the Number Pieces app on the iPads to have students practice counting base ten blocks by 10s. Another suggestion would be to put sets of ten in different stations around the room and have students work with a partner to count the sets of ten at each station.

Bloom's Levels: Understand
Webb's DOK: 1

Engaging Experience 4: 12-4 Count From Any Number to 100

Teaching Point: *Today we are going to count by 1s to 100 starting at any number and describe how to count by 1s to 100, starting at any number.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 12-4 to have students practice counting forward from a given number.

Another way to do this is to use the Guided Exploration to have students practice counting on from a given number, using a number chart as a resource.

Suggestion: If time allows, you can combine the Activity-Based Exploration with the Guided Exploration for this lesson.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 5: 12-5 Count to Find Out How Many

Teaching Point: *Today I am going to teach you to count and describe how to count to answer "how many?" about as many as 20 things.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.9

Supporting: K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 12-5 to have students count objects and then count again using a double ten-frame.

Another way to do this is to use the Guided Exploration 12-5 to have students count objects in groups using counters and double ten-frames to model the total number.

Suggestions: If time allows, you can combine the Activity-Based Exploration with the Guided Exploration for this lesson.

Bloom's Levels: Understand

Webb's DOK: 2

Unit 12 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of counting by 1s and 10s to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2, K.NS.B6, K.NS.B7

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with counting by 1s and 10s.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Understand

Webb's DOK: 2

Unit 12 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of counting by 1s and 10s to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

PPriority: K.NS.B.5, K.NS.B.9

Supporting: K.NS.A.1, K.NS.A.2, K.NS.B6, K.NS.B7

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 12 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 12 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Scenario - Unit 12

Engaging Experience - "Nutritionist Mission: The Healthy Food Count!"

In this activity, our class will become **Nutritionists** who are helping people eat healthy by counting food! We will practice counting by **1's** and **10's** to organize healthy foods. Students will count fruits, vegetables, and proteins to create a healthy meal plan.

**How It Works:**

- Students will count by **1's** and **10's** using foods like apples, carrots, and eggs.
- They will write how many they counted and draw the food they counted.
- After counting, students will share their healthy meal plan and earn their **Nutritionist Badge!**

****Example Recording Sheet Found on Schoology****

Unit 13: Analyze, Compare and Compose Shapes

Subject: Math

Grade: Kindergarten

Name of Unit: Analyze, Compare, and Compose Shapes

Length of Unit: 11 days

Overview of Unit: In this unit, students compare, contrast, and create two- and three-dimensional shapes. They distinguish objects that are two-dimensional (flat) from those that are three-dimensional shapes (solid). They draw 2D shapes and build 3D shapes. Students also identify 3D shapes from real-world objects around them.

Students discover that changing the size or orientation of the shape does not change the name of the shape. Students recognize and draw shapes based on their attributes. It is important for students to begin to use and understand precise mathematical language such as vertex vs. corner.

Finally students separate or sort shapes that are in the desired category from the other shapes that are not in the desired category. They recognize common and distinct attributes among shapes.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards
- Prepare math manipulatives and tools
 - Attribute blocks, index cards, drawing tools, [shape spinner](#), bag, dice, wooden geometric solids, real-world objects shaped like geometric shapes, clay/play doh

Essential Question:

- How can I tell how shapes are alike and different?

Enduring Understandings:

- 2D shapes have only length and width, and they are flat.
- 3D shapes have length, width, and height, and they take up space in the real world.
- Shapes can be identified by their specific characteristics, such as the number of sides, corners (vertices), or whether the sides are straight or curved.
- Smaller shapes can be combined to make larger shapes (like two triangles making a square), and shapes can be separated into smaller parts.
- Recognizing and understanding shapes helps us describe objects around us in the world.

Priority Standards:

- **K.GM.C.8** Identify and describe the attributes of shapes and use the attributes to sort a collection of shapes.
- **K.GM.C.9** Draw or model simple two-dimensional shapes.
- **K.GM.C.10** Compose simple shapes to form larger shapes using manipulatives.

Supporting Standards:

- **K.GM.A.1** Describe several measurable attributes of objects.
- **K.NS.B.6** Demonstrate that the last number said tells the number of objects counted and the number objects is the same regardless of their arrangement or the order in which they were counted.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.GM.C.8	Shapes can be classified based on shared attributes	Use attributes to describe key characteristics of 2D and 3D shapes Use attributes to sort a collection of shapes.	Apply	2
K.GM.C.9	Draw or model simple two-dimensional shapes	Use fine motor skills to create shapes with recognizable attributes Understand shapes must have closed boundaries Create shapes using manipulatives or arrange materials to form shapes	Apply	3
K.GM.C.10	Compose simple shapes to form larger shapes using manipulatives	Identify how two or more shapes fit together to create a larger shape Visualize and predict how shapes can be joined Discuss and explain how shapes combine	Apply	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
- Unit 13 Readiness Diagnostic - Unit 13 Math Probe - Exit Ticket - Daily Work	- Unit 13 Review - Unit 13 Fluency Practice - Unit 13 Performance Task - Unit 13 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Compare	2-Dimensional Shape
Sort	Flat Shape
Matches	3-Dimensional Shape
Same	Solid Shape
Combine	Side
After	Vertex (Corner)
Before	Apex
Stack	Base
Place	Face
Point	Build

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR2: Collect and Display
- MLR3: Critique, Clarify, and Correct
- MLR8: Discussion Supports

Number Routines:

- Find the Pattern, Make a Pattern
- Start and Stop

Sense-Making Routines:

- Notice and Wonder: How are they the same? How are they different?
- Notice and Wonder: Tell me everything you can
- Notice and Wonder: What question could you ask?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station 	Game Station Students build proficiency with analyzing, comparing, and composing shapes. • Compare 2-Dimensional Shapes Four in a Row 13-1 • Draw Shapes Race 13-2 • Build 2-Dimensional Shapes Task Cards 13-3 • Sort 3-Dimensional Shapes 13-4 • Build 3-Dimensional Shapes Task Cards 13-5 • Solid Shapes in My World Match 13-6	
	Digital Game 	Apples & Oranges Students compare numbers to 10. 13-1
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card 	Shape Website Students design a website about 2- and 3-dimensional shapes. 13-4
	Connection Card 	Quilt Block Students use shapes to design a quilt block. 13-3
	Real World Card 	Plan a Video Game Students follow teacher directions and use a chart to design a video game. 13-4

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
• Targeted Intervention • Small Group • Take Another Look • Reinforce Understanding • ALEKS Adventure	• Practice It • Own It • Interactive Additional Practice • Spiral Review Practice • Additional Practice • ALEKS Adventure	• Use It! • Stem Adventure • Extend Thinking • ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to explore the sizes and shapes of pattern blocks and how they relate to one another in size.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper/pencil assessment, then move on to the STEM in Action videos, and finally engage students with the *More Shapes Into Shapes* Activity.

Another way to do this is use the Readiness Diagnostic online, then move on to the STEM in Action videos, and finally engage students with the *More Shapes Into Shapes* Activity.

Suggestion: After the IGNITE, you could have students use the Pattern Shapes app to build objects using the stencils.

Engaging Experience 1: 13-1 Compare and Contrast 2-Dimensional Shapes

Teaching Point: *Today I am going to teach you how to explain how 2-dimensional shapes are alike and different and to compare and contrast 2-dimensional shapes using their attributes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8

Supporting: K.NS.B.6, K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-1 to have students compare and contrast 2-dimensional shapes based on the attributes of the shapes.

Another way to do this is to use the Guided Exploration 13-1 to have students build upon their knowledge of the names and classifications of shapes to compare 2-dimensional shapes.

Bloom's Levels: Analyze

Webb's DOK: 2

Math Probe: Which Shape Does Not Belong?

Teaching Point: *Today we are going to determine which shapes in a group are “most alike” and which does not belong.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to determine (by using attributes) which shapes are most alike.

Another way to do this is to complete the Math Probe and focus on Unit 13 vocabulary.

Bloom's Levels: Analyze

Webb's DOK: 2

Engaging Experience 2: 13-2 Build and Draw 2-Dimensional Shapes

Teaching Point: *Today I am going to teach you to build 2D shapes and draw flat shapes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8, K.GM.C.9

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-2 to have students draw circles, squares, rectangles, triangles, and hexagons.

Another way to do this is to use the Guided Exploration 13-2 to have students build upon their knowledge of 2-dimensional shapes to draw shapes based upon given attributes.

Suggestion: For the Activity-Based Exploration, use the Shape Spinner on Schoology.

Bloom's Levels: Apply

Webb's DOK: 2



Engaging Experience 3: 13-3 Compose 2-Dimensional Shapes

Teaching Point: *Today I am going to teach you to use and explain how to use 2-dimensional shapes to form larger 2-dimensional shapes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8, K.GM.C.10

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-3 to have students use 2-dimensional shapes (flat shapes) to make larger 2-dimensional shapes.

Another way to do this is to use the Guided Exploration 13-3 to have students use smaller 2-dimensional shapes (flat shapes) to build larger 2-dimensional shapes.

Suggestion: One suggestion is instead of physical attribute blocks, students could work in pairs to build a larger shape using the Pattern Shapes app on their iPads.

Bloom's Levels:

Webb's DOK: 2

Engaging Experience 4: 13-4 Compare and Contrast 3-Dimensional Shapes

Teaching Point: *Today I am going to teach you to explain how 3-dimensional shapes are alike and different and to compare and contrast 3-dimensional shapes using their defining attributes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-4 to have students compare and contrast 3-dimensional objects.

Another way to do this is to use the Guided Exploration 13-4 to have students compare and contrast 3-dimensional shapes (solid shapes) by looking at their defining attributes.

Bloom's Levels: Analyze

Webb's DOK: 2

Engaging Experience 5: 13-5 Build 3-Dimensional Shapes

Teaching Point: *Today I am going to teach you to build and explain how to build 3-dimensional shapes.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.9

Supporting: K.GM.C.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-5 to have students build 3-dimensional shapes out of clay.

Another way to do this is to use the Guided Exploration 13-5 to have students use what they know about shapes to build 3-dimensional shapes.

Suggestion: For the Activity-Based Exploration use the provided playdough rather than clay to have students build 3D shapes.

Bloom's Levels: Apply

Webb's DOK: 2

Engaging Experience 6: 13-6 Describe 3-Dimensional Shapes in the World

Teaching Point: *Today I am going to teach you to identify 3-dimensional shapes you see in the world.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8, K.GM.C.10

Supporting: K.GM.C.7

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 13-6 to have students identify shapes in the real-world shaped like 3-dimensional shapes they know.

Another way to do this is to use the Guided Exploration 13-6 to have students use what they know about shapes to identify 3-dimensional shapes in a real-world context. They also describe the shape's relative position.

Suggestions: If time allows, combine the Activity-Based Exploration and Guided Exploration for this lesson.

Bloom's Levels: Apply

Webb's DOK: 2

Unit 13 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of identifying and comparing shapes by their attributes to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.C.8, K.GM.C.9, K.GM.C.10

Supporting: K.GM.A.1, K.NS.B.6

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with identifying and comparing shapes by their attributes.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Analyze

Webb's DOK: 2

Unit 13 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of identifying and comparing shapes by their attributes to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.GM.C.8, K.GM.C.9, K.GM.C.10

Supporting: K.GM.A.1, K.NS.B.6

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 13 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 13 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Analyze

Webb's DOK: 2

Engaging Scenario - Unit 13

"Video Game Designer: Create Shapes for Your Game!"

In this activity, we will become **Video Game Designers**! We'll use **2D and 3D shapes** to create characters, buildings, and objects for our new video game world. We'll talk about the shapes, compare them, and then combine them to make fun things for our game!

How It Works:

- We will **look at** different shapes (circles, squares, triangles, cubes, spheres).
- We will **compare** shapes by seeing what's the same and different.
- We will **make** new shapes for our video game characters and buildings by putting shapes together.

****Example Recording Sheet Found on Schoology****

Unit 14: Compare Measurable Attributes

Subject: Math

Grade: Kindergarten

Name of Unit: Compare Measurable Attributes

Length of Unit: 10 days

Overview of Unit:

In this unit, students build on their earlier work sorting objects according to attributes (such as size, color, and shape) to identify, describe, and compare measurable attributes of objects.

Students work with measurable attributes of length, weight, height and capacity. They learn that when two objects have a measurable attribute in common, the measurable attribute can be compared. They use descriptive words (i.e. longer or shorter) to describe the comparison and make conclusions.

Getting Ready for the Unit:

- Watch the *Expert Insights* video to familiarize yourself with the content of the unit
- Send home the Family Letter for the unit (OPTIONAL)
- Prepare a monthly calendar that includes yesterday, today and tomorrow
- Coins should now be part of the daily calendar routine.
 - Students work on identifying a penny, nickel, dime, and quarter. Teachers will guide students to build the days of the month with pennies and learn to trade up for larger coins.
- Have a way to track number of days in school by ones, tens and hundreds
- Prepare math station game boards and cards
- Prepare math manipulatives and tool
 - Cups of different sizes, objects that can be described by length, height, weight, and capacity, connecting cubes, objects of different lengths/heights/weights/capacity, building blocks, balance scale, beans, and masking tape.

Essential Question:

- How can I describe and compare the length, height, weight, and capacity of objects?

Enduring Understandings:

- Every object has measurable attributes like length, height, weight, and capacity.
- We can use standard or non-standard units to measure objects.
- Two objects with common measurable attributes can be directly compared.
- Understanding and measuring attributes helps us solve problems in daily life, such as knowing how much space we need.

Priority Standards:

- **K.GM.A.2** Compare the measurable attributes of two objects.

Supporting Standards:

- **K.GM.A.1** Describe several measurable attributes of objects.

Standard	Unwrapped Concepts (Students need to know)	Unwrapped Skills (Students need to be able to do)	Bloom's Taxonomy Levels	Webb's DOK
K.GM.A.2	Compare the measurable attributes of two objects	Identify measurable attributes of objects Compare two objects based on a single attribute Use appropriate vocabulary to describe comparisons	Understand	3

Assessment Options:

Formative Assessment Options <i>(Administered before or during a unit, topic or lesson to guide instruction and give feedback to students.)</i>	Summative Assessment Options <i>(Administered at the end of a unit or topic to assess mastery of learning objectives.)</i>
● Unit 14 Readiness Diagnostic ● Unit 14 Math Probe ● Exit Ticket ● Daily Work	● Unit 14 Review ● Unit 14 Fluency Practice ● Unit 14 Performance Task ● Unit 14 Assessment Form A or B

Unit Vocabulary:

Academic Cross-Curricular Words	Content/Domain Specific
Detail	Capacity
Explain	Height
Compare	Length
Agree With	Weight
Plan	Long (Longer)
Because	Short (Shorter)
Tool	High (Higher)
Measure	Tall (Taller)
Understand	Heavy (Heavier)
	Light (Lighter)
	Weighs Less/More
	Empty
	Full
	Holds Less
	Holds More

Math Language Routines:

- MLR1: Stronger and Clearer Each Time
- MLR3: Critique, Clarify, and Correct
- MLR4: Information Gap
- MLR7: Compare and Connect
- MLR8: Discussion Supports

Number Routines:

- Start and Stop
- Break Apart

Sense-Making Routines:

- Notice and Wonder: What do you notice? What do you wonder?
- Notice and Wonder: How are they the same? How are they different?

Workstations

Learning stations are an activity based structure that provides students with opportunities for student-led engagement with or extensions of previously taught concepts. Below are some learning stations suggested for this unit. You may choose which learning stations to use and for how long according to the needs of your students.

Activity	Description	Use After Lesson
Game Station Digital Station Application Station	Game Station  Students build proficiency with comparing measurable attributes. • Describe Objects Sort 14-1 • Length Showdown 14-2 • What is Taller, or Shorter Tic Tac Toe 14-3 • Which is Heavier, or Lighter Race 14-4 • Which Holds More, or Less Showdown 14-5	
	Digital Game  Up & Away Students practice counting objects to 20. 14-1	
	Have students complete at least one of the Use It! activities for this unit.	
	STEM Project Card  Recycling Bins Students make a recycling bin and compare its length, height, and volume with others' bins. 14-5	
	Connection Card  Family Flag Students use shapes and colors to design a family flag and then compare it to others' flags. 14-2	
	Real World Card  Which Would You Buy? Students compare product sizes to make good buying decisions. 14-5	

Differentiated Practice and Application Suggestions:

<i>Reinforce Understanding</i>	<i>Build Proficiency</i>	<i>Extend Thinking</i>
- Targeted Intervention - Small Group - Take Another Look - Reinforce Understanding - ALEKS Adventure	- Practice It - Own It - Interactive Additional Practice - Spiral Review Practice - Additional Practice - ALEKS Adventure	- Use It! - Stem Adventure - Extend Thinking - ALEKS Adventure

Diagnostic Assessment and IGNITE!

Teaching Point: *Today we are going to build a cube using connecting cubes and then discuss the measurable attributes of each large cube.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to begin with the Readiness Diagnostic paper assessment, then move on to the STEM in Action videos, and finally engage students with the *How Big?* Activity.

Another way to do this is use the Readiness Diagnostic online assessment, then move on to the STEM in Action videos, and finally engage students with the *How Big?* Activity.

Engaging Experience 1: 14-1 Describe Attributes of Objects

Teaching Point: *Today I am going to teach you to describe objects using length, height, weight, and capacity and to explain different ways to describe the same object.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

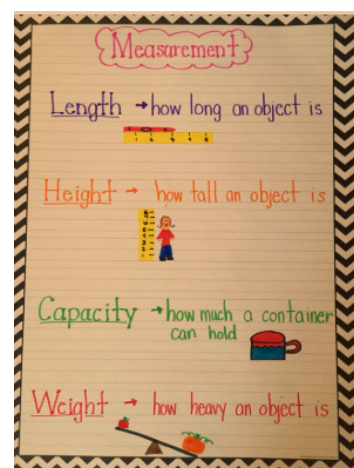
Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 14-1 to have students examine objects and describe their attributes.

Another way to do this is to use the Guided Exploration 14-1 to introduce various measurable attributes of objects to students and ask them to describe objects in different ways.

Suggestions: Create an anchor chart teaching students to length, height, weight, and capacity as you begin this unit to refer to throughout your lessons.



Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 2: 14-2 Compare Lengths

Teaching Point: *Today I am going to teach you to compare two objects by length and describe an object as longer or shorter than another object.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 14-2 to have students practice comparing lengths of objects.

Another way to do this is to use the Guided Exploration 14- to have students compare the length of different objects. They learn the importance of lining up objects at the ends to compare length.

Suggestion: For the Activity-Based Exploration, allow students to pick an object of their choice and then compare the length with a partner using appropriate math language such as longer and shorter.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 3: 14-3 Compare Heights

Teaching Point: *Today I am going to teach you to compare two objects by height and describe an object as taller or shorter than another object.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 14-3 to have students describe, given objects, by using height comparisons.

Another way to do this is to use the Guided Exploration 14-3 to compare height of different objects. They learn the importance of lining up the objects to compare height.

Suggestion: After the Activity-Based Exploration, you could have students put themselves in order from tallest to shortest. Students can also create towers of varying lengths using connecting cubes and order those. You can review the previous day's lesson by having students order themselves by the length of their hair.

Bloom's Levels: Understand

Webb's DOK: 2

Math Probe: Comparing Objects

Teaching Point: *Today we are going to determine which statement is correct after comparing the length and height of two objects.*

Suggested Length of Time: 1 day

Detailed Description/Instructions:

One way to do this is to use the Math Probe to determine if students correctly compare the lengths of two objects in terms of shorter, taller, longer, same length as, or same height as.

Another way to do this is to complete the Math Probe and focus on Unit 14 vocabulary.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 4: 14-4 Compare Weights

Teaching Point: *Today I am going to teach you to compare two objects by weight and describe an object as heavier or lighter than another object.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 14-4 to have students compare the weights of cups of beans.

Another way to do this is to use the Guided Exploration 14-4 to have students compare the weights of different objects. They discuss how to compare using balance scales.

Suggestions: For the Activity-Based Exploration, you may need to borrow balance scales from other classrooms or complete a whole-group demonstration with pairs taking turns. Another suggestion is to allow students to explore using a balance scale by playing the [Weigh This](#) game on the Starfall app on their iPads.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Experience 5: 14-5 Compare Capacities

Teaching Point: *Today I am going to teach you to compare two objects by capacity and describe an object holding more or holding less than another object.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Activity-Based Exploration 14-5 to have students practice comparing capacities using real-world objects.

Another way to do this is to use the Guided Exploration 14-5 to have students compare the capacity of different objects to determine which holds more and which holds less.

Suggestion: After the Activity-Based Exploration, you could allow students to explore capacity with the [Fill It Game](#) on the PBS Kids app on their iPads.

Bloom's Levels:

Webb's DOK: 2

Unit 14 Review and Fluency Check

Teaching Point: *Today I am going to teach you how to draw on your understanding of comparing measurable attributes to review what you have learned in this unit.*

Suggested Length of Time: 1 day

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to use the Unit Review to review vocabulary terms, and show proficiency with comparing measurable attributes.

Another way to do this is to use the Fluency Practice to help students develop procedural fluency, that is, the ability to apply procedures accurately, efficiently, and flexibly.

Bloom's Levels: Understand

Webb's DOK: 2

Unit 7 Assessment

Teaching Point: *Today I am going to teach you how to draw on your understanding of comparing measurable attributes to complete our unit assessment.*

Suggested Length of Time: 1-2 days

Standards Addressed

Priority: K.GM.A.2

Supporting: K.GM.A.1

Detailed Description/Instructions:

One way to do this is to have students complete the paper/pencil Unit 14 Assessment (Form A or B) and Performance Task.

Another way to do this is to have students complete the digital Unit 14 Assessment (Form A or B) and Performance Task.

Bloom's Levels: Understand

Webb's DOK: 2

Engaging Scenario - Unit 14

Engaging Experience - "Carpenter's Workshop: Measuring Length!"

In this activity, we will become **Carpenters**, measuring how long different **classroom objects** are using **blocks** or **hands** as our measuring tools. We will compare the lengths of objects to see which is the longest!

****Example Recording Sheet Found on Schoology****