

Unit 2

Content Area: **Mathematics**
Course(s): **Mathematics K**
Time Period: **December**
Length: **Trimester 2**
Status: **Published**

Unit Overview

UNIT 2 will include i-Ready Units 3 & 4 and is taught over approximately 3 months.

i-Ready Unit 3: Addition and Subtraction Within 5 and Shapes

This unit introduces students to adding and subtracting within 5. It also introduces them to two-dimensional shapes.

The major themes of the unit are:

- Adding one group to another group makes more.
- When you take away objects from a group, you are subtracting.
- Two-dimensional shapes have attributes that can be described.
- You can identify shapes as flat or solid. Flat shapes make the faces of solid shapes.
- You can use words to name a shape and describe its position.

Unit Skills include:

1. Use fingers or manipulatives to add two numbers within 5.
2. Tell and solve add-to story problems.
3. Identify and name two-dimensional shapes regardless of orientation or size.
4. Use fingers or manipulatives to subtract two numbers within 5.
5. Tell and solve take-away story problems.
6. Determine whether a story problem calls for addition or subtraction.
7. Use math vocabulary to describe addition, subtraction, and two-dimensional shapes

i-Ready Unit 4: Numbers to 10 and Shapes

This unit introduces students to counting, writing, and comparing numbers to 10. It also introduces them to Shapes and number partners for 10.

The major themes of the unit are:

- You can compare two numbers to decide if one number is greater than, less than, or equal to the other.

- Number partners combine to make a new number. You can find number partners by breaking apart a number into smaller parts.
- You can put together two or more shapes to make larger shapes.

Unit Skills include:

1. Show, write, and count numbers 6 to 10.
2. Compare two numbers 1 to 10 using the terms greater than, less than, or equal to.
3. Put together two-dimensional shapes to compose larger shapes.
4. Put together three-dimensional shapes to compose larger shapes.
5. Compose and decompose 10.
6. Find a missing number partner for 10.
7. Write equations to represent number partners for 10.
8. Use math vocabulary to describe numbers and shapes.

Priority Standards

MATH.K.CC.A.1	Count to 100 by ones and by tens.
MATH.K.CC.A.3	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
MATH.K.CC.B.5	Count to answer “how many?” questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
MATH.K.CC.C.6	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.
MATH.K.CC.C.7	Compare two numbers between 1 and 10 presented as written numerals.
MATH.K.OA.A.1	Represent addition and subtraction up to 10 with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.
MATH.K.OA.A.4	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.
MATH.K.DL.A.1	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
MATH.K.G.A.2	Correctly name shapes regardless of their orientations or overall size.
MATH.K.G.A.3	Identify shapes as two-dimensional (lying in a plane, “flat”) or three-dimensional (“solid”).
MATH.K.G.B.4	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/“corners”) and other attributes (e.g., having sides of equal length).
MATH.K.G.B.6	Compose simple shapes to form larger shapes.

Learning Goals (Targets)

- Analyze and compare two- and three-dimensional shapes, in different sizes and orientations to describe their differences
- Analyze and compare two- and three-dimensional shapes, in different sizes and orientations to describe their parts and other attributes
- Analyze and compare two- and three-dimensional shapes, in different sizes and orientations to describe their similarities
- Classify objects into categories
- Compose simple shapes to form larger shapes
- Count objects and tell how many
- Count objects up to 20
- Count out (up to 20) objects and put them in a pile
- Count the number of objects in each category
- Count to 100 by 10's
- Count to 100 by 1's
- Count to answer "how many?" objects up to 10 in a scattered configuration
- Count to answer "how many?" objects up to 20 arranged in a circle
- Count to answer "how many?" objects up to 20 arranged in a line
- Count to answer "how many?" objects up to 20 arranged in a rectangular array
- Describe objects in the environment using names of shapes
- Describe the relative position of objects using terms such as above, below, beside, in front of, behind, and next to
- Find the number that makes 10 when added to the given number
- Identify a group of objects that has the greater amount
- Identify a group of objects that has the lesser amount
- Identify groups that have an equal amount of objects
- Recognize and name the shape circle
- Recognize and name the shape cone
- Recognize and name the shape cube
- Recognize and name the shape cylinder
- Recognize and name the shape hexagon
- Recognize and name the shape rectangle
- Recognize and name the shape sphere
- Recognize and name the shape square
- Recognize and name the shape triangle
- Recognize if a shape is three-dimensional (solid)
- Recognize if a shape is two-dimensional (flat)
- Recognize the symbols $+$, $-$, $=$
- Represent addition up to 10 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations
- Represent objects up to 20 with a written numeral

- Represent subtraction up to 10 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations
- Sort categories by count
- Tell which number is greater than or less than up to 10
- Understand addition as putting together and adding to
- Understand subtraction as taking away and taking apart
- Understand that the next number (when counting) is larger than the previous number
- Use positional words to describe objects
- Write the numbers 0 to 20

Essential Questions

- Can you count to 100 by 1's and 10's?
- How can I figure out the answer when I am adding?
- How can I figure out the answer when I am subtracting?
- How can I represent how many objects I counted?
- How can I show that I am adding?
- How can I show that I am subtracting?
- How can I use objects to add?
- How can I use objects to subtract?
- How can smaller shapes be used to build bigger shapes?
- How can we make 10 using two groups?
- How can we show a number in other ways?
- How can we show how many objects we counted?
- How do I compose numbers?
- How do I decompose numbers?
- How do I determine how many objects are in a group?
- How do I know how many objects are in a group?
- How do I organize objects into categories?
- How do I write numbers to 10?
- How many ways can I make 10?
- What are the different kinds and parts of shapes?
- What different types of shapes are in our world?
- What do numbers tell me?
- What do the - and = symbols mean?
- What do the + and = symbols mean?
- What does the successive number when counting mean?
- What is the difference between flat and solid shapes?
- What is the difference between greater than, less than and equal to?
- Which number is larger, smaller?

- Why do we need to count to 100 by 10's?
- Why do we need to count to 100 by 1's?

Materials and Resources

- Centers Library
- Classroom Library read alouds
- Hands on math manipulatives
- iReady App
- iReady Classroom Text
- Student workbooks
- Teacher Toolbox

Assessments

- Class participation
- Comprehension Checks
- Diagnostic Growth assessments
- Group work
- Guided practice
- Individual practice
- Lesson Quizzes
- My Learning Path weekly progress
- Student Workbook
- Teacher observation
- Unit Assessments

Learning Plan

Time Frame	Lesson	Standards	Targets
Unit 3 - (24 Days) Addition and Subtraction Within 5 and Shapes			
5 Days	Lesson 7 Add Within 5	K.OA.A.1	<ul style="list-style-type: none"> - Recognize the symbols $+$, $=$ - Represent addition up to 5 with objects, fingers, mental images, drawings, sounds, acting out

			<p>situations, verbal explanations, expressions, or equations</p> <ul style="list-style-type: none"> - Understand addition as putting together and adding to
5 Days	Lesson 8 Two-Dimensional Shapes	K.G.A.2, K.G.A.3	<ul style="list-style-type: none"> - Recognize and name the shape circle - Recognize and name the shape square - Recognize and name the shape rectangle - Recognize and name the shape triangle - Recognize and name the shape hexagon - Recognize if a shape is two-dimensional (flat)
5 Days	Lesson 9 Subtract Within 5	K.OA.A.1	<ul style="list-style-type: none"> - Recognize the symbols $-$, $=$ - Represent subtraction up to 5 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations - Understand subtraction as taking away and taking apart
5 Days	Lesson 10 Add and Subtract Within 5	K.OA.A.1	<ul style="list-style-type: none"> - Recognize the symbols $+$, $=$ - Represent addition up to 5 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations - Understand addition as putting together and

			<p>adding to</p> <ul style="list-style-type: none"> - Recognize the symbols $-$, $=$ - Represent subtraction up to 5 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations - Understand subtraction as taking away and taking apart
3 Days	Math in Action - Make a Mobile	K.CC.B.5, K.OA.A.1, K.G.A.2, K.DL.A.1	<ul style="list-style-type: none"> - Count objects and tell how many - Count to answer "how many?" objects up to 20 arranged in a line - Count to answer "how many?" objects up to 20 arranged in a rectangular array - Count to answer "how many?" objects up to 20 arranged in a circle - Count to answer "how many?" objects up to 10 arranged in a scattered configuration - Recognize the symbols $+$, $=$ - Represent addition up to 5 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations - Understand addition as putting together and adding to

			<ul style="list-style-type: none"> - Recognize the symbols -, = - Represent subtraction up to 5 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations - Understand subtraction as taking away and taking apart - Recognize and name the shape circle - Recognize and name the shape square - Recognize and name the shape rectangle - Recognize and name the shape triangle - Recognize and name the shape hexagon - Recognize if a shape is two-dimensional (flat) - Classify objects into given categories - Count the number of objects in each category - Sort categories by count
1 Day	Comprehension Check / Unit Assessments		
Unit 4 - (29 Days) Numbers to 10 and Shapes			
5 Days	Lesson 11 Count, Show, and Write Numbers 6 to 10	K.CC.A.1, K.CC.A.3, K.CC.B.5	<ul style="list-style-type: none"> - Count to 100 by 1's - Count to 100 by 10's

			<ul style="list-style-type: none"> - Write the numbers 0 to 20 - Count objects up to 20 - Represent objects up to 20 with a written numeral - Count objects and tell how many - Count to answer "how many?" objects up to 20 arranged in a line - Count to answer "how many?" objects up to 20 arranged in a rectangular array - Count to answer "how many?" objects up to 20 arranged in a circle - Count to answer "how many?" objects up to 10 arranged in a scattered configuration
5 Days	Lesson 12 Compare Numbers to 10	K.CC.C.6, K.CC.C.7	<ul style="list-style-type: none"> - Identify a group of objects that has the greater amount - Identify a group of objects that has the lesser amount - Identify groups that have an equal amount of objects - Tell which number is greater than or less than up to 10
5 Days	Lesson 13 Compose Shapes	K.G.B.4, K.G.B.6	<ul style="list-style-type: none"> - Analyze and compare two- and three-dimensional shapes, in different sizes and orientations to describe their similarities <p>Analyze and compare</p>

			<p>two- and three-dimensional shapes, in different sizes and orientations to describe their differences</p> <p>Analyze and compare two- and three-dimensional shapes, in different sizes and orientations to describe their parts and other attributes</p> <p>- Compose simple shapes to form larger shapes</p>
5 Days	Lesson 14 Compose and Decompose 10	K.OA.A.1	<p>- Recognize the symbols $+$, $=$</p> <p>- Represent addition up to 10 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations</p> <p>- Understand addition as putting together and adding to</p> <p>- Recognize the symbols $-$, $=$</p> <p>- Represent subtraction up to 10 with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations</p> <p>- Understand subtraction as taking away and taking apart</p>
5 Days	Lesson 15 Find Number Partners for 10	K.OA.A.4	<p>- Find the number that makes 10 when added to the given number</p>
3 Days	Math in Action - Plan a Playground	K.G.B.6, K.CC.B.5, K.CC.C.6, K.OA.A.4,	<p>- Compose simple shapes</p>

		K.DL.A.1	<p>to form larger shapes</p> <ul style="list-style-type: none"> - Count objects and tell how many - Count to answer "how many?" objects up to 20 arranged in a line - Count to answer "how many?" objects up to 20 arranged in a rectangular array - Count to answer "how many?" objects up to 20 arranged in a circle - Count to answer "how many?" objects up to 10 arranged in a scattered configuration - Identify a group of objects that has the greater amount - Identify a group of objects that has the lesser amount - Identify groups that have an equal amount of objects - Find the number that makes 10 when added to the given number - Classify objects into given categories - Count the number of objects in each category - Sort categories by count
1 Day	Comprehension Check / Unit Assessments		

Strategies for Multilingual Learners

- Chunking material
- Extended Time
- Graphic Organizers
- Higher level vocabulary incorporation
- Individual Goal Setting
- Peer Modeling
- Peer Tutoring
- Preferential Seating
- Provide desk number line
- Provide pictures and visuals
- Repetition of directions
- Tasks broken down into small sequential steps
- Tiered Assignments / Activities with individual goals
- Use of word wall

Strategies for Students in Need of Intervention

- Anchor chart
- Block designs
- Build and break activity (unifix cubes)
- Clip cards
- Dominoes, legos, links, unifix cubes, two sided counters
- Extended pacing of lessons
- Hands on manipulatives (straws, popsicle sticks, geo boards, wiki sticks)
- I have... who has games
- Incorporate centers to reinforce new skills
- Multisensory approach to lessons
- Number bond activities
- Number formation rhymes
- Number mazes
- Number puzzles
- Number recognition and counting rhymes
- Reduce amount of problems
- Roll and solve with dice
- Shake and spill activity (two sided counters)
- Small group instruction for students who struggle
- Use approaching level materials/assignments

- Use of number line
- Use of visual aids

Technology Integration

- Animal Circus (ipad app) - learning games
- Create a classroom Math Word Wall
- If appropriate, use an interactive anchor chart to introduce or extend a lesson
- Math Bingo (ipad app) - addition and subtraction
- Prior to lesson, engage students by viewing a video on the topic of the lesson (YouTube, connected)
- Small group games, activities, challenges using classroom iPads
- www.abcya.com - addition, counting, shapes, numerical order, number sense, composing and decomposing numbers, math bingo
- www.funbrain.com - number recognition to 10, counting
- www.gonoodle.com - Counting to 100, Skip counting
- www.IXL.com - counting, skip counting, shapes, addition, subtraction, composing and decomposing numbers
- www.mathplayground.com - addition, subtraction, counting, shapes, number bonds to 10
- www.pbskids.org - Counting (Peg's Pizza Place, Rock Art, Martha Seeks), Shapes (Paint-a-long, Stack to the Sky)
- www.starfall.com - addition, subtraction, shapes, calendar skills, math songs, counting to 10

Interdisciplinary Connections

- Connection to Art: Students can draw and create objects using two-dimensional shapes.
- Connection to Music: Students sing counting songs, number rhymes, number writing songs, etc.
- Connection to PE: Students apply different types of movement to count.
- Connection to Reading Comprehension by using the 3 read strategy.
- Connection to Writing: Students apply drawing and writing skills when writing numbers, drawing shapes, writing addition and subtraction number sentences, and drawing visuals to compose and decompose numbers.

21st Century Skills or Career Ready Practices

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.
WRK.9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.

CAEP.9.2.4.A.4	Explain why knowledge and skills acquired in the elementary grades lay the foundation for future academic and career success.
TECH.9.4.2.CT.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
TECH.9.4.2.TL.3	Enter information into a spreadsheet and sort the information.
TECH.9.4.2.IML.1	Identify a simple search term to find information in a search engine or digital resource.
TECH.9.4.2.IML.2	Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
TECH.9.4.2.IML.4	Compare and contrast the way information is shared in a variety of contexts (e.g., social, academic, athletic) (e.g., 2.2.2.MSC.5, RL.2.9).