Second Grade Mathematics - Number Corner

Curriculum/Content Area: Mathematics	Course Length: School Year
Course Title: Second Grade Mathematics - Number Corner	Date last reviewed: February 2nd, 2016 Previous Second Grade UBD
Prerequisites: NA	Board approval date: TBD
Primary Resource: Bridges in Mathematics	

Desired Results

Course description and purpose: This framework for improving student learning focuses on high-quality math standards. It provides teachers with a clear set of math concepts and skills for students to understand and be able to do by the end of the school year.

Mathematical Practice Standards

The Standards for Mathematical Practice are central to the teaching and learning of mathematics. These practices describe the behaviors and habits of mind that are exhibited by students who are mathematically proficient. Mathematical understanding is the intersection of these practices and mathematics content. It is critical that the Standards for Mathematical Practice are embedded in daily mathematics instruction.

	Mathema	ntical Practice Standards	Grade Level/Course Explanation
		MP.1 Make sense of problems and persevere in solving them	Second graders develop strategies for solving problems and persevere in their efforts to solve them. They evaluate whether their answers make sense and when they don't, they become better able to troubleshoot those challenges.
taki whe in w dev	Second graders learn to attend to precision when taking measurements, performing calculations and when communicating their thinking both verbally and in written form. An appreciation for precision is developing as students understand its importance and self-correct as necessary.		
	Reasoning & Explaining	MP.2 Reason abstractly and quantitatively.	Second graders use manipulatives, drawings and equations to represent problems and their strategies for solving them. They can think about the problem in context (contextualize) and think about it out of context (decontextualize) when solving.
		MP.3 Construct viable	Second graders describe their understanding of a

	arguments and critique the reasoning of others.	problem and their strategies for solving them using pictures, equations, and words. They listen to others and ask questions to learn and make connections between others' thinking and their own.
Modeling &	MP.4 Model with mathematics.	Second graders model mathematical situations with objects, drawings, actions, numbers, tables and graphs, drawing connections between these ways of modeling a situation or problem.
Using Tools	MP.5 Use appropriate tools strategically.	Second graders use a variety of tools, manipulatives, computational strategies and technological materials with increased proficiency in their use and improve in their ability to select the appropriate helpful tool for the task at hand
Seeing	MP.7 Look for and make use of structure.	Second graders look for patterns and structure that contribute to their mathematical learning and development of efficient strategies for performing mathematical tasks.
Structure & Generalizing	#8 Look for and express regularity in repeated reasoning.	Second graders notice repetitive actions when exploring new mathematical concepts that help them make generalizations and develop efficient strategies for counting, calculating, and more in depth problem solving.

Priority Standard Clusters

2.0A.A Represent and solve problems involving addition and subtraction.

• <u>2.0A.1</u> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.1</u> Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
- 2.NBT.1a 100 can be thought of as a bundle of ten tens called a "hundred."
- <u>2.NBT.1b</u> The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
- 2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- 2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones

digits, using >, =, and < symbols to record the results of comparisons.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.5</u> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- <u>2.NBT.6</u> Add up to four two-digit numbers using strategies based on place value and properties of operations.
- <u>2.NBT.7</u> Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- <u>2.NBT.9</u> Explain why addition and subtraction strategies work, using place value and the properties of operations.

2.MD.A Measurement and estimate lengths in standard units.

- <u>2.MD.1</u> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- <u>2.MD.2</u> Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- 2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.
- <u>2.MD.4</u> Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

2.MD.B Relate addition and subtraction to length.

- <u>2.MD.5</u> Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
- <u>2.MD.6</u> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Supporting Standard Clusters

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

- <u>2.0A.3</u> Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
- <u>2.0A.4</u> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.C Work with time and money.

- <u>2.MD.7</u> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- <u>2.MD.8</u> Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$
 and \$\cap\$ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do
 you have?

2.MD.D Represent and interpret data.

• <u>2.MD.9</u> Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

• <u>2.MD.10</u> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

2.G.A Reason with shapes and their attributes.

- <u>2.G.1</u> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- <u>2.G.2</u> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- <u>2.G.3</u> Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

September

Unit Overview: A variety of basic skills are the focus of this unit. Skills include additions and subtraction fact strategies and story problems to 20, even and odd numbers, time to the hour and counting by 10's to 200.

Unit Standards

Priority Standards

2.0A.A Represent and solve problems involving addition and subtraction.

• <u>2.0A.1</u> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

- <u>2.0A.3</u> Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.
- <u>2.0A.4</u> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.B Relate addition and subtraction to length.

• <u>2.MD.6</u> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Prior Grade Supporting Standards - Reviewed in Unit

1.MD.B Tell and write time.

• 1.MD.3 Tell and write time in hours and half-hours using analog and digital clocks.

Learning Targets

2nd Grade Priority:

Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6
Reasoning & Explaining	MP.2Computational FluencyNumber Line	MP.3
Modeling & Tools	 MP.4 Calendar Grid Daily Rectangle Number Line 	MP.5
Seeing Structure & Generalizing	MP.7 Calendar Grid Calendar Collector Daily Rectangle	MP.8

- I solve one and two step addition/subtraction number stories and write a matching open number model with a variable for the unknown in all positions. (2.OA.1)
 - Calendar Grid
- I plot measurements on an open number line to solve addition and subtraction number stories and write the corresponding number model using a symbol for the unknown. (2.0A.1)
 - Number Line
- I fluently add/subtract within 20 using mental strategies.(2.OA.2)
 - Calendar Grid
 - o Daily Rectangle
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - Calendar Collector
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Calendar Grid
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I plot measurements on an open number line to solve addition and subtraction number stories

and write the corresponding number model using a symbol for the unknown. (2.MD.6)

- Computational Fluency
- o Number Line

2nd Grade Supporting:

- I identify 1-digit numbers as odd and even. (2.0A.3)
 - o Calendar Grid
 - Daily Rectangle
- I write each even number up to 20 as the sum of two equal addends. (2.0A.3)
 - Calendar Grid
 - Daily Rectangle
- I determine if a group of up to 20 objects or a number less than 1000 is odd or even. (2.0A.3)
 - o Calendar Grid
 - Daily Rectangle
- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - Daily Rectangle

Prior Grade Review:

- I tell and write time to the hour using analog and digital clocks. (1.MD.3)
 - Calendar Collector

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

ALEKS and Dreambox

October

Unit Overview: This unit reviews addition and subtraction combinations to 10 to build computational fluency. Students will read, write, compare and compute with 2- and 3- digit numbers. Repeated addition is introduced within the context of repeating patterns, minutes on the clock and arrays.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- <u>2.NBT.4</u> Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

• <u>2.0A.4</u> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.C Work with time and money.

• <u>2.MD.7</u> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Learning Targets

2nd Grade Priority:

Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6 • Calendar Collector
Reasoning & Explaining	 MP.2 Calendar Grid Computational Fluency Number Line 	MP.3
Modeling & Tools	MP.4 Daily Rectangle Computational Fluency Number Line	MP.5
Seeing Structure & Generalizing	MP.7 Calendar Grid Calendar Collector Daily Rectangle Computational Fluency	MP.8 • Calendar Grid

- I fluently add/subtract within 20 using mental strategies(2.0A.2)
 - Computational Fluency
- I write number sentences from a group of numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - o Calendar Collector
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)

- Calendar Collector
- Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I order numbers or compare numbers less than 1,000 using <, >, = symbols. (2.NBT.A.4)
 - Number Line

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - Calendar Grid
 - Daily Rectangle
- I tell time to the nearest five minutes, record it in digital notation, and correctly indicate AM or PM. (2.MD.7)
 - o Calendar Collector

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention
ALEKS and Dreambox

November

Unit Overview: This unit reviews telling time to the hour and half-hour, and students will learn to tell time to the quarter-hour on both an analog and a digital clock. Length measurement is practices, and computational fluency for addition and subtraction is developed through review of Doubles and Doubles Plus or Minus One. Understanding of arrays through rows and columns is developed.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

• 2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.

- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

• <u>2.OA.4</u> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.A Measurement and estimate lengths in standard units.

• <u>2.MD.2</u> Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.C Work with time and money.

• <u>2.MD.7</u> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Learning Targets

2nd Grade Priority:

Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6 Calendar Grid Calendar Collector
Reasoning & Explaining	MP.2 Calendar Grid Computational Fluency	MP.3
Modeling & Tools	 MP.4 Daily Rectangle Computational Fluency Number Line 	MP.5
Seeing Structure & Generalizing	MP.7	MP.8

- I fluently add/subtract within 20 using mental strategies. (2.0A.2)
 - Computational Fluency
- I write number sentences form a group of numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - o Calendar Grid

- Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - o Calendar Grid
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I mentally add and subtract 10 or 100 to/from 2-digit and 3-digit numbers (11 to 999).
 (2.NBT.8)
 - Number Line
- I measure the same object using different units and describe how the measurements relate to the size of the units. (2.MD.2)
 - Calendar Collector

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - Daily Rectangle
- I tell time to the nearest five minutes, record it in digital notation, and correctly indicate AM or PM. (2.MD.7)
 - Calendar Grid

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

ALEKS and Dreambox

December

Unit Overview: This unit features 2-d shapes and emphasizes quadrilaterals and symmetry. Students conduct class surveys to collect data. Arrays are extended to include writing equations, and computational fluency includes Add Ten and Add Nine facts, as well as the related subtraction facts.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.1</u> Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
- 2.NBT.1a 100 can be thought of as a bundle of ten tens called a "hundred."
- <u>2.NBT.1b</u> The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.6</u> Add up to four two-digit numbers using strategies based on place value and properties of operations.
- <u>2.NBT.7</u> Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.

Supporting Standards

2.MD.D Represent and interpret data.

• <u>2.MD.10</u> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

2.G.A Reason with shapes and their attributes.

- <u>2.G.1</u> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- <u>2.G.3</u> Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Learning Targets

Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6
Reasoning & Explaining	MP.2	MP.3
Modeling & Tools	MP.4 • Calendar Collector	MP.5

	Daily RectangleComputational FluencyNumber Line	
Seeing Structure & Generalizing	 MP.7 Calendar Grid Calendar Collector Daily Rectangle Computational Fluency Number Line 	MP.8

2nd Grade Priority:

- I fluently add/subtract within 20 using mental strategies. (2.OA.2)
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I understand the three digits of a 3-digit number represent amounts and values of hundreds, tens, and ones. (2.NBT.1)
 - Number Line
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I add three or four numbers by reordering the addends (the Associative Property). (2.NBT.6)
 - Module # Session # Title (List Modules & Sessions in unit where this unit is taught)
- I add up to four 2-digit numbers based on place value strategies. (2.NBT.6)
 - Daily Rectangle
- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - Number Line
- I mentally add and subtract 10 or 100 to/from 2-digit and 3-digit numbers (11 to 999).
 (2.NBT.8)
 - Number Line

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - Daily Rectangle
- I create a bar graph or pictograph to represent a data set up to four categories and analyze/synthesize the information displayed. (2.MD.10)
 - o Calendar Collector
- I identify, draw, and describe 2- dimensional shapes based on their attributes. (2.G.1)
 - o Calendar Grid

- I identify or represent a fraction of a region. (2.G.3)
 - o Calendar Grid
- I divide a circle or rectangle into 2, 3, or 4 equal parts and describe the whole in terms of the parts. (2.G.3)
 - Calendar Grid
- I demonstrate my understanding that equal sizes of the same whole may have different shapes. (2.G.3)
 - Calendar Grid

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

ALEKS and Dreambox

January

Unit Overview: Students are given opportunities to read and interpret picture graphs. Computational fluency strategies already learned are reinforced and a new subtraction strategy called Up to Ten is taught. Adding and subtracting 10 and 100 from 3-digit numbers on a number line is also practiced in this unit.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value...

- 2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.5</u> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- <u>2.NBT.6</u> Add up to four two-digit numbers using strategies based on place value and properties of operations.
- 2.NBT.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting

- three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- <u>2.NBT.9</u> Explain why addition and subtraction strategies work, using place value and the properties of operations.

2.MD.B Relate addition and subtraction to length.

• <u>2.MD.6</u> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

• <u>2.0A.4</u>) Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.D Represent and interpret data.

• <u>2.MD.10</u> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

2.G.A Reason with shapes and their attributes.

2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares
using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves,
three thirds, four fourths. Recognize that equal shares of identical wholes need not have the
same shape.

Learning Targets

	Mathematical Practice Standard Connections	
Habits of Mind	MP.1	MP.6
Reasoning & Explaining	MP.2Calendar GridCalendar CollectorNumber Line	MP.3Calendar CollectorComputational Fluency
Modeling & Tools	 MP.4 Calendar Grid Daily Rectangle Computational Fluency Number Line 	MP.5
Seeing Structure & Generalizing	MP.7	MP.8

- I fluently add/subtract within 20 using mental strategies.(2.0A.2)
 - Computation Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (2.NBT.5)
 - Daily Rectangle
- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - Number Line
- I mentally add and subtract 10 or 100 to/from 2-digit and 3-digit numbers (11 to 999).
 (2.NBT.8)
 - Number Line
- I explain why addition/subtraction strategies work. (2.NBT.9)
 - Daily Rectangle
 - Number Line
- I plot measurements on an open number line to solve addition and subtraction number stories and write the corresponding number model using a symbol for the unknown. (2.MD.6)
 - Computational Fluency
 - Number Line

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - o Daily Rectangle
- I create a bar graph or pictograph to represent a data set up to four categories and analyze/synthesize the information displayed. (2.MD.10)
 - o Calendar Grid
 - Calendar Collector
- I identify or represent a fraction of a region. (2.G.3)
 - Calendar Collector
- I divide a circle or rectangle into 2, 3, or 4 equal parts and describe the whole in terms of the parts. (2.G.3)
 - Calendar Collector
- I demonstrate my understanding that equal sizes of the same whole may have different shapes. (2.G.3)
 - Calendar Collector

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

ALEKS and Dreambox

February

Unit Overview: This unit emphasizes story problems, telling time, as well as 2- and 3-digit addition. Computational fluency moves towards mastery of addition facts to 18.

Unit Standards

Priority Standards

2.OA.A Represent and solve problems involving addition and subtraction.

• <u>2.0A.1</u> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value..

- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.5</u> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- <u>2.NBT.7</u> Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.9</u> Explain why addition and subtraction strategies work, using place value and the properties of operations.

Supporting Standards

2.MD.C Work with time and money.

• <u>2.MD.7</u> Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Learning Targets

2nd Grade Priority:

	Mathematical Practice Standard Connections		
Habits of Mind	MP.1 • Calendar Grid	MP.6	
Reasoning & Explaining	MP.2 Calendar Grid Daily Rectangle	MP.3 Calendar Grid Daily Rectangle	
Modeling & Tools	MP.4	MP.5	
Seeing Structure & Generalizing	MP.7 Calendar Collector Computational Fluency Number Line	MP.8Calendar CollectorComputational Fluency	

- I solve an addition number story or write a number story to describe a picture or number sentence. (2.0A.1)
 - o Calendar Grid
- I solve one and two step addition/subtraction number stories and write a matching open number model with a variable for the unknown in all positions. (2.0A.1)
 - o Calendar Grid
- I fluently add/subtract within 20 using mental strategies.(2.0A.2)
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (2.NBT.5)
 - Calendar Grid
- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - Calendar Grid
 - Daily Rectangle
- I explain why addition/subtraction strategies work. (2.NBT.9)

Daily Rectangle

2nd Grade Supporting:

- I tell time to the nearest five minutes, record it in digital notation, and correctly indicate AM or PM. (2.MD.7)
 - o Calendar Collector

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

Dreambox

March

Unit Overview: This unit features three-dimensional shapes with an emphasis on faces, edges, and vertices. Money and fractions conversations support understanding of "quarter," and 2- and 3-digit subtraction is reinforced through the use of base ten pieces. Mastery of addition facts to 20 continues through a timed routine.

Unit Standards

Priority Standards

2.OA.A Represent and solve problems involving addition and subtraction.

• <u>2.0A.1</u> Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value...

• <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.5</u> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- <u>2.NBT.7</u> Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting

- three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.9</u> Explain why addition and subtraction strategies work, using place value and the properties of operations.

Supporting Standards

2.MD.C Work with time and money.

<u>2.MD.8</u> Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$
and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do
you have?

2.G.A Reason with shapes and their attributes.

- <u>2.G.1</u> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- <u>2.G.3</u> Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Learning Targets

2nd Grade Priority:

Mathematical Practice Standard Connections		
Habits of Mind	MP.1 • Number Line	MP.6
Reasoning & Explaining	MP.2 Calendar Collector Daily Rectangle	MP.3
Modeling & Tools	MP.4 Calendar Grid Calendar Collector	MP.5
Seeing Structure & Generalizing	 MP.7 Calendar Grid Calendar Collector Computational Fluency 	MP.8Daily RectangleComputational Fluency

- I solve an addition number story or write a number story to describe a picture or number sentence. (2.0A.1)
 - Number Line
- I solve one and two step addition/subtraction number stories and write a matching open number model with a variable for the unknown in all positions. (2.0A.1)
 - Number Line
- I fluently add/subtract within 20 using mental strategies. (2.0A.2)
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency

- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I write numbers up to 1,000 in expanded form. (2.NBT.3)
 - Number Line
- I fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (2.NBT.5)
 - Number Line
- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - Daily Rectangle
 - Number Line
- I explain why addition/subtraction strategies work. (2.NBT.9)
 - Daily Rectangle
 - Number Line

2nd Grade Supporting:

- I count a collection of coins to an identified value. (2.MD.8)
 - Calendar Collector
- I calculate the value of coin and bill combinations using a cents symbol and dollar sign or draw a value using \$1, quarters, dimes, nickels, and pennies including those in number stories. (2.MD.8)
 - Calendar Collector
- I solve word problems involving dollar bills, quarters, dimes, nickels, and pennies. (2.MD.8)
 - o Calendar Collector
 - Number Line
- I identify, draw, and describe 2- dimensional shapes based on their attributes. (2.G.1)
 - o Calendar Grid
- I identify and describe 3-dimensional shapes based on their attributes. (2.G.1)
 - Calendar Grid
- I divide a circle or rectangle into 2, 3, or 4 equal parts and describe the whole in terms of the parts. (2.G.3)
 - o Calendar Collector
- I demonstrate my understanding that equal sizes of the same whole may have different shapes. (2.G.3)
 - o Calendar Collector

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

April

Unit Overview: Fractions of a whole and fractions of a set are featured in this unit along with measurement and data collection. Finding the area of rectangles is practiced and addition facts to 20 continues to be highlighted for mastery. Using the number line to count in increments of 1,5, 10 and more is practiced too.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- <u>2.NBT.5</u> Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- <u>2.NBT.7</u> Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.

2.MD.A Measurement and estimate lengths in standard units.

- <u>2.MD.1</u> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes..
- <u>2.MD.4</u> Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

2.MD.B Relate addition and subtraction to length.

• <u>2.MD.6</u> Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

• <u>2.0A.4</u>) Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.D Represent and interpret data.

• <u>2.MD.9</u> Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

2.G.A Reason with shapes and their attributes.

- <u>2.G.2</u> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- <u>2.G.3</u> Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Learning Targets

2nd Grade Priority:

	Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6	
Reasoning & Explaining	MP.2	MP.3	
Modeling & Tools	 MP.4 Calendar Grig Calendar Collector Daily Rectangle 	MP.5 • Calendar Collector	
Seeing Structure & Generalizing	MP.7 Calendar Grid Computational Fluency Number Line	MP.8	

- I fluently add/subtract within 20 using mental strategies. (2.0A.2)
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency
- I write number sentences from a group of numbers. (2.0A.2)
 - Computational Fluency
- I construct fact families for addition and subtraction. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - Number Line
- I fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. (2.NBT.5)
 - Number Line

- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - Number Line
- I mentally add and subtract 10 or 100 to/from 2-digit and 3-digit numbers (11 to 999).
 (2.NBT.8)
 - Number Line
- I measure to find the difference in the length of two objects. (2.MD.4)
 - o Calendar Collector

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.OA.4)
 - o Daily Rectangle
- I divide shapes into equal parts. (2.G.2)
 - Daily Rectangle
- I use fractions to describe the equal parts of a shape. (2.G.2)
 - Module # Session # Title (List Modules & Sessions in unit where this unit is taught)
- I identify or represent a fraction of a region. (2.G.3)
 - Calendar Grid
- I divide a circle or rectangle into 2, 3, or 4 equal parts and describe the whole in terms of the parts. (2.G.3)
 - Calendar Grid
- I demonstrate my understanding that equal sizes of the same whole may have different shapes. (2.G.3)
 - o Calendar Grid

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention

ALEKS and Dreambox

May

Unit Overview: This unit supports student thinking using number grids and number lines to add and subtract 10 and 100 from any 3-digit number. Measurement and data collection continue to be reviewed and mastery of addition facts to 20 are supported through a timed routine. Activities centering around the rectangle and its dimensions begins to develop the

connections between the dimensions of a rectangle and its area.

Unit Standards

Priority Standards

2.OA.B Add and subtract within 20.

• <u>2.0A.2</u> Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

2.NBT.A Understand Place Value.

- <u>2.NBT.2</u> Count within 1000; skip-count by 5s, 10s, and 100s.
- <u>2.NBT.3</u> Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.B Use place value understanding and properties of operations to add and subtract.

- 2.NBT.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.
- <u>2.NBT.8</u> Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.

2.MD.A Measurement and estimate lengths in standard units.

- <u>2.MD.1</u> Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- <u>2.MD.4</u> Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Supporting Standards

2.OA.C Work with equal groups of objects to gain foundations for multiplication.

• <u>2.0A.4</u> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

2.MD.D Represent and interpret data.

• <u>2.MD.9</u> Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

2.G.A Reason with shapes and their attributes.

• <u>2.G.2</u> Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

Learning Targets

Mathematical Practice Standard Connections		
Habits of Mind	MP.1	MP.6Calendar CollectorComputational Fluency
Reasoning & Explaining	MP.2 • Calendar Grid	MP.3

	Daily RectangleNumber Line	
Modeling & Tools	MP.4 Calendar Grid Calendar Collector	MP.5
Seeing Structure & Generalizing	MP.7 Calendar Grid Daily Rectangle Computational Fluency Number Line	MP.8

2nd Grade Priority:

- I fluently add/subtract within 20 using mental strategies.(2.OA.2)
 - Computational Fluency
- I know from memory all sums of 2 one digit numbers. (2.0A.2)
 - Computational Fluency
- I count up by 5s, 10s orally and in writing, starting with a variety of numbers. (2.NBT.2)
 - o Calendar Grid
 - Number Line
- I skip count by 1s, 5s, 10s, and 100s up to 1,000. (2.NBT.2)
 - Calendar Grid
 - Number Line
- I read, write, and model numbers up to 4-digits shown with base-10 blocks, including numbers with 0 as a place holder. (2.NBT.3)
 - o Calendar Grid
 - Number Line
- I solve addition and subtraction problems within 1,000 using an open number line and/or computation strategy. (2.NBT.7)
 - o Calendar Grid
 - Number Line
- I mentally add and subtract 10 or 100 to/from 2-digit and 3-digit numbers (11 to 999).
 (2.NBT.8)
 - o Calendar Grid
 - Number Line
- I measure an object to the nearest inch and to the nearest centimeter.(2.MD.1)
 - Calendar Collector
- I measure to find the difference in the length of two objects. (2.MD.4)
 - o Calendar Collector

2nd Grade Supporting:

- I represent multiplication problems by creating a model and write an equation to find the total as a sum of equal addends. (2.0A.4)
 - Daily Rectangle
- I create a line plot to represent a data set up to four categories and analyze/synthesize the information displayed. (2.MD.9)
 - o Calendar Collector

- I divide shapes into equal parts. (2.G.2)
 - o Daily Rectangle

Assessment Evidence

Performance Assessment Options

May include, but are not limited to the following:

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Other assessment options

May include, but are not limited to the following:

- Baseline Assessment
- Number Corner Check Up

Digital Tools & Supplementary Resources

Bridges Intervention ALEKS and Dreambox