Grade 2 Mathematics

Units of Study	
Unit 1	Number Sense to 1,000 (28 days) August 24 - October 2
Unit 2	Addition within 100 (23 days) October 5 - November 6
Unit 3	Addition within 1,000 (13 days) November 9 - December 1
Unit 4	Geometry- Shapes (5 days) December 2 - December 9
Unit 5	Data Analysis (5 days) December 10 - December 18
Unit 6	Subtraction within 100 (Culmination Addition/Subtraction within 100) (28 days) January 4 - February 11
Unit 7	Subtraction within 1,000 (Culmination Addition/Subtraction within 1,000) (15 days) February 12 - March 3
Unit 8	Time (11 days) March 4 - March 19
Unit 9	Money (10 days) March 22 - April 9
Unit 10	Fractions (5 days) April 12 - April 16
Unit 11	Measurement (10 days) April 19 - April 30
Unit 12	Beginning Multiplication (5 days) May 3 - May 7

Green: Priority Standards **Pink**: Supporting Standards

			Units											
			1	2	3	4	5	6	7	8	9	10	11	12
Standards	NS	1	X											
		2	X											
		3	X											
		4	X											
		5	X											
		6	X											
		7	X											
	CA	1		X				X						
		2		X				X						
		3		X				X						
		4			X				X					
		5												X
		6		X	X									
		7			X				X					
	G	1				X								
		2				X								
		3				X								
		4												X
		5										X		
	M	1											X	
		2											X	

		3											X	
		4											X	
		5								X				
		6								X				
		7									X			
	DA	1					X							

Unit 1- **Number Sense to 1,000**

<table>
<tr><td colspan="2"><u>General Description of the Unit</u>
Students will kick off the year with a review of number sense. Students will expand their base-ten number system by reading and writing whole numbers up to 1,000 and using words, models, and expanded form to represent these numbers. They will plot and compare numbers on a number line. Students will use place value to understand that three digits of a three-digit number represent amounts of hundreds, tens, and ones and match ordinal numbers with sets up to 30.</td></tr>
<tr><td><u>Priority Standards</u>
2.NS.2: Read and write whole numbers up to 1,000. Use words, models, standard form and expanded form to represent and show equivalent forms of whole numbers up to 1,000.
2.NS.3: Plot and compare whole numbers up to 1,000 on a number line.
2.NS.6: 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 that 100 can be thought of as a group of ten tens — called a “hundred." Understand that 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).</td><td><u>Supporting Standards</u>
2.NS.1: Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number.
2.NS.4: Match the ordinal numbers first, second, third, etc., with an ordered set up to 30 items.
2.NS.5: Determine whether a group of objects (up to 20) has an odd or even number of members (e.g., by placing that number of objects in two groups of the same size and recognizing that for even numbers no object will be left over and for odd numbers one object will be left over, or by pairing objects or counting them by 2’s).
2.NS.7: Use place value understanding to compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.</td></tr>
<tr><td><u>Proficiency Scales</u>
<u>2.NS.2</u>
<u>2.NS.3</u>
<u>2.NS.6</u></td><td><u>Tiered Assessments</u></td></tr>
</table>

Enduring Understandings	**Essential Questions**
● Three-digit numbers are created using groups of hundreds, tens, and ones and can be represented in multiple ways. ● Using number sense, numbers can be compared and ordered. ● Ordinal numbers are used to indicate a position or ranking. ● Numbers that can be evenly divided by 2 are called even numbers. Numbers that cannot be evenly divided by 2 are called odd numbers.	● How are the numbers 342 and 423 alike? How are they different? ● What are all of the ways you can think of to represent the number 781? What ways could you represent 781 if you could only use tens and ones? ● What is an example of something where 951 would be a large amount? A small amount? A likely amount? An impossible amount? ● How/when do you use ordinal numbers in your life?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can read and write numbers to 1,000 in standard form. (2.NS.2) ● I can read and write numbers to 1,000 in word form. (2.NS.2) ● I can read and write numbers to 1,000 in expanded form. (2.NS.2) ● I can use models to represent numbers up to 1,000. (2.NS.2) ● I can show and represent equivalent numbers in in word, standard and expanded form and using models. (2.NS.2) ● I can plot numbers to 1,000 on a number line. (2.NS.3)	● I can count on by ones from any number up to 1,000. (2.NS.1) ● I can count on by twos from any number up to 1,000. (2.NS.1) ● I can count on by fives from any number up to 1,000. (2.NS.1) ● I can count on by tens from any number up to 1,000. (2.NS.1) ● I can count on by hundreds from any number up to 1,000. (2.NS.1) ● I can match numbers with their ordinals in an ordered set with up to 30 items. (2.NS.4) ● I can use greater than, less than, and equal to signs to compare two, three digit numbers. (2.NS.7)	● Compare ● Count on ● Equal ● Equivalent numbers ● Even ● Expanded form ● Greater than ● Hundreds ● Less than ● Number line ● Odd ● Ones ● Ordinal ● Place Value ● Plot ● Standard form

• I can use a number line to compare numbers up to 1,000. (2.NS.3) • I can understand that the digit in the hundreds place represents how many hundreds are in the number. (2.NS.6) • I can understand that the digit in the tens place represents how many tens are in the number. (2.NS.6) • I can understand that the digit in the ones place represents how many ones are in the number. (2.NS.6) • I can understand that the number 100 can be made by making ten groups of ten. (2.NS.6) • I can understand that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds. (2.NS.6)	• I can use place value understanding to compare two, three-digit numbers. (2.NS.7) • I can determine if a group of objects is odd or even. (2.NS.5) • I can separate an even number of objects up to 20 into two equal groups. (2.NS.5) • I can separate an odd number of objects into two equal groups with one left over. (2.NS.5) • I can place an even number of objects into pairs. (2.NS.5) • I can place an odd number of objects into pairs with one left over. (2.NS.5) • I can count an even number of objects by 2's. (2.NS.5) • I can count an odd number of objects by 2's with one left over. (2.NS.5)	• Tens • Word form

Mathematical Processes

- *PS.1 Make sense of problems and persevere in solving them.*
  - Explain the meaning of a given problem by analyzing explicit evidence.
  - Consider similar problems to gain insights.

Resources

Textbook	Digital	Manipulatives
Lesson 4 Understand Even and Odd Numbers 5 days **Lesson 10 Understand Three-Digit Numbers** 5 days **Lesson 11 Read and Write Three-Digit Numbers** 4 days **Lesson 12a Compare Three-Digit Numbers** 4 days **Lesson 12b Represent and Compare Three-Digit Numbers** 5 days ***Need to supplement NS.1 and NS.4 (supporting standards)**	IDOE Examples/Tasks 2.NS.1 IDOE Examples/Tasks 2.NS.2 IDOE Examples/Tasks 2.NS.3 IDOE Examples/Tasks 2.NS.4 IDOE Examples/Tasks 2.NS.5 IDOE Examples/Tasks 2.NS.6 IDOE Examples/Tasks 2.NS.7 iReady/Model 3 Digit Numbers 2.NS.2 iReady/Compare and Order 3 Digit Numbers 2.NS.3 iReady/Read and Write 3 Digit Numbers 2.NS.2	Base Ten Blocks Base Ten Blocks Version 2 Place-Value Mat Place-Value Chart Number Line Number Line Version 2

Unit 2- **Addition within 100**

<table>
<tr><td colspan="2"><u>General Description of the Unit</u>
Students will solve real-world problems involving addition within 100. They will use a variety of strategies such as adding to, putting together, etc. with unknowns in all parts of the addition problem. Students will use estimation to determine whether answers are reasonable in addition problems.</td></tr>
<tr><td><u>Priority Standards</u>
2.CA.2: Solve real-world problems involving addition and subtraction within 100 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using drawings and equations with a symbol for the unknown number to represent the problem). Use estimation to decide whether answers are reasonable in addition to problems.</td><td><u>Supporting Standards</u>
2.CA.:1 Add and subtract fluently within 100.
2.CA.3: Solve real-world problems involving addition and subtraction within 100 in situations 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).
2.CA.6: Show that the order in which two numbers are added (commutative property) and how the numbers are grouped in addition (associative property) will not change the sum. These properties can be used to show that numbers can be added in any order.</td></tr>
<tr><td><u>Proficiency Scales</u></td><td><u>Tiered Assessments</u></td></tr>
</table>

2.CA.2	
Enduring Understandings ● Addition and subtraction have an inverse relationship. ● Estimates help me decide whether answers are reasonable in addition word problems. ● Drawings and equations can be used to represent the unknown. ● Different strategies can be used to add or subtract numbers to 100. ● When using 3 addends in a commutative property the sum will be the same.	**Essential Questions** ● Use the numbers 32 and 46 to create a real-world problem. ● What strategies can you use to solve real- world problems for numbers up to 1000? ● Why does 24 plus 17 have the same sum as 17 plus 24? ● How can you estimate a 2 digit sum to check the solution of a problem? ● How does understanding 19+36=45, help us understand 45-36=19? ● Why does 5+8+5 = the same as 5+5+8?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can solve real-world problems involving addition within 100. (2.CA.2) ● I can use estimation to decide whether my sums are reasonable. (2.CA.2) ● I can use drawings and equations with a symbol for the unknown number to represent the problem. (2.CA.2)	● I can add within 100. (2.CA.1) ● I can solve real-world problems involving adding and subtracting lengths within 100 when given in the same units. (2.CA.3) ● I can use drawings and equations with symbols representing the unknown number to solve real-world problems involving adding and subtracting lengths within 100. (2.CA.3)	● Addend ● Associative Property ● Commutative Property ● Estimation ● Number Pattern ● Place Value ● Regroup ● Sum ● Centimeter ● Difference ● Equation ● Inch

	• I can show how the order in which two numbers are added won't change the sum. (2.CA.6) • I can show how grouping numbers in different orders will not change the sum. (2.CA.6) • I can show that numbers can be added in any order. (2.CA.6)	• Length • Millimeter • Ruler • Sum

Mathematical Processes

- *PS.2 Reason abstractly and quantitatively.*
  - *o* Make sense of quantities and their relationships in problem situations.
  - o Contextualize a problem.

Resources

Textbook	Digital	Manipulatives
Lesson 1 Understand Mental Math Strategies (fact families) **Lesson 2 Solve One Step Word Problems** **Lesson 3 Understanding Mental Math Strategies (make a 10)** **Lesson 7 Add Two Digit Numbers**	IDOE Examples/Tasks 2.CA.1 IDOE Examples/Tasks 2.CA.2 IDOE Examples/Tasks 2.CA.3 IDOE Examples/Tasks 2.CA.6 iReady/Adding and Subtracting 10 or 100 2CA.4	120-Board Number Lines Base Ten Blocks Place-Value Mat

	<u>*Need to supplement CA.6 (supporting standards)</u>		

Unit 3- **Addition within 1,000**

<u>General Description of the Unit</u> Students will add within 1,000 using models or drawings and strategies based on place value. They will understand that in adding three-digit numbers, one adds hundreds and hundreds, tens and tens, and ones and ones, composing as necessary into tens or hundreds.	
<u>Priority Standards</u> ● 2.CA.4: Add and subtract within 1,000, using models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and that sometimes it is necessary to compose or decompose tens or hundreds.	**<u>Supporting Standards</u>** ● 2.CA.6: Show that the order in which two numbers are added (commutative property) and how the numbers are grouped in addition (associative property) will not change the sum. These properties can be used to show that numbers can be added in any order. ● 2.CA.7: Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000.

Proficiency Scales **2.CA.4**	**Tiered Assessments**
Enduring Understandings ● Addition is used in problems about joining and subtraction is used in problems about separating or comparing. ● Place value strategies help me to add and subtract accurately. ● Regrouping is a process to compose or decompose ten and hundreds when adding or subtracting. ● Adding or subtracting can be done with models, drawings and strategies based on place value. ● Addition is the inverse of subtraction.	**Essential Questions** ● How does knowing place value help with adding and subtracting numbers to 1,000? ● Use the number 237 and 465 in a story problem. ● How can you create modeling strategy or drawing to add the numbers 531 and 138? ● How do you know when to use addition or subtraction given a word problem? ● When is regrouping needed?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can add and subtract within 1,000 using place value strategies. (2.CA.4) ● I can add within 1,000 using modeling strategies. (2.CA.4) ● I can add within 1,000 by drawing. (2.CA.4)	● I can show how the order in which two numbers are added won't change the sum. (2.CA.6) ● I can show how grouping numbers in different orders will not change the sum. (2.CA.6)	● Addend ● Associative Property ● Commutative Property ● Estimation ● Number Pattern ● Place Value ● Regroup

• I can describe and explain strategies used to add within 1,000. (2.CA.4) • I can show that when adding, I perform the given operation on digits in matching place values. (2.CA.4) • I can use regrouping to add within 1,000. (2.CA.4)	• I can show that numbers can be added in any order. (2.CA.6) • I can create number patterns for addition within 1,000. (2.CA.7) • I can extend number patterns for addition within 1,000. (2.CA.7) • I can state rules for number patterns using addition within 1,000. (2.CA.7)	• Sum

Mathematical Processes

- *PS.1 Make sense of problems and persevere in solving them.*
  - Evaluate whether my solution makes sense in the context of a problem.
- *PS.2 Reason abstractly and quantitatively.*
  - Determine the meaning of symbols, key terms, and other mathematical words or phrases and how they contribute to the solution pathway.

Resources

Textbook	Digital	Manipulatives
Lesson 13 Add Three Digit Numbers 7 days	IDOE Examples/Tasks 2.CA.4 IDOE Examples/Tasks 2.CA.6	120-Board Number Lines

	Lesson 15 Add Several Two Digit Numbers 6 days	IDOE Examples/Tasks 2.CA.7 iReady/2 Digit Addition and Subtraction 2.CA.4 iReady/2 Digit Addition with Regrouping 2.CA.4	Base Ten Blocks Place-Value Mat

Unit 4- **Geometry- Shapes**

General Description of the Unit Students will identify, describe, and classify two- and three-dimensional shapes according to the number of sides, vertices, and/or faces. In addition. students will be able to draw two-dimensional shapes.	
Priority Standards ● 2.G.1: Identify, describe, and classify two- and three-dimensional shapes (triangle, square, rectangle, cube, right rectangular prism) according to the number and shape of faces and the number of sides and/or vertices. Draw two-dimensional shapes.	**Supporting Standards** ● 2.G.2: Create squares, rectangles, triangles, cubes, and right rectangular prisms using appropriate materials. ● 2.G.3: Investigate and predict the result of composing and decomposing two- and three-dimensional shapes.
Proficiency Scales **2.G.1**	**Tiered Assessments**
Enduring Understandings	**Essential Questions**

● Objects can be identified based on their geometric attributes. ● Objects can be described and classified based on their geometric attributes. ● Composites can be formed by combining shapes. ● New shapes can be made by decomposition. ● Two-dimensional shapes have length and width, and three-dimensional shapes add the dimension of height.	● What are all the ways you can describe this box of tissues to someone that couldn't see it? ● If you know that a shape has four sides and four vertices, how would you prove if that shape is a square or a rectangle? ● Other than drawing shapes using a pencil and a ruler, how else can you create two- and three-dimensional shapes? ● When composing and decomposing a shape, how many new geometric shapes can you create? ● Where in our classroom/your home/your neighborhood do you see an example of a _____?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can identify two- and three-dimensional shapes. (2.G.1) ● I can describe two- and three-dimensional shapes. (2.G.1) ● I can classify three-dimensional shapes according to the number and shape of the faces. (2.G.1) ● I can classify two-dimensional shapes according to the number of sides and/or vertices. (2.G.1) ● I can draw two-dimensional shapes. (2.G.1)	● I can create squares. (2.G.2) ● I can create rectangles. (2.G.2) ● I can create triangles. (2.G.2) ● I can create right rectangular prisms. (2.G.2) ● I can investigate the impact of decomposing two- and three-dimensional shapes. (2.G.3) ● I can investigate the impact of composing two- and three-dimensional shapes. (2.G.3) ● I can predict the result of composing two and three dimensional shapes. (2.G.3)	● Compose ● Cube ● Decompose ● Face ● Investigate ● Predict ● Rectangle ● Rectangular Prism ● Sides ● Square ● Three-dimensional ● Triangle ● Two-dimensional ● Vertex

	• I can predict the result of decomposing two and three dimensional shapes. (2.G.3)	

Mathematical Processes

- *PS.7 Look for and make use of structure.*
  - Identify patterns or structure in situations.
  - Create a problem based on mathematical properties and structures.

Resources

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Textbook	**Digital**	**Manipulatives**
Lesson 26 Recognize and Draw Shapes 5days ***Need to supplement G.3**	IDOE Examples/Tasks 2.G.1 IDOE Examples/Tasks 2.G.2 IDOE Examples/Tasks 2.G.3 iReady/Draw and Describe Shapes 2.G.1 iReady/Making New Shapes 2.G.3 iReady/Categories of Plane Figures 2.G.1	Pattern Blocks Pattern Blocks Version 2 Geoboard Tangrams Shape Counters Geometric Solids Interactive Prisms Interactive Triangular/ Rectangular Pyramids Interactive Cylinder Interactive Cone Interactive Spheres Geogebra

Unit 5- **Data Analysis**

General Description of the Unit Students will draw a picture graph with a single-unit scale to represent data that has four choices. Students will draw a bar graph with a single-unit scale to represent data that has four choices. In addition, students will be able to solve simple math problems using the information in the picture graph and bar graph.	
Priority Standards ● 2.DA.1: Draw a picture graph (with single-unit scale) and a bar graph (with single-unit scale) to represent a data set with up to four choices (What is your favorite color? red, blue, yellow, green). Solve simple put-together, take-apart, and compare problems using information presented in the graphs.	**Supporting Standards** ● N/A
Proficiency Scales **2.DA.1**	**Tiered Assessments**
Enduring Understandings ● Different types of graphs such as picture graphs and bar graphs can be used to visually represent data. ● Graphs can be analyzed to answer questions about data. ● The scale on a graph represents the value of a single box or picture in the graph.	**Essential Questions** ● What are graphs used for? How are picture graphs and bar graphs alike? How are they different? ● What question would you like to ask your classmates to gather data about? How will you represent their answers using a graph? ● Where do you see graphs in the world? What did you learn from those graphs?

Key Concepts ● I can draw a picture graph. (2.DA.1) ● I can draw a bar graph. (2.DA.1) ● I can represent data sets that have up to four choices using bar graphs and picture graphs. (2.DA.1) ● I can solve simple addition, subtraction, and comparison problems using information shown on a graph. (2.DA.1)	**Related Concepts** ● **N/A**	**Assessment Vocabulary** ● Bar Graph ● Compare ● Data ● Picture Graph ● Scale

Mathematical Processes

- *PS.3 Construct convincing arguments and critique the reasoning of others.*
  - Understand and use stated assumptions, definitions, and previous results. I can verbally justify my conclusions.
  - Justify my reasoning for my solution making sense.

Resources

	Textbook	iDigital	Manipulatives
	Lesson 23 Draw and Use Bar Graphs and Picture Graphs 5days	IDOE Examples/Tasks 2.DA.1 iReady: Draw and Use Bar Graphs and Picture Graphs 2.DA.1 iReady/Line Plots 2.DA.1	Color Graph Bear Counters Graph Maker

Unit 6- **Subtraction within 100 (Culmination Addition/Subtraction within 100)**

General Description of the Unit	
Students will solve real-world problems involving subtraction within 100. They will use a variety of strategies such as taking from, taking apart, comparing, etc. with unknowns in all parts of the subtraction problem. In addition, students will use estimation to determine whether answers are reasonable in subtraction problems. Students will also practice flexibility with switching between addition and subtraction computation, and distinguishing between addition and subtraction word problems within 100.	
Priority Standards ● 2.CA.2: Solve real-world problems involving addition and **subtraction** within 100 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using drawings and equations with a symbol for the unknown number to represent the	**Supporting Standards** ● 2.CA.1: Add and **subtract** fluently within 100. ● 2.CA.3: Solve real-world problems involving addition and **subtraction** within 100 in situations involving lengths that are given in the same units (e.g., by using drawings, such as drawings of rulers, and equations

problem). Use estimation to decide whether answers are reasonable in addition problems.	with a symbol for the unknown number to represent the problem).
Proficiency Scales 2.CA.2	**Tiered Assessments**
Enduring Understandings ● In second grade, the smaller number is subtracted from the larger number using place-value understanding to subtract ones, and tens. ● Regrouping a ten is sometimes necessary to solve a subtraction problem. ● Addition and subtraction are related operations. When solving word problems, you have to make sense of the problem to determine if you must add or subtract to solve it.	**Essential Questions** ● Is 67 - 42 or 42 - 19 a more challenging problem? Why? What is similar about solving these problems? What is different? ● What is a reasonable estimate for 92-57. How do you know? ● What are examples of when you use subtraction in your life? Create a reasonable real-world subtraction problem for a two-digit minus two-digit number that would require regrouping. ● How are addition and subtraction word problems alike? How are they different? How do you figure out which operation to use to solve the word problem?

Key Concepts	Related Concepts	Assessment Vocabulary
● I can solve real-world problems involving addition within 100. (2.CA.2)	● I can add within 100. (2.CA.1) ● I can subtract within 100. (2.CA.1)	● Addend ● Difference ● Estimation

• I can solve real-world problems involving subtraction within 100. (2.CA.2) • I can use estimation to decide whether my sums are reasonable. (2.CA.2) • I can use drawings and equations with a symbol for the unknown number to represent the problem. (2.CA.2)	• I can solve real-world problems involving adding and subtracting lengths within 100 when given in the same units. (2.CA.3) • I can use drawings and equations with symbols representing the unknown number to solve real-world problems involving adding and subtracting lengths within 100. (2.CA.3)	• Number Pattern • Place Value • Regroup • Sum • Centimeter • Difference • Equation • Inch • Length • Millimeter • Ruler • Sum

Mathematical Processes

- *PS.1 Make sense of problems and persevere in solving them.*
  - Apply and adapt a variety of appropriate strategies to solve problems.
- *PS.8 Look for and express regularity in repeated reasoning.*
  - Apply previously used strategies to solve new problems.

Resources

Textbook	Digital	Manipulatives

	Lesson 6 Solve Two Step Word Problems 8 days **Lesson 8 Subtract Two-Digit Numbers** 5 days **Lesson 9 Solve One Step Word Problems with Two Digit Numbers** 5 days **Lesson 20 Compare lengths** 5 days **Lesson 21** 5 days **a) Add and Subtract Lengths**	IDOE Examples/Tasks 2.CA.1 IDOE Examples/Tasks 2.CA.2 IDOE Examples/Tasks 2.CA.3 iReady/Solve Subtraction Word Problems 2.CA.3 iReady/Using Addition to Check Subtraction 2.CA.2 iReady/Solve Comparison Subtraction Problems 2.CA.3 iReady/Solve 1-Step Addition and Subtraction Word Problems 2.CA.3	120-Board Number Lines Base Ten Blocks

Unit 7- **Subtraction within 1,000 (Culmination Addition/Subtraction within 1,000)**

General Description of the Unit	
Students will subtract within 1,000 using models or drawings and strategies based on place value. They will understand that in subtracting three-digit numbers, one subtracts hundreds and hundreds, tens and tens, and ones and ones, decomposing as necessary tens or hundreds. Students will also practice flexibility with switching between addition and subtraction computation, and distinguishing between addition and subtraction word problems within 1,000.	
Priority Standards	**Supporting Standards**

• 2.CA.4: Add and subtract within 1,000, using models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and that sometimes it is necessary to compose or decompose tens or hundreds.	• 2.CA.7: Create, extend, and give an appropriate rule for number patterns using addition and subtraction within 1,000.
Proficiency Scales **2.CA.4**	**Tiered Assessments**
Enduring Understandings • In second grade, the smaller number is subtracted from the larger number using place-value understanding to subtract ones, tens, and hundreds. • Regrouping a hundred or ten is sometimes necessary to solve a subtraction problem. • Addition and subtraction are related operations. When solving word problems, you have to make sense of the problem to determine if you must add or subtract to solve it.	**Essential Questions** • Is 678 - 423 or 421 - 198 a more challenging problem? Why? What is similar about solving these problems? What is different? • What is a reasonable estimate for 714 - 280? How do you know? • What are examples of when you use subtraction in your life? Create a reasonable real-world subtraction problem for a three-digit minus three-digit number. • How are addition and subtraction word problems alike? How are they different? How do you figure out which operation to use to solve the word problem?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can add and subtract within 1,000 using place value strategies. (2.CA.4) ● I can add and subtract within 1,000 using modeling strategies. (2.CA.4) ● I can add and subtract within 1,000 by drawing. (2.CA.4) ● I can describe and explain strategies used to add and subtract within 1,000. (2.CA.4) ● I can show that when adding or subtracting, I perform the given operation on digits in matching place values. (2.CA.4) ● I can use regrouping to add or subtract within 1,000. (2.CA.4)	● I can create number patterns for addition and subtraction within 1,000. (2.CA.7) ● I can extend number patterns for addition and subtraction within 1,000. (2.CA.7) ● I can state rules for number patterns using addition and subtraction within 1,000. (2.CA.7)	● Addend ● Difference ● Estimation ● Number Pattern ● Place Value ● Regroup ● Sum

Mathematical Processes

- *PS.1 Make sense of problems and persevere in solving them.*
    - Analyze and evaluate the mathematical thinking and strategies of others.

- *PS.4 Model with mathematics.*
  - Explain which quantities are important in a problem and use a variety of tools and representations to show their relationship.

Resources		
Textbook **Lesson 14** **a)Subtract Three-Digit Numbers** **b) Use Number Patterns to 1,000 with Addition and Subtractions**	**Digital** IDOE Examples/Tasks 2.CA.4 IDOE Examples/Tasks 2.CA.7 iReady/Add 3 Digit Numbers 2.CA.4 iReady/Add and Subtract 3 Digit Numbers 2.CA.4	**Manipulatives** 120-Board Number Lines Base Ten Blocks

Unit 8- **Time - Nearest Five Minutes**

General Description of the Unit

Students will tell and write time to the nearest five minutes from an analog clock, using a.m. and p.m. In addition, students will solve real-world problems involving addition and subtraction of time in intervals of half hour or hour.

Priority Standards	**Supporting Standards**
● 2.M.5: Tell and write time to the nearest five minutes from analog clocks, using a.m. and p.m. Solve real-world problems involving addition and subtraction of time intervals on the hour or half hour.	● 2.M.6: Describe relationships of time, including: seconds in a minute; minutes in an hour; hours in a day; days in a week; and days, weeks, and months in a year.
Proficiency Scales 2.M.5	**Tiered Assessments**
Enduring Understandings ● Time can be measured in multiple units such as minutes, seconds, or hours. ● By reading and writing time to the nearest five minutes on an analog clock, students can connect partitioning circles, and counting on by fives. ● Knowing when to use a.m. and when to use p.m. can provide context when estimating how much time has passed.	**Essential Questions** ● Time can be measured in multiple units such as minutes, seconds, or hours. ● By reading and writing time to the nearest five minutes on an analog clock, students can connect partitioning circles, and counting on by fives. ● Knowing when to use a.m. and when to use p.m. can provide context when estimating how much time has passed.

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can tell time to the nearest five minutes on an analog clock. (2.M.5)	● I can show how many seconds are in one minute. (2.M.6) ● I can show how many minutes are in an hour. (2.M.6)	● Analog Clock ● Day ● Elapsed Time ● Hour

• I can write time to the nearest five minutes on an analog clock. (2.M.5) • I can use a.m. and p.m. to write the time. (2.M.5) • I can solve real-world problems that involve adding and subtracting time on the hour or half hour. (2.M.5)	• I can show how many hours are in a day. (2.M.6) • I can show how many days are in a week. (2.M.6) • I can show how many weeks are in a month. (2.M.6) • I can show how many months are in a year. (2.M.6) • I can explain the relationship between different units of time. (2.M.6)	• Minute • Month • Second • Time Interval • Week • Year

Mathematical Processes

- *PS.4 Model with mathematics.*
  - Apply mathematics to solve problems in everyday life.
- *PS.6 Attend to precision.*
  - Communicate precisely to others.

Resources

Textbook	Digital	Manipulatives
Lesson 24 Tell and Write Time	IDOE Examples/Tasks 2.M.5 IDOE Examples/Tasks 2.M.6	Interactive Clock Two-Clocks

		iReady/Telling Time to the Nearest 5 Minutes 2.M.5	

Unit 9- **Money**

General Description of the Unit Students will identify the value of a collection of pennies, nickels, dimes, quarters, and dollars.	
Priority Standards ● 2.M.7: Find the value of a collection of pennies, nickels, dimes, quarters and dollars.	**Supporting Standards** ● N/A
Proficiency Scales **2.M.7**	**Tiered Assessments**
Enduring Understandings ● The United States uses currency that includes coins such as the penny, nickel, dime, and quarter as well as bills of different values.	**Essential Questions** ● How are pennies, nickels, dimes, and quarters alike? How are they different? ● Why is it important to be able to find the value of a collection of money?

● This money can be used to buy things. Other countries have different kinds of money. ● Coins look different and have different values. ● Patterns in counting by 10's, 5's, and 1's can be used to help count dollars, dimes, nickels, and pennies. It is easiest to count money by descending value.	● How do you find the value of a collection of money? ● Which coins are the most difficult for you to count? ● What strategies can you use when you encounter this money? ● Is 25 dollars a lot of money? Why or why not? What could you buy with 25 dollars? What would you not be able to buy with 25 dollars?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can find the value of a set of pennies, nickels, dimes, quarters, and dollars. (2.M.7)	● **N/A**	● Dime ● Dollar ● Nickel ● Penny ● Quarter ● Value

Mathematical Processes

- *PS.6 Attend to precision.*
  - Identify the appropriate mathematical language in another student's explanation of a problem.
  - List the steps necessary to solve a problem accurately.

Resources

	Textbook	Digital	Manipulatives
	Lesson 25 Solve Word Problems Involving Money	IDOE Examples/Tasks 2.M.7 iReady/Problem Solving: Money Amounts 2.M.7 iReady/Coin Combinations 2.M.7	Digital Coins- Heads and Tails Digital Coins

Unit 10- **Fractions**

General Description of the Unit	
Students will be able to partition circles and rectangles into two, three, or four equal parts. They will describe the shares using the words halves, thirds, half of, etc. In addition, students will describe the whole as having two halves, three thirds, etc. Students will recognize that equal parts of identical wholes do not have to have the same shape.	
Priority Standards ● 2.G.5: Partition circles and rectangles into two, three, or four equal parts; 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 parts of identical wholes need not have the same shape.	**Supporting Standards** ● N/A

Proficiency Scales **2.G.5**	**Tiered Assessments**
Enduring Understandings ● Shapes can be partitioned in many different ways to represent fractional amounts. ● The number of equal-sized pieces that are made through a partition represent a fractional amount such as halves, thirds, and fourths. ● Fractions can be written using a numerator and denominator. The denominator represents how many equal-sized pieces the shape is partitioned into, and the numerator represents how many equal-sized pieces are shaded.	**Essential Questions** ● How would you describe a fraction? How is it similar to a whole number? How is it different? ● When do you use fractions in your life at home or at school? ● How many ways can you partition a square into fourths? Why do all of your examples represent fourths? ● How do halves and fourths relate to time? How do halves and fourths relate to money?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can partition circles into two, three, and four equal parts. (2.G.5) ● I can partition rectangles into two, three, and four equal parts. (2.G.5) ● I can identify halves, thirds, and fourths. (2.G.5) ● I can describe partitions of circles and rectangles. (2.G.5) ● I can describe a whole as two halves, three thirds, and four fourths. (2.G.5)	● **N/A**	● Denominator ● Fraction ● Numerator ● Whole

● I can recognize that equal parts of identical wholes do not need to have the same shape. (2.G.5)		

Mathematical Processes

- *PS.7 Look for and make use of structure.*
  - Change perspective and see things as single objects or as composed of several objects.
- *PS.8 Look for and express regularity in repeated reasoning.*
  - Self-assess to see whether a strategy makes sense as I work.

Resources

Textbook	Digital	Manipulatives
Lesson 28 Understand Halves, Thirds, and Fourths in Shapes	IDOE Examples/Tasks 2.G.5 iReady/Make Equal Shares 2.G.5	Fraction Circles Circle and Rectangle Partitions

Unit 11- **Measurement**

General Description of the Unit Students will estimate and measure the length of an object. They will choose the appropriate tools of measurement, such as rulers, yardsticks, meter sticks, etc. to measure to the nearest inch, foot, year, centimeter and meter	
Priority Standards ● 2.M.2: Estimate and measure the length of an object by selecting and using appropriate tools, such as rulers, yardsticks, meter sticks, and measuring tapes to the nearest inch, foot, yard, centimeter and meter.	**Supporting Standards** ● 2.M.1: Describe the relationships among inch, foot, and yard. Describe the relationship between centimeter and meter. ● 2.M.3: Understand that the length of an object does not change regardless of the units used. 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.M.4: Estimate and measure volume (capacity) using cups and pints.
Proficiency Scales **2.M.2**	**Tiered Assessments**
Enduring Understandings	**Essential Questions**

• Estimating the length of an object can be useful in knowing what tool to use in order to find the exact length of that object. • The length of an object is identified in same-size units within a system. Therefore an object's length can be measured in different units or different systems, however its length never changes. • There are smaller and larger units of measure within systems. • Volume is a different form of measurement from length and area. • Pints and cups are units of measurement used to find volume. Pints and cups are related measurements, because two cups are equal to one pint. • Volume can be estimated and measured precisely, and different situations may require estimation or precise measurement.	• About how tall is your classroom chair? A stool at your house? Would you use the same tool to measure their height? Why or why not? • What examples can you give in which using centimeters would be better than using inches? • When would it be appropriate to use a ruler instead of a tape measure? When would it be appropriate to use a tape measure instead of a ruler? Explain why one would be more appropriate than the other? • How would you describe volume? How is it similar to measurements we have been exploring? How is it different? • When do you need to find the volume of something at home or at school? • When is it appropriate to estimate and when is it necessary to measure?

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
• I can estimate the length of an object to the nearest inch, foot, yard, centimeter and meter. (2.M.2) • I can measure to the nearest inch, foot, yard, centimeter, and meter. (2.M.2)	• I can understand that the length of an object does not change regardless of how its units of measurement. (2.M.3) • I can measure the length of an object twice using different units and describe how the two	• Centimeter • Estimate • Foot • Inch • Length • Meter • Metric System • Unit of Measurement

● I can use a ruler, yardstick, and meter stick to measure lengths. (2.M.2)	measurements relate to the size of the chosen unit. (2.M.3) ● I can estimate volume (capacity) in cups and pints. (2.M.4) ● I can measure volume in cups and pints. (2.M.4)	● U.S. Standard System ● Yard ● Cup ● Estimate ● Pint ● Volume

Mathematical Processes

- *PS.5 Use tools appropriately.*
  - Explain why a particular tool is more suitable than another.
- *PS.6 Attend to precision.*
  - Accurately determine the unit of measure of a given problem.

Resources

Textbook	Digital	Manipulatives
Lesson 16 Understand Length and Measurement Tools **Lesson 17 Measure Length** **Lesson 18 Understand Measurement with Different Units** **Lesson 19 Understand Estimating Length**	IDOE Examples/Tasks 2.M.2 IDOE Examples/Tasks 2.M.1 IDOE Examples/Tasks 2.M.3 IDOE Examples/Tasks 2.M.4 iReady/Measure in Inches and Centimeters 2.M.2	Ruler Game Decimal Line Measuring Cups (recommended)

	Lesson 21 **b)Measure with Cups and Pints** **Lesson 22 Understand Reading and Making Line Plots (optional)**	iReady/Measuring with Different Units 2.M.1 iReady/Measure in Feet and Meters 2.M.2	

Unit 12- **Beginning Multiplication**

General Description of the Unit Students will combine skills of counting on by ones, two, fives, in order to allow them to visually represent multiplication problems using arrays. They will write simple repeated equations to represent their arrays and also demonstrate how to partition rectangles into rows and columns of same-size units.	
Priority Standards ● 2.CA.5: 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 groups.	**Supporting Standards** ● 2.G.4: Partition a rectangle into rows and columns of same-size (unit) squares and count to find the total number of same-size squares.

Proficiency Scales **2.CA.5**	**Tiered Assessments**
Enduring Understandings ● Rectangles can be partitioned into rows and columns of smaller, equal-sized rectangles known as arrays. ● Arrays can be used to connect students to area, counting on, multiplication, and division. ● Even numbers can be broken apart into equal sized groups without any objects left over. ● Odd numbers can be broken apart into equal sized groups with one object left over. ● When a rectangle is partitioned into equal sized squares, each square represents a part of the whole rectangle.	**Essential Questions** ● Does changing the direction of the array change the number of squares or tiles which make up the array? How are they similar? How are they different? ● How can we use an array to show counting on by twos or fives? ● Can an array have an odd amount of squares or tiles? Why, or why not, explain.

Key Concepts	**Related Concepts**	**Assessment Vocabulary**
● I can add to find the total number of objects within a rectangular array up to 5 rows and 5 columns. (2.CA.5) ● I can write an equation to show the total as a sum of equal groups. (2.CA.5)	● I can partition a rectangle into squares of equal size. (2.G.4) ● After partitioning a rectangle into equal sized squares, I can count the number of same- size squares. (2.G.4)	● Array ● Count On ● Divide ● Even ● Fraction ● Odd ● Pairing ● Partition ● Remainder

		• Sum

Mathematical Processes

- *PS.7 Look for and make use of structure.*
  - Identify patterns or structure in situations.

- *PS.8 Look for and express regularity in repeated reasoning.*
  - Notice if calculations are repeated and use that information to solve problems.

Resources

Textbook	Digital	Manipulatives
Lesson 5 Add Using Arrays **Lesson 27 Understand Tiling in Rectangles**	IDOE Examples/Tasks 2.CA.5 IDOE Examples/Tasks 2.G.4 iReady/Adding Using Arrays 2.CA.5	Perimeter Area Arrays