



Grade 2 Mathematics
North Gibson School Corporation
SY 2022-2023

Grade 2 Mathematics

Units of Study

Unit 1:	Numbers within 20	🕒 27 days	1st quarter
Unit 2A:	Addition and Subtraction within 100	🕒 20 days	1st quarter
Unit 2B:	Number Sense within 1,000	🕒 18 days	2nd quarter
Unit 2C:	Addition and Subtraction within 1,000	🕒 25 days	2nd quarter
Unit 3A:	Measurement- Length	🕒 23 days	3rd quarter
Unit 3B:	Measurement - Time	🕒 15 days	3rd quarter
Unit 3C:	Measurement- Money	🕒 15 days	3rd -4th quarter
Unit 4A:	Geometry-Shapes	🕒 9 days	4th quarter
Unit 4B:	Geometry- Arrays	🕒 8 days	4th quarter
Unit 4C:	Geometry-Fractions	🕒 4 days	4th quarter
Unit 5:	Data	🕒 5 days	4th quarter

Appendices

Appendix A: [Proficiency Scale Template](#)

Appendix B: [Curriculum Refinement Form](#)

Appendix C: [K-12 Math Priority Standards Vertical Articulation](#)

Grade 2 Priority Standards

Priority Standards	2.CA.1	Add and subtract fluently within 100.
	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 problems.
	2.CA.4	Add and subtract within 1000, 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.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.
	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.
	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.
	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.
	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.
	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.7	Find the value of a collection of pennies, nickels, dimes, quarters and dollars.
	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.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, 200, 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).

Standards Breakdown

: Priority Standards

: Supporting Standards

		UNITS											
		1	2A	2B	2C	3A	3B	3C	4A	4B	4C	5	
STANDARDS	Number Sense	1			•			•	•				
		2			★								
		3			•								
		4						•					
		5	•										
		6			★								
		7			•								
STANDARDS	Computation and Algebraic Thinking	1	★	★			★						
		2	★	★									
		3					•						
		4				★							
		5								•			
		6					•						
		7					•						
STANDARDS	Geometry	1								★			
		2								•			
		3								•			
		4									★		
		5										★	
STANDARDS	Measurement	1					•						
		2					★						
		3					•						
		4					•						
		5						★					
		6						•					
		7							★				
STANDARDS	Data Analysis	1										★	

General Description of the Unit		
<p>In this unit students will begin the school year working with numbers within 20. Students will be introduced to even and odd numbers, review strategies for mental addition and subtraction within 20, and solve one and two step word problems involving addition and subtraction within 20. In first grade, students developed fluency for addition and subtraction within 20.</p>		
<p>Priority Standards</p> <ul style="list-style-type: none"> • 2.CA.1: Add and subtract fluently within 100. • 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 problems. 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • 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 2s). 	
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • Computational fluency refers to having efficiency, accuracy, and flexibility with computational strategies. • Addition involves adding to and putting together and is used in many real-world situations. • Subtraction is used in situations of taking from, taking apart, and comparing and is used in many real-world situations. 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How are addition and subtraction similar? How are they different? • 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? 	
<p>Key Concepts</p> <ul style="list-style-type: none"> • I can add within 20. (2.CA.1) • I can subtract within 20. (2.CA.1) • I can solve real-world problems involving addition within 20. (2.CA.2) • I can solve real-world problems involving subtraction within 20. (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) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • 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) 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Addend • Difference • Divide • Estimation • Even • Odd • Pairing • Remainder • Sum
<p>Mathematical Processes</p> <ul style="list-style-type: none"> • PS.1 Make sense of problems and persevere in solving them. • PS.6 Attend to precision. 		
Resources		
<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.CA.1 - template • 2.CA.2 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.CA.1 • IDOE Examples/Tasks 2.CA.2 • IDOE Examples/Tasks 2.NS.5 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Base Ten Blocks • Base Ten Blocks Version 2 • Interactive 120s Chart • Place-Value Cards • Place-Value Discs • Place-Value Mat

School Resources

Textbook

Textbook Name: Ready Math, Second Edition:
Note: Pacing is estimated to begin lesson 1 the first Monday of the school year.

Lesson 0: Lessons for the First Five Days (3 days)
Lesson 1: Even and Odd Numbers (5 days)
Lesson 2: Understand Mental Math Strategies (Fact Families) (4 days)
Lesson 3: Understand Mental Math Strategies (Make a Ten) (4 days)
Lesson 4: Solve One-Step Word Problems (5 days)
Lesson 5: Solve Two-Step Word Problems (5 days)

Formative Assessments

Lesson 1 Quiz
Lesson 2 Quiz
Lesson 3 Quiz
Lesson 4 Quiz
Lesson 5 Quiz

(Note: Lesson quizzes included in the last day of pacing for a Lesson)

Unit 1 Assessment

General Description of the Unit		
<p>In this unit students will build on their addition and subtraction understandings by extending from within 20 to within 100. Students will be composing and decomposing tens to add and subtract two-digit numbers. Students will be introduced to writing equations using a symbol for the unknown number. Students apply these skills to solve real world problems involving addition and subtraction within 100 in one step real world problems and use estimation to decide reasonableness of answers.</p>		
<p>Priority Standards</p> <ul style="list-style-type: none"> • 2.CA.1: Add and subtract fluently within 100. • 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 problems. 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • N/A 	
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • It is sometimes necessary to compose a ten when adding two numbers together. • It is sometimes necessary to decompose a ten when subtracting two numbers. • Estimation should be used to determine the reasonableness of a sum. 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How would you teach someone to add two numbers together? What would be important for them to know? • How would you teach someone to subtract two numbers? What would be important for them to know? • What is an example of a real-world problem in which you would have to add two two-digit numbers? • What is an example of a real-world problem in which you would have to subtract two two-digit numbers? 	
<p>Key Concepts</p> <ul style="list-style-type: none"> • I can add within 100. (2.CA.1) • I can subtract within 100. (2.CA.1) • I can solve real-world problems involving addition within 100. (2.CA.2) • 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) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • N/A 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Addend • Difference • Estimation • Sum
<p>Mathematical Processes</p> <ul style="list-style-type: none"> • PS.1 Make sense of problems and persevere in solving them. • PS.6 Attend to precision. 		
Resources		
<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.CA.1 - template • 2.CA.2 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.CA.1 • IDOE Examples/Tasks 2.CA.2 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Base Ten Blocks • Base Ten Blocks Version 2 • Interactive 120s Chart • Place-Value Cards • Place-Value Discs • Place-Value Mat

School Resources

Textbook

Lessons:

Lesson 6: Add Two-Digit Numbers (5 days)

Lesson 7: Subtract Two-Digit Numbers (5 days)

Lesson 8: Add and Subtract Two-Digit Numbers (5 days)

Lesson 9: Solve One-Step Word Problems with Two-Digit Numbers (5 days)

Formative Assessments

Lesson 6 Quiz

Lesson 7 Quiz

Lesson 8 Quiz

Lesson 9 Quiz

<p>General Description of the Unit In this unit students will expand their number sense understanding into the hundreds place by reading, writing, modeling and comparing three-digit numbers. Students will build on their understanding of standard and word form and be introduced to expanded form. In first grade, students were reading, writing, and comparing two-digit numbers.</p>		
<p>Priority Standards</p> <ul style="list-style-type: none"> • 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.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). 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • 2.NS.1: Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number. • 2.NS.3: Plot and compare whole numbers up to 1,000 on a number line. • 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. 	
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • Numbers can be represented in many different ways, including in standard form, expanded form, word form, and with models. • Three-digit numbers are created using groups of hundreds, tens, and ones and can be represented in multiple ways. • There are number patterns when counting by ones, twos, fives, tens, and hundreds. • Number lines can be used to represent and compare numbers. • Numbers can be compared using number sense understanding of hundreds, tens, and ones. Symbols like $<$, $>$, and $=$ are used to show comparisons of numbers. 	<p>Essential Questions</p> <ul style="list-style-type: none"> • What are all of the ways you can think of to represent the number 781? What is an example of something that 781 would be a small amount of? What is an example of something that 781 would be a large amount? What would it be impossible to have 781 of? What would it be likely to have 781 of? • What patterns do you notice when you count by hundreds? By tens? By fives? By twos? By ones? How can those patterns help you while counting? • How can you quickly compare the value of three numbers? What is the most important digit when comparing numbers; why? • What is an example of when you might need to compare numbers in your life? 	
<p>Key Concepts</p> <ul style="list-style-type: none"> • 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 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) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • 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 plot numbers to 1,000 on a number line. (2.NS.3) • I can use a number line to compare numbers up to 1,000. (2.NS.3) • I can use greater than, less than, and equal to signs to compare two, three digit numbers. (2.NS.7) • I can use place value understanding to compare two, three-digit numbers. (2.NS.7) 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Compare • Count on • Equal • Equivalent numbers • Expanded form • Greater than • Hundreds • Less than • Number line • Ones • Place value • Plot • Standard form • Tens • Word form

<ul style="list-style-type: none"> • 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) 		
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Mathematical Processes

- PS.7 Look for and make use of structure.
- PS.8 Look for and express regularity in repeated reasoning.

Resources

<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.NS.2 • 2.NS.6 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.NS.2 • IDOE Examples/Tasks 2.NS.6 • IDOE Examples/Tasks 2.NS.1 • IDOE Examples/Tasks 2.NS.3 • IDOE Examples/Tasks 2.NS.7 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Base Ten Blocks • Interactive 120s Chart • Number Line • Place-Value Cards • Place-Value Discs • Place-Value Mat
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School Resources

<p>Textbook</p> <p>Lessons:</p> <p>Lesson 10: Understand Three-Digit Numbers (4 days)</p> <p>Lesson 11: Read and Write Numbers (4 days)</p> <p>Lesson 12: Compare Numbers Using Place Value (5 days)</p> <p>Lesson 13: Plot and Compare Numbers (5 days)</p>	<p>Formative Assessments</p> <p>Lesson 10 Quiz</p> <p>Lesson 11 Quiz</p> <p>Lesson 12 Quiz</p> <p>Lesson 13 Quiz</p>
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General Description of the Unit In this unit students will build on their addition and subtraction understandings by extending from within 100 to within 1,000 using place value and modeling strategies. Students will add several two-digit numbers and will be composing and decomposing tens and hundreds to add and subtract three-digit numbers.		
Priority Standards <ul style="list-style-type: none"> ● 2.CA.4: Add and subtract within 1000, 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. 	Supporting Standards <ul style="list-style-type: none"> ● 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 1000. 	
Enduring Understandings <ul style="list-style-type: none"> ● When adding three-digit numbers, all of the hundreds, all of the tens, and all of the ones are combined within in their place-values. ● It is sometimes necessary to compose a hundred and/or a ten when adding two numbers together. ● When subtracting three-digit numbers, all of the hundreds are subtracted from hundreds, the tens are subtracted from tens, and the ones are subtracted from ones. ● It is sometimes necessary to decompose a hundred and/or a ten when subtracting numbers. ● Mathematical properties explain mathematical rules that are always true. The commutative property explains that two numbers can be added in any order without changing the sum and the associative property explains that three or more numbers can be added in any groups and the sum will not change. 	Essential Questions <ul style="list-style-type: none"> ● How is adding three-digit numbers like adding two-digit numbers? How is it different? ● How is subtracting three-digit numbers like subtracting two-digit numbers? How is it different? ● Does the order you add numbers in matter? Why or why not? 	
Key Concepts <ul style="list-style-type: none"> ● I can add and subtract within 1000 using place value strategies. (2.CA.4) ● I can add and subtract within 1000 using modeling strategies. (2.CA.4) ● I can add and subtract within 1000 by drawing. (2.CA.4) ● I can describe and explain strategies used to add and subtract within 1000. (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 1000. (2.CA.4) 	Related Concepts <ul style="list-style-type: none"> ● 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) ● 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) 	Vocabulary <ul style="list-style-type: none"> ● Associative Property ● Commutative Property ● Difference ● Number pattern ● Place value ● Regroup ● Sum
Mathematical Processes <ul style="list-style-type: none"> ● PS.4 Model with mathematics. ● PS.6 Attend to precision. 		

Resources

Proficiency Scales

- [2.CA.4](#)

Digital

- [IDOE Examples/Tasks 2.CA.4](#)
- [IDOE Examples/Tasks 2.CA.6](#)
- [IDOE Examples/Tasks 2.CA.7](#)

Manipulatives

- [Base Ten Blocks](#)
- [Base Ten Blocks Version 2](#)
- [Interactive 120s Chart](#)
- [Place-Value Cards](#)
- [Place-Value Discs](#)
- [Place-Value Mat](#)
- [Two Color Counters](#)

School Resources

Textbook

Lessons:

Lesson 14: Addition and Subtraction Number Patterns (5 days)

Lesson 15: Add Several Two-Digit Numbers (5 days)

Lesson 16: Add Three-Digit Numbers (5 days)

Lesson 17: Subtract Three-Digit Numbers (5 days)

Lesson 18: Add and Subtract Three-Digit Numbers (5 days)

Formative Assessments

Lesson 14 Quiz

Lesson 15 Quiz

Lesson 16 Quiz

Lesson 17 Quiz

Lesson 18 Quiz

Unit 2 Assessment

General Description of the Unit

In this unit students will use tools to measure length with the metric and standard systems and describe the relationships of units within systems. Students will solve real-world problems using addition and subtraction involving lengths. Students will also be introduced to volume (capacity) using cups and pints. In first grade, students were comparing and ordering objects using direct comparison and non-standard units of measurement.

Priority Standards

- **2.CA.1:** Add and subtract fluently within 100.
- **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.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.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.

Enduring Understandings

- There are different appropriate tools and units for measurement based on the situation. You must select which tool and unit is best.
- Units within a measurement system are related and can be converted between.
- Length is stagnant and does not change based on unit of measure.
- Volume represents the liquid capacity of a three-dimensional object.

Essential Questions

- How do you choose which tool is right to measure something? What are examples of different tools?
- How do you choose which unit is right to measure something? What are examples of different units?
- What are the steps you use to measure the length of something?
- How do you choose which unit is right to measure something? What are examples of different units?
- When might you need to find the volume of an object?

Key Concepts

- I can add within 100. (2.CA.1)
- I can subtract within 100. (2.CA.1)
- 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 use a ruler, yardstick, and meter stick to measure lengths. (2.M.2)

Related Concepts

- 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 a symbols representing the unknown number to solve real-world problems involving adding and subtracting lengths within 100. (2.CA.3)
- I can describe the relationship between inch, foot, and yard. (2.M.1)
- I can describe the relationship between centimeter and meter. (2.M.1)
- I can understand that the length of an object does not change no matter what unit it is measured in. (2.M.3)

Vocabulary

- Addend
- Centimeter
- Cup
- Difference
- Equation
- Estimate
- Foot
- Inch
- Length
- Meter
- Metric System
- Millimeter
- Pint
- Ruler
- Sum
- Unit of measurement
- US Standard System
- Volume
- Yard

- I can measure the length of an object twice using different units and describe how the two 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)

Mathematical Processes

- PS.2 Reason abstractly and quantitatively.
- PS.5 Use tools appropriately.

Resources

Proficiency Scales

- [2.CA.1 - template](#)
- [2.CA.3](#)
- [2.M.2](#)

Digital

- [IDOE Examples/Tasks 2.CA.1](#)
- [IDOE Examples/Tasks 2.M.2](#)
- [IDOE Examples/Tasks 2.CA.3](#)
- [IDOE Examples/Tasks 2.M.1](#)
- [IDOE Examples/Tasks 2.M.3](#)
- [IDOE Examples/Tasks 2.M.4](#)

Manipulatives

- [Base Ten Blocks](#)
- [Base Ten Blocks Version 2](#)
- [Interactive 120s Chart](#)
- [Online Ruler Practice](#)
- [Place-Value Cards](#)
- [Place-Value Discs](#)
- [Place-Value Mat](#)

School Resources

Textbook

Lesson 19: Understand Length and Measurement Tools
 Lesson 24: Measure with Cups and Pints
 (Combine Lesson 19 and 24- 5 days total)
 Lesson 20: Measure Length (5 days)
 Lesson 21: Understand Measurement with Different Units (4 days)
 Lesson 22: Understand Estimating Length (4 days)
 Lesson 23: Add and Subtract Lengths (5 days)

Formative Assessments

Lesson 19 & 24 Quiz
 Lesson 20 Quiz
 Lesson 21 Quiz
 Lesson 22 Quiz
 Lesson 23 Quiz

General Description of the Unit

In this unit students will tell and write time to the nearest 5 minutes and describe relationships of time. Students will solve real world problems involving intervals of time to the half hour. In first grade, students learned to tell and write time to the nearest half hour.

Priority 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.

Supporting Standards

- **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.
- **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.

Enduring Understandings

- When the minute hand points to one of the numbers on the clock, an interval of five minutes of time is shown. You can count by fives, starting at the 1, to determine the number of minutes after the hour.
- Elapsed time is used to find the amount of time between a start and end time or to find a start or end time when the start or end time and elapsed time is given.
- The abbreviations a.m. and p.m. are used to designate if a time occurs between midnight and noon or between noon and midnight.
- The hour hand moves as the minute hand moves, and it does not always point directly at the number for the hour.
- Time can be measured in multiple units, including years, months, weeks, days, hours, minutes, and seconds. These measurement units can be converted between.

Essential Questions

- When in your life do you need to find elapsed time? How do you find how much time has passed?
- What are examples of things you are doing when the time is a.m.? What are examples of things you are doing when the time is p.m.? Why are these abbreviations important?
- What patterns on a clock can you describe? How are they helpful in telling time? What do you know about the numbers and hands on a clock?
- Why are different measures of time important? What do you know about each unit of time?

Key Concepts

- I can tell time to the nearest five minutes on an analog clock. (2.M.5)
- 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)

Related Concepts

- 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)
- 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)
- I can count on by ones 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 match numbers with their ordinals in an ordered set with up to 30 items. (2.NS.4)

Vocabulary

- Analog clock
- Count on
- Day
- Hour
- Minute
- Month
- Ordinal
- Second
- Time interval
- Week
- Year

Mathematical Processes

- PS.5 Use tools appropriately.
- PS.6 Attend to precision.

Resources**Proficiency Scales**

- [2.M.5](#)

Digital

- [IDOE Examples/Tasks 2.M.5](#)
- [IDOE Examples/Tasks 2.M.6](#)
- [IDOE Examples/Tasks 2.NS.1](#)
- [IDOE Examples/Tasks 2.NS.4](#)

Manipulatives

- [Analog Clock](#)
- [Bear Counters](#)
- [Clock Version 2](#)
- [Interactive 120s Chart](#)
- [Two-Clocks](#)

School Resources**Textbook**

Notes: Supplement 2.M.5

Lesson 26: Tell Time

Formative Assessments

Lesson 26 Quiz

General Description of the Unit		
<p>In this unit students will learn the value of and count coins and dollars in a mixed collection using their knowledge of skip counting. In first grade, students found the value of pennies, nickels, and dimes in a collection.</p>		
<p>Priority Standards</p> <ul style="list-style-type: none"> • 2.M.7: Find the value of a collection of pennies, nickels, dimes, quarters and dollars. 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • 2.NS.1: Count by ones, twos, fives, tens, and hundreds up to at least 1,000 from any given number. 	
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • The United States uses money that includes coins such as the penny, nickel, dime, and quarter, as well as bills of different values. • 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 tens, fives, and ones can be used to help count dollars, dimes, nickels, and pennies. It is often easiest to count money by descending value. 	<p>Essential Questions</p> <ul style="list-style-type: none"> • 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? What is a big amount of money, why? What might you be able to buy with this amount? What is a small amount of money, why? What might you be able to buy with this amount? • Which coins are the most difficult for you to count? 	
<p>Key Concepts</p> <ul style="list-style-type: none"> • I can find the value of a set of pennies, nickels, dimes, quarters, and dollars. (2.M.7) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • 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) 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Count on • Value
<p>Mathematical Processes</p> <ul style="list-style-type: none"> • PS.6 Attend to precision. 		
Resources		
<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.M.7 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.M.7 • IDOE Examples/Tasks 2.NS.1 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Digital Coins Version 2 • Digital Coins- Heads and Tails • Interactive 120s Chart
School Resources		
<p>Textbook</p> <p>Notes:</p> <p>Focus on finding the value of a collection of pennies, nickels, dimes, quarters, and dollars.</p> <p>Supplement:</p> <p>Coin Recognition</p> <p>Find the value of pennies</p> <p>Find the value of nickels</p> <p>Find the value of dimes</p> <p>Find the value of quarter</p> <p>Find the value of mixed coins</p> <p>*Start introducing coins during calendar time</p> <p>Lesson 27: Find the Value of Money (15 days)</p>	<p>Formative Assessments</p> <p>Lesson 27 Quiz</p> <p>Unit 3 Assessment</p>	

<p>General Description of the Unit</p> <p>In this unit students will investigate two- and three-dimensional shapes and classify them by their defining attributes. Students will create, draw, compose and decompose shapes. In first grade, students learned to identify and classify shapes by attributes and relate two-dimensional shapes as faces of three-dimensional shapes.</p>		
<p>Priority Standards</p> <ul style="list-style-type: none"> • 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. 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • 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. 	
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • Two- and three-dimensional shapes can be classified, sorted, and drawn based on defining attributes such as the number of sides, vertices, and faces. 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How could you describe a cube (or other shape) to someone who couldn't see it? Can you use enough detail to get them to guess the shape you're describing? • Can you give steps to draw a rectangle? What are important details? How would these steps be different for a square? 	
<p>Key Concepts</p> <ul style="list-style-type: none"> • 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) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • 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) • I can predict the result of decomposing two and three dimensional shapes. (2.G.3) 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Compose • Cube • Decompose • Face • Investigate • Predict • Rectangle • Rectangular prism • Sides • Square • Three-dimensional • Triangle • Two-dimensional • Vertex
<p>Mathematical Processes</p> <ul style="list-style-type: none"> • PS.3 Construct convincing arguments and critique the reasoning of others. • PS.4 Model with mathematics. 		
<p>Resources</p>		
<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.G.1 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.G.1 • IDOE Examples/Tasks 2.G.2 • IDOE Examples/Tasks 2.G.3 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Digital Geoboards • Geogebra Geometry • Geometric Solids • Interactive Cone • Interactive Cylinder • Interactive Geometric Solids • Interactive Prisms • Interactive Spheres • Interactive Triangular/Rectangular Pyramids • Pattern Blocks • Printable 3-D Nets

School Resources

Textbook

Lessons:

Lesson 28: Recognize and Draw Shapes (4 days)

Lesson 29: Compose and Decompose Shapes (5 days)

Formative Assessments

Lesson 28 Quiz

Lesson 29 Quiz

General Description of the Unit			
<p>In this unit students will be introduced to arrays with up to 5 columns and 5 rows and represent these arrays with repeated addition equations.</p>			
<p>Priority Standards</p> <ul style="list-style-type: none"> • 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. 	<p>Supporting Standards</p> <ul style="list-style-type: none"> • 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. 		
<p>Enduring Understandings</p> <ul style="list-style-type: none"> • Using repeated addition equations to represent arrays can help to quickly find the sum instead of counting squares individually. • Rectangles can be partitioned into columns (vertical) and rows (horizontal). 	<p>Essential Questions</p> <ul style="list-style-type: none"> • How can you quickly find the number of blocks/objects arranged in an array? 		
<p>Key Concepts</p> <ul style="list-style-type: none"> • 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) 	<p>Related Concepts</p> <ul style="list-style-type: none"> • 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) 	<p>Vocabulary</p> <ul style="list-style-type: none"> • Array • Fraction • Partition • Sum 	
<p>Mathematical Processes</p> <ul style="list-style-type: none"> • PS.6 Attend to precision. • PS.7 Look for and make use of structure. 			
Resources			
<p>Proficiency Scales</p> <ul style="list-style-type: none"> • 2.CA.5 • 2.G.4- template 	<p>Digital</p> <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.G.4 • IDOE Examples/Tasks 2.CA.5 	<p>Manipulatives</p> <ul style="list-style-type: none"> • Color Blocks 	
School Resources			
<p>Textbook</p> <p>Lessons:</p> <p>Lesson 30: Add Using Arrays (4 days) Lesson 31: Understand Tiling in Rectangles (4 days)</p>		<p>Formative Assessments</p> <p>Lesson 30 Quiz Lesson 31 Quiz</p>	

General Description of the Unit		
In this unit students will partition circles and rectangles into two, three, and four equal parts and will use fraction vocabulary to describe halves, thirds, and fourths. In first grade, students learned to partition and describe the halves and fourths.		
Priority Standards <ul style="list-style-type: none"> 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	
Enduring Understandings <ul style="list-style-type: none"> 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. Two halves, three thirds, and four fourths are all equal to one whole. A shape can be partitioned in different ways and still represent the same fractional amount, even if the pieces do not look the same. 	Essential Questions <ul style="list-style-type: none"> When do you see shapes split into fractions at home or at school? If a pizza was cut into tenths, how many pieces would it have? How do you know? How many ways can you partition a square into fourths? How do you know all your examples represent fourths? How do halves and fourths relate to time and money? 	
Key Concepts <ul style="list-style-type: none"> 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) I can recognize that equal parts of identical wholes do not need to have the same shape. (2.G.5) 	Related Concepts N/A	Vocabulary <ul style="list-style-type: none"> Denominator Fraction Numerator Whole
Mathematical Processes <ul style="list-style-type: none"> PS.4 Model with mathematics. PS.6 Attend to precision. 		
Resources		
Proficiency Scales <ul style="list-style-type: none"> 2.G.5 	Digital <ul style="list-style-type: none"> IDOE Examples/Tasks 2.G.5 IDOE Examples/Tasks 2.G.3 	Manipulatives <ul style="list-style-type: none"> Circle and Rectangle Partitions Fraction Circles

School Resources

Textbook

Lessons:

Lesson 32: Understand Halves, Thirds, and Fourths in Shapes (4 days)

Formative Assessments

Lesson 32 Quiz

Unit 4 Assessment

General Description of the Unit In this unit students will draw single unit scale picture and bar graphs to represent data with up to four choices. Students will analyze the data to solve simple problems. In first grade, students learned to organize and interpret data with up to three choices and ask questions about the data.		
Priority Standards <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • N/A 	
Enduring Understandings <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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? • What are the important parts of a graph? Why are they important? 	
Key Concepts <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • N/A 	Vocabulary <ul style="list-style-type: none"> • Bar graph • Compare • Picture graph
Mathematical Processes <ul style="list-style-type: none"> • PS.3 Construct convincing arguments and critique the reasoning of others. • PS.6 Attend to precision. 		
Resources		
Proficiency Scales <ul style="list-style-type: none"> • 2.DA.1 	Digital <ul style="list-style-type: none"> • IDOE Examples/Tasks 2.DA.1 	Manipulatives <ul style="list-style-type: none"> • Color Bar Graphs • Color In Graph • Pictographs

School Resources

Textbook

Lesson 25: Bar Graphs and Picture Graphs (5 days)

Formative Assessments

Lesson 25 Quiz

Unit 5 Assessment