

Dual Immersion 2nd Grade
Utah Core State Standards
Mathematics Curriculum Map
Granite School District

*Striving toward greater focus and coherence through
Content Standards and Practice Standards*

Dee Rigdon
K-6 Mathematics Specialist
dprigdon@graniteschools.org



How to Read the Grade Level Content Standards

Standards define what students should understand and be able to do.

Strands are larger groups of related standards. Standards from different strands may sometimes be closely related.

Strand: MEASUREMENT AND DATA (2.MD)

Measure and estimate lengths in standard units (**Standards 2.MD.1–4**) and relate addition and subtraction to length (**Standards 2.MD.5–6**). Work with time and money (**Standards 2.MD.7–8**). Represent and interpret data (**Standards 2.MD.9–10**).

- **Standard 2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
- **Standard 2.MD.2** 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.
- **Standard 2.MD.3** Estimate lengths using units of inches, feet, centimeters, and meters.

Strand

Standard

Standards for Mathematical Practice

The Standards for Mathematical Practice in Second Grade describe mathematical habits of mind that teachers should seek to develop in their students. Students become mathematically proficient in engaging with mathematical content and concepts as they learn, experience, and apply these skills and attitudes (Standards 2.MP.1–8).

Standard 2.MP.1 Make sense of problems and persevere in solving them.

Explain the meaning of a problem, look for entry points to begin work on the problem, and plan and choose a solution pathway. When a solution pathway does not make sense, look for another pathway that does. Explain connections between various solution strategies and representations. Upon finding a solution, look back at the problem to determine whether the solution is reasonable and accurate, often checking answers to problems using a different method or approach.

Standard 2.MP.2 Reason abstractly and quantitatively.

Make sense of quantities and their relationships in problem situations. Contextualize quantities and operations by using images or stories. Decontextualize a given situation and represent it symbolically. Interpret symbols as having meaning, not just as directions to carry out a procedure. Know and flexibly use different properties of operations, numbers, and geometric objects.

Standard 2.MP.3 Construct viable arguments and critique the reasoning of others.

Use stated assumptions, definitions, and previously established results to construct arguments. Explain and justify the mathematical reasoning underlying a strategy, solution, or conjecture by using concrete referents such as objects, drawings, diagrams, and actions. Listen to or read the arguments of others, decide whether they make sense, ask useful questions to clarify or improve the arguments, and build on those arguments.

Standard 2.MP.4 Model with mathematics.

Identify the mathematical elements of a situation and create a mathematical model that shows the relationships among them. Identify important quantities in a contextual situation, use mathematical models to show the relationships of those quantities, analyze the relationships, and draw conclusions. Models may be verbal, contextual, visual, symbolic, or physical.

Standard 2.MP.5 Use appropriate tools strategically.

Consider the tools that are available when solving a mathematical problem, whether in a real-world or mathematical context. Choose tools that are relevant and useful to the problem at hand, such as drawings, diagrams, technologies, and physical objects and tools, as well as mathematical tools such as estimation or a particular strategy or algorithm.

Standard 2.MP.6 Attend to precision.

Communicate precisely to others by crafting careful explanations that communicate mathematical reasoning by referring specifically to each important mathematical element, describing the relationships among them, and connecting their words clearly to representations. Calculate accurately and efficiently, and use clear and concise notation to record work.

Standard 2.MP.7 Look for and make use of structure.

Recognize and apply the structures of mathematics such as patterns, place value, the properties of operations, or the flexibility of numbers. See complicated things as single objects or as being composed of several objects.

Standard 2.MP.8 Look for and express regularity in repeated reasoning.

Notice repetitions in mathematics when solving multiple related problems. Use observations and reasoning to find shortcuts or generalizations. Evaluate the reasonableness of intermediate results.

GSD Instructional Resources

- [Helping Students Master the Basic Facts](#)
- [How Can I Use the Problem of the Day as a Self-Start?](#)
- [How Can I Build Ongoing Math Review and Practice?](#)
- [How Can I Implement Tasks Using a Go Math Lesson?](#)
- [Mathematical Practice Standards 1-8](#)
- [Math Routines](#)
- [Problem Types](#)
- [Bar Model Drawing](#)
- [Writing in Math](#)
- [Depth of Knowledge \(DOK\)](#)
- [Math Homework](#)
- [Levels of Geometric Thinking](#)
- [Rubrics](#)

GSD Additional Instructional Resources Website

- [Navigating Go Math User Guide](#)
- [Proficiency Scales](#)
- [Math Investigation Centers](#)
- [Newsletters](#)

Additional Resources

[Utah Core State Standards for Mathematics K-5](#)

[Learning Progressions for CCSSM](#)

[Elementary Mathematics Core Guides](#)

[Math Vocabulary Cards](#)

[PBS Kids – Curious George](#)

General Website Resources

[Curriculum Maps Appendix](#)

2nd Grade Mathematics Curriculum Map

Granite School District Scope and Sequence Overview

Unit of Study	Go Math! Alignment	Go Math! Chapter Title	Strand and Standards
1	Chapter 1	Number Concepts	Strand: Operations and Algebraic Thinking Standard: 3 Strand: Number and Operations in Base Ten Standards: 2, 3
2	Chapter 2	Numbers to 1,000	Strand: Number and Operations in Base Ten Standards: 1, 1a, 1b, 3, 4, 8
3	Chapter 3	Basic Facts and Relationships	Strand: Operations and Algebraic Thinking Standards: 1, 2, 4
4	Chapter 4	2-Digit Addition	Strand: Operations and Algebraic Thinking Standard: 1 Domain: Number and Operations in Base Ten Standards: 5, 6, 9
5	Chapter 5	2-Digit Subtraction	Strand: Operations and Algebraic Thinking Standard: 1 Strand: Number and Operations in Base 10 Standards: 5, 9
6	Chapter 6	3-Digit Addition and Subtraction	Strand: Number and Operations in Base 10 Standard: 7
7	Chapter 7	Money and Time	Strand: Measurement and Data Standards: 7, 8
8	Chapter 8	Length in Customary Units	Strand: Measurement and Data Standards: 1, 2, 3, 5, 6, 9
9	Chapter 9	Length in Metric Units	Strand: Measurement and Data Standards: 1, 2, 3, 4, 5, 6
10	Chapter 10	Data	Strand: Measurement and Data Standard: 10
11	Chapter 11	Geometry	Strand: Geometry Standards: 1, 2, 3

2nd Grade

Instruction and Assessment Semester Schedule

2018-2019

It is expected that the units will be taught consecutively. The table below reflects which units and standards are assessed on each Granite Semester Benchmark Test. Semester Benchmark Tests are required by Granite School District. Additional assessment options are on each Unit of Study in the GSD maps.

Approx. Number of Days of Instruction	13	16	16	22	22	18	15	13	12	9	13	End of Year				
Number of Lessons	9	12	11	12	11	10	11	9	7	6	10	Getting Ready for Gr. 3 Unit				
Instructional Content	Unit of Study 1	Unit of Study 2	Unit of Study 3	Unit of Study 4	Unit of Study 5	Unit of Study 6	Unit of Study 7	Unit of Study 8	Unit of Study 9	Unit of Study 10	Unit of Study 11					
Math Standards	Semester 1 Pretest 8/20 – 2/8 (required)					Semester 1 Posttest 12/3 – 2/8 (required)					Semester 2 Pretest 12/3 – 3/1 (required)		Semester 2 Posttest 3/4 – 5/23 (required)			
						*2.OA.1 *2.NBT.4 2.OA.2 *2.NBT.5 2.OA.3 2.NBT.6 *2.OA.4 2.NBT.8 2.NBT.1 2.NBT.9 2.NBT.2 *2.NBT.3					*2.NBT.7 *2.MD.8 *2.MD.1 *2.MD.9 2.MD.2 *2.MD.10 *2.MD.3 *2.G.1 2.MD.4 2.G.2 2.MD.5 2.G.3 2.MD.6 *2.MD.7					

*Indicates emphasized standards.

Beginning and Ending of Semesters

1st Semester Aug 20, 2018 – Jan 10, 2019
 2nd Semester Jan 14, 2019 – May 23, 2019

2nd Grade

Instruction and Assessment Quarterly Schedule 2018-2019

It is expected that the units will be taught consecutively. The table below reflects which units and standards are assessed on each Granite Quarterly Benchmark (GQB). Quarterly Benchmark Tests are supplemental. Additional assessment options are on each Unit of Study in the GSD maps.

Approx. Number of Days of Instruction		13	16	16		22	22		18	15	13		12	9	13	End of Year
Number of Lessons		9	12	11		12	11		10	11	9		7	6	10	
Instructional Content		Unit of Study 1	Unit of Study 2	Unit of Study 3		Unit of Study 4	Unit of Study 5		Unit of Study 6	Unit of Study 7	Unit of Study 8		Unit of Study 9	Unit of Study 10	Unit of Study 11	Getting Ready for Gr. 3 Unit
Math Standards	GQB 1 8/20 (supplemental)	*2.OA.1 2.OA.2 2.OA.3 *2.OA.4 2.NBT.1 2.NBT.2 *2.NBT.3 *2.NBT.4 2.NBT.8			GQB 2 10/29 (supplemental)	*2.OA.1 *2.NBT.5 2.NBT.6 2.NBT.9		GQB 3 1/14 (supplemental)	*2.NBT.7 *2.MD.1 2.MD.2 *2.MD.3 2.MD.5 2.MD.6 *2.MD.7 *2.MD.8 *2.MD.9			GQB 4 3/1 (supplemental)	*2.MD.1 2.MD.2 *2.MD.3 2.MD.4 2.MD.5 2.MD.6 *2.MD.10 *2.G.1 2.G.2 2.G.3			

*Indicates emphasized standards.

Beginning and Ending of Quarters

1st Quarter Aug 20, 2018 – Oct 25, 2018
 2nd Quarter Oct 29, 2018 – Jan 10, 2019
 3rd Quarter Jan 14, 2019 – Mar 21, 2019
 4th Quarter Mar 27, 2019 – May 23, 2019

2nd Grade Mathematics Curriculum Map - Overview

[Lesson Plan Format:](#)

[Lesson Plan Format with Go Math! References](#)

[Lesson Plan Format for Tasks](#)

Unit of Study	The mathematical content is sequenced in Units of Study that will take approximately 2-3 weeks each to teach. The sequence of Units of Study provides a coherent flow to mathematics instruction throughout the year. It is expected that the units will be taught consecutively.
Go Math! Alignment	The primary textbook adopted in Granite School District for Grades K-6 is Houghton Mifflin Harcourt's Go Math!, 2015 Edition.
Math Content and Language Objectives	The Math Content Objectives and Language Objectives are to be posted for each lesson, restated to students during the lesson, and revisited at the end of each lesson. These are written as "I Can" statements. Suggested Math Language Objectives can be located on the next page.
Key Concepts for Differentiation 🔑	In an effort to assist teachers in the process of differentiation in Tier I teaching, key concepts have been identified in the curriculum maps as those specific objectives a teacher would focus on during small group instruction with struggling students. Key concepts cover minimum, basic skills and knowledge every student must master. Key concepts are NOT an alternative to teaching the entire Utah State Core Standards, rather they emphasize which concepts to prioritize for differentiation.
Vocabulary	Vocabulary cards for instruction and word walls can be found at: http://www.graniteschools.org/mathvocabulary/
Progression Documents	The Learning Progressions Documents are anchor documents to the Math Core Standards. These research-based documents describe the progression of each math core strand across various grade levels. They were written by the authors of the CCSSM to offer more in-depth explanation and details regarding the Math Core Standards. Click here to access these documents.
Additional Resources	The websites are a resource for lesson plans, teacher tutorials, content videos, student applets, and games. GSD Additional Teacher Resources are available to Granite School District teachers only. These resources are NOT intended to be all-inclusive. It is the teacher's responsibility to teach the Utah Core State Standards for Mathematics content, not the resources.
Assessment	There are many formative and summative assessment options: <ul style="list-style-type: none"> • Go Math! Options: Prerequisite Skills Inventory; Beginning-of-Year, Middle-of-Year, and End-of-Year Benchmark Tests; Show What You Know Diagnostic Assessments; Diagnostic Interview Assessments; Portfolio Assessment; Mid-Chapter Checkpoints; Chapter Review/Tests; Chapter Tests; Performance Assessments; Quick Checks; and, Personal Math Trainer. The assessments are intended to provide immediate feedback that can be used for Tier 2 and/or Tier 3 interventions for individual students. The results may also be used to identify concepts for reteaching the whole class if needed. • Semester Benchmark Assessments – These are cumulative tests for multiple Units of Study. These are to be given as a pretest and a posttest. Students not mastering content will need Tier 2 and/or Tier 3 interventions. • Exit slips, teacher observations, daily class work, homework, and basal assessments are to be used at the teacher's discretion to help guide and direct instruction.

Math Language Objectives



[Note: The following language objectives must be written in student-friendly terms, adapted to specific lessons, and aligned with the language needs of students.]

Reading Standards for Informational Text

- Ask and answer questions to demonstrate understanding of a math text.
- Describe the connection between concepts or steps in math procedures.
- Determine the meaning of specific math words or phrases in a math text.
- Use text features to locate key facts or information in a math text.
- Explain how images contribute to and clarify math text.
- Compare and contrast important points in a math text.
- Read and comprehend math texts.

Writing Standards

- Write opinion pieces on math topics, including reasons that support the opinion.
- Write explanatory math text using facts and definitions to develop points.
- Use digital tools to produce math writing and collaborate with others.

Speaking and Listening Standards

- Participate in collaborative conversations about math topics.
- Describe key ideas, details, or information presented orally or through other media.
- Ask and answer questions about information from a speaker.
- Add drawings or other visual displays to clarify math ideas.
- Produce complete sentences to provide detail or clarification on math topics.

Unit of Study 1	2 nd Grade	Quarter 1	Approx. 12 – 13 days	GSD Revised 9/1/18
-----------------	-----------------------	-----------	----------------------	--------------------

Strand: Operations and Algebraic Thinking 2.OA

Work with equal groups of objects to gain foundations for multiplication.
 3. Determine whether a group of objects (up to 20) has an odd or even number of members, (for example, by pairing objects or counting them by twos). Write an equation to express an even number as a sum of two equal addends.

Strand: Number and Operations in Base 10 2.NBT

Understand place value.
 2. Count within 1000; skip-count by fives, tens, and hundreds.
 3. Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.OA.3</u></p> <ul style="list-style-type: none"> • Tell whether a group has an even or odd number of objects. • Write an equation with equal addends to represent even numbers. <p><u>2.NBT.2</u></p> <ul style="list-style-type: none"> • Count within 1000 • Skip-count by 5's. • Skip-count by 10's. • Skip-count by 100's. <p><u>2.NBT.3</u></p> <ul style="list-style-type: none"> ☞ Read and write numbers to 1000 using base-ten numerals. • Read and write numbers to 1000 using number names. ☞ Read and write numbers to 1000 using expanded form. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • addend • base-ten numeral form • base-ten numerals • digit • equation • even number • expanded form • hundreds • number name • odd number • ones • pair • place value • skip count • standard form • sum • tens • thousand • thousands • word form 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 1 – Additional Resources
<u>Lesson 1.1</u> 2.OA.3	Lesson 2-1	Even and Odd Numbers Beacon Learning Center - Twins - Student Tutorial YouTube - 10 Odd Todd and Even Steven - Song
<u>Lesson 1.2</u> 2.OA.3	Lesson 2-2	K-5 Math Teaching Resources – Even Steven and Odd Todd - Game
<u>Lesson 1.3</u> 2.NBT.3	-----	Place Value UEN - “Go In and Out the Windows with Place Value” Lesson UEN - “Value That Number!” Lesson Education Place - Identify Place Value - Student Tutorial
<u>Lesson 1.4</u> 2.NBT.3	-----	Education Place - Identify Place Value to 1,000 - Student Tutorial Education Place - Ones, Tens, and Hundreds - Student Tutorial
<u>Lesson 1.5</u> 2.NBT.3	-----	Forms of Numbers (Base-Ten Numerals, Number Names, Expanded Form) – to 10’s Quia - Matching: Number Words - Game IXL - Names of Numbers: Writing Numbers Up to 100 in Words - Assessment
<u>Lesson 1.6</u> 2.NBT.3	-----	Skip Counting (1’s, 5’s, 10’s, 100’s) Education Place - Skip Counting - Student Tutorial
<u>Lesson 1.7</u> 2.NBT.3	-----	ICT Games - Counting Machine - Game Topmarks - Caterpillar Ordering - Interactive Applet Ambleside Primary - The Super Sequencer - Interactive Applet
<u>Lesson 1.8</u> 2.NBT.2	-----	NCTM – Grouping and Grazing Game – Count by 5’s
<u>Lesson 1.9</u> 2.NBT.2	Lesson 9-7	GSD Additional Teacher Resources Math Investigation Center – Unit 1 Odd or Even Game

Unit of Study 1 - Additional Resources - Continued

Literature

Cat Up A Tree by John and Ann Hassett
Count on Pablo by Barbara deRubertis
Even Steven, Odd Todd by Kathryn Cristaldi
How Many Seeds in a Pumpkin? by Margaret McNamara
If You Were an Even Number by Marcie Aboff
If You Were an Odd Number by Marcie Aboff
Leaping Lizards by Stuart J. Murphy
Missing Mittens by Stuart J. Murphy
Spunky Monkeys on Parade by Stuart J. Murphy
The 329th Friend by Marjorie Weinman Sharmat
Two Ways to Count to Ten by Ruby Dee
Underwater Counting Even Numbers by Jerry Pallotta
Zero, Zilch, Nada Counting to None by Wendy Ulmer

Assessment Options

- **Go Math! Assessment Options:** Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 1 Review/Test; Chapter 1 Test; Diagnostic Interview Assessment; Personal Math Trainer.
- **Daily/Weekly Formative Assessment Options:** Exit Slips, Observation, Daily Work, Homework.

Unit of Study 2	2 nd Grade	Quarter 1	Approx. 15 – 16 days	GSD Revised 9/1/18
-----------------	-----------------------	-----------	----------------------	--------------------

Strand: Number and Operations in Base Ten 2.NBT

Understand place value.

1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; for example, 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:
 - a. 100 can be thought of as a bundle of ten tens — called a “hundred.”
 - b. 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).
3. Read and write numbers to 1,000 using base-ten numerals, number names, and expanded form.
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.

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

8. Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p><u>2.NBT.1a</u></p> <ul style="list-style-type: none"> • Show 100 as ten tens. <p><u>2.NBT.1b</u></p> <ul style="list-style-type: none"> • Tell how many hundreds are in a number. • Tell how many hundreds, tens and ones are in a 3-digit number. <p><u>2.NBT.3</u></p> <ul style="list-style-type: none"> ☞ Read and write numbers to 1000 using base-ten numerals. • Read and write numbers to 1000 using number names. ☞ Read and write numbers to 1000 using expanded form. <p><u>2.NBT.4</u></p> <ul style="list-style-type: none"> • Compare two 3-digit numbers using place value. • Use the correct symbol when comparing two numbers. <p><u>2.NBT.8</u></p> <ul style="list-style-type: none"> • Mentally add 10 to a number. • Mentally add 100 to a number. • Mentally subtract 10 from a number. • Mentally subtract 100 from a number. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • base-ten numeral form • base-ten numerals • compare • difference • digit • equal • expanded form • fewer • greater than • hundreds • less than • more • more than • number • number name • numeral 	<ul style="list-style-type: none"> • one hundred • ones • pattern • place value • standard form • subtract • sum • tens • thousand • word form

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 2 – Additional Resources
<u>Lesson 2.1</u> 2.NBT.1a; 1b	Lesson 9-1	Forms of Numbers (Base-Ten Numerals, Number Names, Expanded Form) – to 100’s Education Place - Ones, Tens, and Hundreds - Student Tutorial Learn Alberta - Number Forms - Game
<u>Lesson 2.2</u> 2.NBT.1	-----	Place Value Education Place - Identify Place Value to 1,000 - Student Tutorial
<u>Lesson 2.3</u> 2.NBT.1	-----	Top Marks - Place Value Charts - Interactive Applet PBS Cyberchase - Countquick - Video Georgia Standards Frameworks - Unit 1 Lessons
<u>Lesson 2.4</u> 2.NBT.1	Lesson 9-2	Count On and Count Back Strategies YouTube - Teaching the Count-On Strategy for Addition Number Facts - Teacher Tutorial
<u>Lesson 2.5</u> 2.NBT.1	-----	YouTube - Counting On Counting Back - Teacher Tutorial Education Place - Count Back to Subtract - Assessment YouTube - Counting Back and Counting Up: A Mental Math Subtraction Strategy - Teacher Tutorial
<u>Lesson 2.6</u> 2.NBT.3	-----	Adding 10 or 100; Subtracting 10 or 100 Ambleside Primary - Numberlines - Interactive Applet
<u>Lesson 2.7</u> 2.NBT.3	Lessons 9-3, 9-4	ICT Games - Add 10 Sub Challenge - Game
<u>Lesson 2.8</u> 2.NBT.3	Lesson 9-5	Compare Numbers Learn Alberta - Comparing and Ordering Numbers - Game HMH School Publishers - E-Lab Comparing Numbers - Interactive Applet Education Place - Comparing Numbers - Student Tutorial
<u>Lesson 2.9</u> 2.NBT.8	Lesson 10-1	K-5 Math Teaching Resources – Make Six Numbers Activity K-5 Math Teaching Resources – Comparing 3-digit Numbers Activity
<u>Lesson 2.10</u> 2.NBT.8	Lesson 9-6	GSD Additional Teacher Resources Math Investigation Center – Unit 2 Number Line Theory
<u>Lesson 2.11</u> 2.NBT.4	Lesson 9-9	
<u>Lesson 2.12</u> 2.NBT.4	Lesson 9-8	

Unit of Study 2 - Additional Resources - Continued

Literature

Jack the Builder by Stuart J. Murphy

More or Less by Stuart J. Murphy

The 329th Friend by Marjorie Weinman Sharmat

Assessment Options

- **Go Math! Assessment Options:** Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 2 Review/Test; Chapter 2 Test; Diagnostic Interview Assessment; Performance Assessment Chapters 1-2; Personal Math Trainer.
- **Daily/Weekly Formative Assessment Options:** Exit Slips, Observation, Daily Work, Homework.

Unit of Study 3	2 nd Grade	Quarter 1	Approx. 14 – 16 days	GSD Revised 9/1/18
Strand: Operations and Algebraic Thinking				2.OA

Represent and solve problems involving addition and subtraction.

1. 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, for example, by using drawings and equations with a symbol for the unknown number to represent the problem.

Fluently add and subtract within 20.

2. Fluently add and subtract within 20.

- a. Add and subtract within 20 using mental strategies such as counting on; making ten (for example, $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (for example, $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (for example, knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (for example, adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).
- b. By end of Grade 2, know from memory all sums of two one-digit numbers.

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

4. 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.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p><u>2.OA.1</u></p> <ul style="list-style-type: none"> ☛ Use addition to solve word problems. ☛ Use subtraction to solve word problems. • Use drawings to solve word problems. • Use equations to solve word problems. • Use a symbol for an unknown number in an equation. <p><u>2.OA.2</u></p> <ul style="list-style-type: none"> • Fluently add within 20. • Fluently subtract within 20. • Memorize all sums of two one-digit numbers. <p><u>2.OA.4</u></p> <ul style="list-style-type: none"> ☛ Use addition to find the total amount in an array. ☛ Write an equation to show repeated addition. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • Additive Identity Property of 0 • array • Associative Property of Addition • bar model • Commutative Property of Addition • count back • count on • count up • difference • doubles • equal groups • equation • expression • fact family • making ten 	<ul style="list-style-type: none"> • related facts • repeated addition • row • subtract • sum

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 3 – Additional Resources
<u>Lesson 3.1</u> 2.OA.2	Lesson 1-2	<u>Addition Strategies (Count Up, Doubles, Doubles plus 1, Making Tens)</u> NLVM - Base Blocks Addition - Interactive Applet NLVM - Number Line Arithmetic - Interactive Applet
<u>Lesson 3.2</u> 2.OA.2	Lesson 1-1	ICT Games - Dinosaur Dentist - Game ICT Games - Special Space Jumps - Game
<u>Lesson 3.3</u> 2.OA.2	Lesson 1-3	ICT Games - The Adding 9 Fairy - Game Learn Zillion – Doubles – Student Tutorial Video
<u>Lesson 3.4</u> 2.OA.2	Lesson 4-5	<u>Subtraction Strategies (Count Up, Count Back, Break Apart Ones)</u> NLVM - Number Line Arithmetic - Interactive Applet Education Place - Use Addition to Subtract - Student Tutorial
<u>Lesson 3.5</u> 2.OA.2	Lessons 1-8, 1-9	<u>Word Problems (Addition and Subtraction)</u> Learn Zillion – Bar Models – Student Tutorial Video
<u>Lesson 3.6</u> 2.OA.2	-----	<u>Addition and Subtraction Fact Practice</u> Arcademic Skill Builders - AlienAddition - Game Arcademic Skill Builders - Minus Mission - Game
<u>Lesson 3.7</u> 2.OA.2	-----	Fun 4 The Brain - Addition - Games Learn Zillion – Closest to 20 Game
<u>Lesson 3.8</u> 2.OA.1	Lesson 2-5	Learn Zillion – Add within 20 using Ten Frames – Student Tutorial Video Learn Zillion – Subtract within 20 using Ten Frames – Student Tutorial Video K-5 Math Teaching Resources – 4 in a Row Game K-5 Math Teaching Resources – Magic Squares
<u>Lesson 3.9</u> 2.OA.1	-----	<u>Properties</u>
<u>Lesson 3.10</u> 2.OA.4	-----	<u>Use Symbol for the Unknown Number</u> HMH School Publishers - Busy Bees - Interactive Applet Ohio Department of Education - “Representing the Unknown” Lesson
<u>Lesson 3.11</u> 2.OA.4	Lessons 2-3, 2-4	<u>Related facts</u> Education Place - Relate Addition to Subtraction - Student Tutorial

Unit of Study 3 - Additional Resources - Continued

Repeated Addition (Equal Groups)

[ICT Games - Numberline Jump Maker - Model](#)

[Georgia Standards Frameworks – Unit 6 Lessons – See Pages 55, 71, 76](#)

[Learn Zillion – Repeated Addition – Student Tutorial Video](#)

GSD Additional Teacher Resources

[Math Investigation Center – Unit 3](#)

[Reasoning Strategies for Addition Within 20](#)

[Addition Tic Tac Toe Game](#)

[Salute Game](#)

[Number Cards](#)

[Bridging Tens – Addition Strategy](#)

[Close to 20 Game](#)

Literature

[Double the Ducks](#) by Stuart J. Murphy

[Jack the Builder](#) by Stuart J. Murphy

[Mall Mania](#) by Stuart J. Murphy

[Two of Everything](#) by L. T. Hong

Assessment Options

- **Go Math! Assessment Options:** Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 3 Review/Test; Chapter 3 Test; Diagnostic Interview Assessment; Personal Math Trainer.
- **Daily/Weekly Formative Assessment Options:** Exit Slips, Observation, Daily Work, Homework.

Unit of Study 4	2 nd Grade	Quarter 2	Approx. 15 – 22 days	GSD Revised 9/1/18
Strand: Operations and Algebraic Thinking				2.OA
Represent and solve problems involving addition and subtraction.				
1. 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, for example, by using drawings and equations with a symbol for the unknown number to represent the problem.				
Strand: Number and Operations in Base Ten				2.NBT
Use place value understanding and properties of operations to add and subtract.				
5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.				
6. Add up to four two-digit numbers using strategies based on place value and properties of operations.				
9. Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p><u>2.OA.1</u></p> <ul style="list-style-type: none"> ☞ Use addition to solve word problems. ☞ Use subtraction to solve word problems. • Use drawings to solve word problems. • Use equations to solve word problems. • Use a symbol for an unknown number in an equation. <p><u>2.NBT.5</u></p> <ul style="list-style-type: none"> ☞ Fluently add within 100. ☞ Fluently subtract within 100. <p><u>2.NBT.6</u></p> <ul style="list-style-type: none"> • Add up to four 2-digit numbers. <p><u>2.NBT.9</u></p> <ul style="list-style-type: none"> • Explain why an addition strategy works. • Explain why a subtraction strategy works. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • Associative Property of Addition • bar model • Commutative Property of Addition • compensation • digit • equation • expression • hundreds • one hundred • ones • place value • regroup • sum • tens 			

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 4 - Additional Resources
<u>Lesson 4.1</u> 2.NBT.6	Lesson 3-5	<u>Addition</u> Education Place - Add Three Numbers - Student Tutorial
<u>Lesson 4.2</u> 2.NBT.6	Lesson 3-6	ICT Games - Catapult Count On - Game Learn Alberta - Addition - Game
<u>Lesson 4.3</u> 2.NBT.6	Lesson 3-4	K-5 Math Teaching Resources – 2 Addition Split Activity K-5 Math Teaching Resources – Magic Squares Activity K-5 Math Teaching Resources – Add to: Result Unknown Problem Types
<u>Lesson 4.4</u> 2.NBT.6; & 9	-----	Learn Zillion – Add Within 100 Using Base Ten Blocks – Student Tutorial Video Thinking Blocks Jr. – Bar Models
<u>Lesson 4.5</u> 2.NBT.6	-----	<u>Properties</u> Ohio Department of Education - “Commutative Property” Lesson
<u>Lesson 4.6</u> 2.NBT.5	Lessons 3-1, 3-2, 3-3	<u>GSD Additional Teacher Resources</u> Math Investigation Center – Units 4, 5, 6
<u>Lesson 4.7</u> 2.NBT.5	Lessons 4-1, 4-2	Close to 100 Game Addition Strategies Foldable
<u>Lesson 4.8</u> 2.NBT.5	Lesson 4-4	100 or Bust Game “Magic” Game (Making Tens)
<u>Lesson 4.9</u> 2.OA.1	Lessons 4-3, 4-8	Close to 20 Game Cross Out Singles Game
<u>Lesson 4.10</u> 2.OA.1	-----	<u>Literature</u> A Collection for Kate by Barbara deRubertis A Fair Bear Share by Stuart J. Murphy
<u>Lesson 4.11</u> 2.NBT.6	Lesson 4-5	Lights Out! by Lucille Recht Penner M & M’s Addition Book by Barbara Barbieri McGrath
<u>Lesson 4.12</u> 2.NBT.6	Lesson 4-5	The Mission of Addition by Brian P. Cleary
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 4 Review/Test; Chapter 4 Test; Diagnostic Interview Assessment; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 5	2nd Grade	Quarter 2	Approx. 14 – 22 days	GSD Revised 9/1/18
------------------------	-----------------------------	------------------	-----------------------------	---------------------------

Strand: Operations and Algebraic Thinking **2.OA**

Represent and solve problems involving addition and subtraction.
 1. 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, for example, by using drawings and equations with a symbol for the unknown number to represent the problem.

Strand: Number and Operations in Base Ten **2.NBT**

Use place value understanding and properties of operations to add and subtract.
 5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
 9. Explain why addition and subtraction strategies work, using place value and the properties of operations. Explanations may be supported by drawings or objects.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.OA.1</u></p> <ul style="list-style-type: none"> ☞ Use addition to solve word problems. ☞ Use subtraction to solve word problems. • Use drawings to solve word problems. • Use equations to solve word problems. • Use a symbol for an unknown number in an equation. <p><u>2.NBT.5</u></p> <ul style="list-style-type: none"> ☞ Fluently add within 100. ☞ Fluently subtract within 100. <p><u>2.NBT.9</u></p> <ul style="list-style-type: none"> • Explain why an addition strategy works. • Explain why a subtraction strategy works. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • bar model • difference • digit • equation • expression • ones • place value • regroup • subtract • sum • tens 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 5 - Additional Resources
<u>Lesson 5.1</u> 2.NBT.5	Lesson 5-5	<p><u>Subtraction Strategies (Count Up, Count Back, Break Apart Ones)</u> Education Place - Subtract Two-Digit Numbers - Student Tutorial - NLVM - Base Blocks Subtraction - Interactive Applet Learn Alberta - Subtraction - Game YouTube - Mental Subtraction - Counting Back - Teacher Tutorial ICT Games - Numberline Mummy - Game Georgia Standards Frameworks – Unit 2 Lessons Thinking Blocks Jr. – Bar Models</p> <p><u>Word Problems (Addition and Subtraction)</u> Thinking Blocks - Addition and Subtraction Word Problems - Bar Model Beacon Learning Center - My Backpack - Interactive Applet Math Playground - Grand Slam Math - Interactive Applet Ohio Department of Education - “Using Compensatory Numbers to Subtract” Lesson K-5 Math Teaching Resources – Take From: Result Unknown Problem Types</p> <p><u>GSD Additional Teacher Resources</u> Math Investigation Center – Units 4, 5, 6 Subtraction Strategies – No Regrouping Subtraction Strategies - Foldable Close to 0 Game Subtraction Top It Game Balancing Subtraction – A Mental Math Strategy</p> <p><u>Literature</u> The Action of Subtraction by Brian P. Cleary Panda Math by Ann Whitehead Nagda Shark Swimathon by Stuart J. Murphy</p>
<u>Lesson 5.2</u> 2.NBT.5	-----	
<u>Lesson 5.3</u> 2.NBT.9; 2.NBT.5	Lessons 5-6, 6-5	
<u>Lesson 5.4</u> 2.NBT.5	Lesson 6-4	
<u>Lesson 5.5</u> 2.NBT.5	Lesson 6-1	
<u>Lesson 5.6</u> 2.NBT.5	-----	
<u>Lesson 5.7</u> 2.NBT.5	Lesson 6-5	
<u>Lesson 5.8</u> 2.NBT.5	Lesson 5-4	
<u>Lesson 5.9</u> 2.OA.1	Lessons 6-2, 6-3, 7-1	
<u>Lesson 5.10</u> 2.OA.1	-----	
<u>Lesson 5.11</u> 2.OA.1	Lessons 3-8, 4-7, 5-8, 6-8, 7-4, 7-5	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 5 Review/Test; Chapter 5 Test; Diagnostic Interview Assessment; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 6	2 nd Grade	Quarter 3	Approx. 13 – 18 days	GSD Revised 9/1/18
-----------------	-----------------------	-----------	----------------------	--------------------

Strand: Number and Operations in Base Ten 2.NBT

Use place value understanding and properties of operations to add and subtract.
 7. Add and subtract within 1,000, 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 that it is sometimes necessary to compose or decompose tens or hundreds.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.NBT.7</u></p> <ul style="list-style-type: none"> ☛ Add within 1000. ☛ Subtract within 1000. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • compose • decompose • difference • expanded form • hundreds • ones • regroup • subtract • sum • tens 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 6 - Additional Resources
<u>Lesson 6.1</u> 2.NBT.7	Lesson 10-5	<u>Addition of 3-Digit Numbers</u> Education Place - Regroup Ones - Student Tutorial Learn Alberta - Addition - Game
<u>Lesson 6.2</u> 2.NBT.7	Lesson 10-3	Georgia Standards Frameworks – Unit 2 Lessons K-5 Math Teaching Resources – 3-digit Addition Split
<u>Lesson 6.3</u> 2.NBT.7	-----	<u>Subtraction of 3-Digit Numbers</u> Learn Alberta - Subtraction - Game Education Place - Check Subtraction - Student Tutorial
<u>Lesson 6.4</u> 2.NBT.7	-----	Georgia Standards Frameworks – Unit 2 Lessons Teaching Channel – Three-Act Tasks: Modeling Subtraction Learn Zillion – Three-digit Subtraction with Regrouping
<u>Lesson 6.5</u> 2.NBT.7	-----	K-5 Math Teaching Resources – Take From
<u>Lesson 6.6</u> 2.NBT.7	Lesson 11-6	<u>GSD Additional Teacher Resources</u> Math Investigation Center – Units 4, 5, 6 Close to 0 Game
<u>Lesson 6.7</u> 2.NBT.7	-----	Subtraction Top It Game Balancing Subtraction – A Mental Math Strategy
<u>Lesson 6.8</u> 2.NBT.7	-----	Subtraction Strategies Subtraction Foldable Close to 200 Game Close to 1,000 Game
<u>Lesson 6.9</u> 2.NBT.7	-----	<u>Literature</u>
<u>Lesson 6.10</u> 2.NBT.7	-----	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 6 Review/Test; Chapter 6 Test; Diagnostic Interview Assessment; Performance Assessment Chapters 3-6; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Strand: Measurement and Data	2.MD
------------------------------	------

Work with time and money.
 7. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
 8. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. *For example: If you have 2 dimes and 3 pennies, how many cents do you have?*

Strand: GSD

1. Identify the number of hours in a day.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.MD.7</u></p> <ul style="list-style-type: none"> ☛ Tell and write time from an analog clock to the nearest 5 minutes. ☛ Tell and write time from a digital clock to the nearest 5 minutes. • Tell and write time using a.m. and p.m. <p><u>2.MD.8</u></p> <ul style="list-style-type: none"> ☛ Solve word problems involving money. <p><u>GSD</u></p> <ul style="list-style-type: none"> • Tell the number of hours in a day. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • a.m. • analog clock • cent • decimal point • digital clock • dime • dollar • half hour • half past • hour • hour hand • midnight • minute • minute hand • money • nickel • noon • p.m. • penny • quarter • quarter hour • quarter past • time 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 7 – Additional Resources
<u>Lesson 7.1</u> 2.MD.8	-----	Money Education Place - Equal Amounts - Student Tutorial GPBKids - Count On It - Interactive Applet
<u>Lesson 7.2</u> 2.MD.8	-----	Education Place - Use the Fewest Coins - Student Tutorial Education Place - Value of Coins - Student Tutorial Education Place - eManipulatives Money
<u>Lesson 7.3</u> 2.MD.8	Lessons 8-1, 8-2	ABCya - Counting Money - Interactive Applet HMH School Publishers - Counting Money - Interactive Applet Sheppard Software - Matching Math Coins - Interactive Applet
<u>Lesson 7.4</u> 2.MD.8	-----	Education Place - Identify and Compare Coins - Student Tutorial Education Place - Use the Fewest Coins - Student Tutorial Ohio Department of Education - "Counting Money and Making Change" Lesson
<u>Lesson 7.5</u> 2.MD.8	-----	HMH School Publishers - Let's Compare - Interactive Applet ABCya - Learning Coins - Student Tutorial United States Mint - Money - Lesson and Activities
<u>Lesson 7.6</u> 2.MD.8	-----	Little Giraffes - Money - Songs and Activities UEN - "A Bag Full of Money" Lesson Math Wire – I Have, Who Has? Coins - Game
<u>Lesson 7.7</u> 2.MD.8	Lesson 8-5	Learn Zillion – Coin Race – Practice Combining Coins
<u>Lesson 7.8</u> 2.MD.7	-----	Time PBS Kids - Curious George - Curious Clock Printable Education Place - Time to Five Minutes - Student Tutorial HMH School Publishers - Telling Time - Interactive Applet
<u>Lesson 7.9</u> 2.MD.7	Lesson 8-6	Ambleside Primary - Screenlock - Model ICT Games - Hickory Dickory Clock - Game Learn Zillion – Tell Time to the Nearest Five Minutes by Skip Counting
<u>Lesson 7.10</u> 2.MD.7	Lesson 8-7	
<u>Lesson 7.11</u> 2.MD.7	Lesson 8-8	

Unit of Study 7 - Additional Resources - Continued

GSD Additional Teacher Resources

[Math Investigation Center – Unit 7](#)

[The Money Game](#)

[Pocket Change - Game](#)

[Time Check - Game](#)

[Learn Zillion Links - Chapter 7](#)

Literature

[Alexander, Who Used to Be Rich Last Sunday](#) by Judith Viorst

[Arthur's Funny Money](#) by Lillian Hoban

[Benny's Pennies](#) by Pat Brisson

[The Coin Counting Book](#) by Rozanne Lanczak Williams

[A Day](#) by Robin Nelson

[Deena's Lucky Penny](#) by Barbara deRubertis

[A Dollar for Penny](#) by Julie Glass

[How the Second Grade Got \\$8,205.50 to Visit the Statue of Liberty](#) by Nathan Zimelman

[Game Time](#) by Stuart J. Murphy

[The Go-Around Dollar](#) by Barbara Johnston Adams

[It's About Time, Max!](#) by Kitty Richards

[Lilly's Purple Plastic Purse](#) by Kevin Henkes

[Nine O' Clock Lullaby](#) by Marilyn Singer

[Once Upon a Dime](#) by Nancy Kelly Allen

[The Penny Pot](#) by Stuart J. Murphy

[Pigs Will Be Pigs](#) by Amy Axelrod

[A Quarter from the Tooth Fairy](#) by Caren Holtzman

[Sluggers' Car Wash](#) by Stuart J. Murphy

Assessment Options

- **Go Math! Assessment Options:** Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 7 Review/Test; Chapter 7 Test; Diagnostic Interview Assessment; Personal Math Trainer.
- **Daily/Weekly Formative Assessment Options:** Exit Slips, Observation, Daily Work, Homework.

Unit of Study 8	2 nd Grade	Quarter 3	Approx. 12 – 13 days	GSD Revised 9/1/18
-----------------	-----------------------	-----------	----------------------	--------------------

Strand: Measurement and Data 2.MD

Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2. Measure the length of an object twice, using lengths of the two measurements; units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
3. Estimate lengths using units of inches, feet, centimeters, and meters.

Relate addition and subtraction to length.

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

Represent and interpret data.

9. 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.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p><u>2.MD.1</u> ☞ Measure the length of an object using the correct tool.</p> <p><u>2.MD.2</u></p> <ul style="list-style-type: none"> • Measure the length of an object using two different units. • Tell how the measurements relate to the size of the unit. <p><u>2.MD.3</u></p> <ul style="list-style-type: none"> • Estimate lengths of objects. <p><u>2.MD.5</u></p> <ul style="list-style-type: none"> • Solve addition and subtraction problems involving length. <p><u>2.MD.6</u></p> <ul style="list-style-type: none"> • Use a number line to add and subtract lengths. <p><u>2.MD.9</u> ☞ Measure objects and record the data on a line plot.</p> <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • compare • customary system • data • difference • estimate • foot • inch • length • line • line plot • measuring tape • number line • ruler 	<ul style="list-style-type: none"> • subtract • sum • unit • whole numbers • yardstick

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 8 - Additional Resources
<u>Lesson 8.1</u> 2.MD.1	Lesson 12-2	Measurement in Inches and Feet Education Place - Inches and Feet - Student Tutorial HMH School Publishers - E-Lab Estimating Customary Length - Interactive Applet
<u>Lesson 8.2</u> 2.MD.1	Lesson 12-2	K-5 Math Teaching Resources – Measuring Paths K-5 Math Teaching Resources – Length Word Problems Georgia Standards Frameworks – Unit 3 Lessons
<u>Lesson 8.3</u> 2.MD.3	-----	K-5 Math Teaching Resources – Measurement Line Plot
<u>Lesson 8.4</u> 2.MD.1	-----	GSD Additional Teacher Resources Math Investigation Center – Units 8, 9, 10 Learn Zillion Links – Chapter 8
<u>Lesson 8.5</u> 2.MD.5; 2.MD.6	Lesson 13-1	Literature How Big is a Foot? by Rolf Myller If You Were an Inch or a Centimeter by Marcie Aboff Inch by Inch by Leo Lionni
<u>Lesson 8.6</u> 2.MD.2	Lesson 12-3	Twelve Snails to One Lizard by Susan Hightower
<u>Lesson 8.7</u> 2.MD.3	-----	
<u>Lesson 8.8</u> 2.MD.1	Lesson 13-5	
<u>Lesson 8.9</u> 2.MD.9	-----	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 8 Review/Test; Chapter 8 Test; Diagnostic Interview Assessment; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 9	2 nd Grade	Quarter 4	Approx. 10 – 12 days	GSD Revised 9/1/18
Strand: Measurement and Data				2.MD

Measure and estimate lengths in standard units.

1. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2. Measure the length of an object twice, using lengths of the two measurements; units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.
3. Estimate lengths using units of inches, feet, centimeters, and meters.
4. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. *For example, after measuring a pencil and a crayon, a student uses the measurements to determine that the pencil is two inches longer than the crayon.*

Relate addition and subtraction to length.

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

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.MD.1</u> ↳ Measure the length of an object using the correct tool.</p> <p><u>2.MD.2</u></p> <ul style="list-style-type: none"> • Measure the length of an object using two different units. • Tell how the measurements relate to the size of the unit. <p><u>2.MD.3</u> ↳ Estimate lengths of objects.</p> <p><u>2.MD.4</u></p> <ul style="list-style-type: none"> • Measure and compare the lengths of two objects. <p><u>2.MD.5</u></p> <ul style="list-style-type: none"> • Solve addition and subtraction problems involving length. <p><u>2.MD.6</u></p> <ul style="list-style-type: none"> • Use a number line to add and subtract lengths. <p>↳ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • centimeter • compare • difference • estimate • length • meter • meter stick • metric system • number line • ruler • subtract • sum • unit 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 9 - Additional Resources
<u>Lesson 9.1</u> 2.MD.1	Lesson 12-5	<p><u>Measurement in Centimeters and Meters</u> HMH School Publishers - Length Strength: Centimeters - Interactive Applet Learn Zillion – Compare a measurement in inches to one in centimeters</p>
<u>Lesson 9.2</u> 2.MD.3	Lesson 12-5	<p>K-5 Math Teaching Resources - Length Word Problems K-5 Math Teaching Resources – Measure it Twice K-5 Math Teaching Resources – Measurement Line Plot</p>
<u>Lesson 9.3</u> 2.MD.1	-----	<p>K-5 Math Teaching Resources – Measuring Paths</p>
<u>Lesson 9.4</u> 2.MD.6; 2.MD.5	Lesson 13-1	<p><u>GSD Additional Teacher Resources</u> Math Investigation Center – Units 8, 9, 10 Standing Long Jump</p>
<u>Lesson 9.5</u> 2.MD.2	Lesson 12-6	<p><u>Literature</u> If You Were an Inch or a Centimeter by Marcie Aboff Millions to Measure by David Schwartz</p>
<u>Lesson 9.6</u> 2.MD.3	Lesson 12-7	
<u>Lesson 9.7</u> 2.MD.4	Lesson 12-8	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 9 Review/Test; Chapter 9 Test; Diagnostic Interview Assessment; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 10	2 nd Grade	Quarter 4	Approx. 9 days	GSD Revised 9/1/18
------------------	-----------------------	-----------	----------------	--------------------

Strand: Measurement and Data 2.MD

Represent and interpret data.
 10. 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 comparison problems using information presented in a bar graph.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>2.MD.10</u></p> <ul style="list-style-type: none"> ☛ Draw a picture graph. ☛ Draw a bar graph. ☛ Answer questions using information on a graph. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • bar graph • category • data • horizontal bar graph • key • picture graph • survey • tally chart • tally mark • vertical bar graph 	

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 10 - Additional Resources
<u>Lesson 10.1</u> 2.MD.10	-----	<p><u>Picture Graph (Single-Unit Scale)</u> Education Place - Read a Pictograph - Student Tutorial Learn Zillion – Compare Picture Graphs and Bar Graphs Learn Zillion – Create Picture Graphs</p>
<u>Lesson 10.2</u> 2.MD.10	Lesson 14-4	<p><u>Bar Graph (Single-Unit Scale)</u> HMH School Publishers - Counting Objects - Interactive Applet K-5 Math Teaching Resources – Button Bar Graph Georgia Standards Frameworks – Teeth Graph (Page 55) Georgia Standards Frameworks – Kangaroo Jumps (Page 54) Mathwire – Pet Survey Learn Zillion – Compare Picture Graphs and Bar Graphs Learn Zillion – Create a Bar Graph</p>
<u>Lesson 10.3</u> 2.MD.10	Lesson 14-4	<p><u>GSD Additional Teacher Resources</u> Math Investigation Center – Units 8, 9, 10 Standing Long Jump</p>
<u>Lesson 10.4</u> 2.MD.10	Lesson 14-3	<p><u>Literature</u> Graphs by Bonnie Bader Who’s Got Spots? by Linda W. Aber</p>
<u>Lesson 10.5</u> 2.MD.10	-----	
<u>Lesson 10.6</u> 2.MD.10	Lesson 14-5	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 10 Review/Test; Chapter 10 Test; Diagnostic Interview Assessment; Performance Assessment Chapters 7-10; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 11	2 nd Grade	Quarter 4	Approx. 13 days	GSD Revised 9/1/18
------------------	-----------------------	-----------	-----------------	--------------------

Strand: Geometry **2.G**

Reason with shapes and their attributes.

1. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Sizes are compared directly or visually, not compared by measuring. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2. Partition a rectangle into rows and columns of same-size squares and count to find the total number of squares.
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.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p><u>2.G.1</u></p> <ul style="list-style-type: none"> ☛ Recognize attributes of shapes. • Draw shapes with specific attributes. ☛ Identify shapes. <p><u>2.G.2</u></p> <ul style="list-style-type: none"> • Partition a rectangle into same-size squares and count them. <p><u>2.G.3</u></p> <ul style="list-style-type: none"> • Partition a circle into equal shares. • Partition a rectangle into equal shares. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • angle • attribute • circle • closed shape • column • cone • cube • cylinder • edge • equal parts • face • fourth of • fourths • half of • halves • hexagon • partition • pentagon • quadrilateral • quarter of • rectangle • rectangular prism • rhombus • row 	<ul style="list-style-type: none"> • side • solid shape • sort • sphere • square • third of • thirds • three-dimensional shape • trapezoid • triangle • two-dimensional shape • vertex (plural - vertices) • whole

Go Math! Utah Core Alignment	Envisions to Go Math! Alignment	Unit of Study 11 - Additional Resources
<u>Lesson 11.1</u> 2.G.1	-----	<u>Recognize Shapes by Attributes</u> Education Place - Sides and Vertices - Student Tutorial UEN - "Shapes Galore" Lesson
<u>Lesson 11.2</u> 2.G.1	-----	K-5 Math Teaching Resources –Tangram Shapes K-5 Math Teaching Resources - The Greedy Triangle Georgia Standards Frameworks – Unit 5
<u>Lesson 11.3</u> 2.G.1	Lesson 15-1	<u>Partition Rectangles and Circles</u> Sheppard Software - Fractions Shoot - Game
<u>Lesson 11.4</u> 2.G.1	-----	K-5 Math Teaching Resources – Cover a Rectangle - Rows and Columns K-5 Math Teaching Resources – Geoboard Halves Georgia Standards Frameworks – Unit 5
<u>Lesson 11.5</u> 2.G.1	Lesson 15-2	Illustrative Mathematics – Partitioning a Rectangle into Unit Squares
<u>Lesson 11.6</u> 2.G.2	-----	<u>GSD Additional Teacher Resources</u> Math Investigation Center – Unit 11 Learn Zillion Links – Chapter 11
<u>Lesson 11.7</u> 2.G.3	Lesson 15-5	<u>Literature</u> Circus Shapes by Stuart J. Murphy Captain Invincible and the Space Shapes by Stuart J. Murphy
<u>Lesson 11.8</u> 2.G.3	-----	Eating Fractions by Bruce McMillan Fraction Action by Loreen Leedy Give Me Half by Stuart Murphy
<u>Lesson 11.9</u> 2.G.3	Lesson 15-6	The Greedy Triangle by Marilyn Burns Shape Spotters by Megan E. Bryant
<u>Lesson 11.10</u> 2.G.3	-----	
Assessment Options		<ul style="list-style-type: none"> • Go Math! Assessment Options: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 11 Review/Test; Chapter 11 Test; Diagnostic Interview Assessment; Performance Assessment Chapter 11; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Appendix

General Website Resources

Instructional Support

[Learning Progressions for CCSM](#)
[Utah Core State Standards for Mathematics K-5](#)
[Utah Core State Standards for Mathematics 6-12](#)
[Georgia Standards of Excellence \(Activities and Lessons\)](#)
[Create a Graph](#)
[ThemeSpark \(Rubric Generator\)](#)
[K-2 Assessments Hawaii](#)
[UEN](#)
[Illuminations](#)
[Van de Walle - Blackline Masters](#)
[Youcubed](#)
[Math Their Way Assessment](#)
[Engage New York \(website\)](#)
[Ask Dr. Math](#)
[Education Place](#)
[Math.com](#)
[Math is Fun](#)
[Core Academy Teacher-Created Tasks](#)
[Online Math Learning \(Grade Specific\)](#)
[Illustrating the Standards for Mathematical Practice](#)
[Common Core Standards - Official Website](#)
[North Carolina Department of Public Instruction - Common Core Instructional Support Tools](#)

Games and Activities

[PBS Kids - Curious George](#)
[K-5 Math Teaching Resources](#)
[Math Playground – Thinking Blocks](#)
[Mathwire](#)
[FunBrain](#)
[Fuel the Brain](#)
[National Library of Virtual Manipulatives \(NLVM\)](#)
[Dr. Mike's Math Games](#)
[Scholastic Study Jams](#)

Videos

[Learn Zillion](#)
[Teaching Channel](#)
[Three-Act Math Tasks](#)