

1st Grade

Utah Core State Standards

Mathematics Curriculum Map

Granite School District

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

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How to Read the Grade Level Content Standards

Strand

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: OPERATIONS AND ALGEBRAIC THINKING (1.OA)

Represent and solve problems involving addition and subtraction within 20 (**Standards 1.OA.1–2, 1.OA.5–6**). Understand and apply properties of operations and the relationship between addition and subtraction (**Standards 1.OA.3–4**). Work with addition and subtraction equations (**Standards 1.OA.7–8**).

- **Standard 1.OA.1** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. *For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.*
- **Standard 1.OA.2** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. *For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.*
- **Standard 1.OA.3** Apply properties of operations as strategies to add and subtract. *For example: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.)* First grade students need not use formal terms for these properties.

Standard

Standards for Mathematical Practice

The Standards for Mathematical Practice in First 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 1.MP.1–8).

Standard 1.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 1.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 1.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 1.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 1.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 1.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 1.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 1.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](#)

1st 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	Addition Concepts	Strand: Operations and Algebraic Thinking Standards: 1, 3, 6
2	Chapter 2	Subtraction Concepts	Strand: Operations and Algebraic Thinking Standards: 1, 6, 8
3	Chapter 3	Addition Strategies	Strand: Operations and Algebraic Thinking Standards: 2, 3, 5, 6
4	Chapter 4	Subtraction Strategies	Strand: Operations and Algebraic Thinking Standards: 1, 4, 5, 6
5	Chapter 5	Addition and Subtraction Relationships	Strand: Operations and Algebraic Thinking Standards: 1, 6, 7, 8
6	Chapter 6	Count and Model Numbers	Strand: Number and Operations in Base Ten Standards: 1, 2, 2a, 2b, 2c, 3
7	Chapter 7	Compare Numbers	Strand: Number and Operations in Base Ten Standards: 3, 5
8	Chapter 8	Two-Digit Addition and Subtraction	Strand: Operations and Algebraic Thinking Standard: 6 Strand: Number and Operations in Base Ten Standards: 4, 6
9	Chapter 9	Measurement	Strand: Measurement and Data Standards: 1, 2, 3
10	Chapter 10	Represent Data	Strand: Measurement and Data Standard: 4
11	Chapter 11	Three-Dimensional Geometry	Strand: Geometry Standards: 1, 2
12	Chapter 12	Two-Dimensional Geometry	Strand: Geometry Standards: 1, 2, 3

1st 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	Semester 1 Pretest 8/20 – 2/8 (required)	13	14	18	12	16	16	Semester 1 Posttest 12/3 – 2/8 (required)	Semester 2 Pretest 12/3 – 3/1 (required)	10	18	18	10	8	13	Semester 2 Posttest 3/4 – 5/23 (required)	End of Year
Number of Lesson		8	9	12	6	10	10			5	9	9	7	5	10		Getting Ready for Gr. 2 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	Unit of Study 12		
Math Standards		*1.OA.1 *1.OA.7 1.OA.2 *1.OA.8 *1.OA.3 1.NBT.1 1.OA.4 *1.NBT.2 1.OA.5 1.NBT.3 *1.OA.6								1.OA.6 1.MD.3 *1.NBT.3 *1.MD.4 *1.NBT.4 1.MD.5 1.NBT.5 1.G.1 1.NBT.6 *1.G.2 1.MD.1 1.G.3 *1.MD.2							

*Indicates emphasized standards.

Beginning and Ending of Semesters

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

1st 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	14	1/		12	16	16		10	18	18		10	8	13	End of Year
Number of Lesson		8	9	12		6	10	10		5	9	9		7	5	10	Getting Ready for Gr. 2 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	Unit of Study 12	
Math Standards	GQB 1 8/20 (supplemental)	*1.OA.1 1.OA.2 *1.OA.3 1.OA.5 *1.OA.6 1.OA.8			GQB 2 10/29 (supplemental)	*1.OA.1 1.OA.4 1.OA.5 *1.OA.6 *1.OA.7 *1.OA.8 1.NBT.1 *1.NBT.2 1.NBT.3			GQB 3 1/14 (supplemental)	1.OA.6 *1.NBT.3 *1.NBT.4 1.NBT.5 1.NBT.6 1.MD.1 *1.MD.2 1.MD.3 1.MD.5			GQB 4 3/1 (supplemental)	*1.MD.4 1.G.1 *1.G.2 1.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

1st 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/
Progressions 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. <i>GSD Additional Teacher Resources</i> 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 about key details in a math text.
- Describe the connection between ideas or information in a math text.
- Ask and answer questions about unknown math words in a text.
- Use text features to locate key facts or information in a math text.
- Distinguish between information provided by pictures and information provided by words in a math text.
- Use illustrations and details in a math text to describe key ideas.
- Identify similarities and differences between illustrations, descriptions or procedures on the same math topic.
- With prompting and support, read math texts.

Writing Standards

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

Speaking and Listening Standards

- Participate in collaborative conversations about math topics.
- Ask and answer questions about key 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 when appropriate to math tasks and situations.

Unit of Study 1	1 st Grade	Quarter 1	Approx. 11 – 13 days	GSD Revised 6/1/18
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Strand: Operations and Algebraic Thinking 1.OA

Represent and solve problems involving addition and subtraction within 20.

1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. *For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.*

6. Add and subtract within 20.

a. Use 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 the end of Grade 1, demonstrating fluency for addition and subtraction within 10.

Understand and apply properties of operations and the relationship between addition and subtraction.

3. Apply properties of operations as strategies to add and subtract. *For example: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.) First grade students need not use formal terms for these properties.*

Strand: GSD

1. Name the months and seasons of the year in order.
2. Identify a day, week, and month on a calendar.
3. Use a calendar to determine the day of the week and date.
4. Identify ordinal numbers 1st - 12th.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p><u>1.OA.1</u></p> <ul style="list-style-type: none"> ☞ Solve word problems by adding. ☞ Solve word problems by subtracting. • Solve word problems by using objects. • Solve word problems by using drawings. • Use a symbol for an unknown number in an equation. 	<ul style="list-style-type: none"> • add • addend • Additive Identity Property of 0 • bar model • Commutative Property of Addition • count on • date • day • equal • equation • expression 	<ul style="list-style-type: none"> • making ten • order • plus • sum • zero

Unit of Study 1 (continued)

Math Content Objectives

1.OA.3

- ◐ Add addends in any order. (Commutative Property of Addition)
- Group numbers to add three addends. (Associative Property of Addition)
- ◐ Understand what happens when zero is added to a number. (Additive Identity Property of 0)
- Solve subtraction problems.

1.OA.6

- Add numbers within 20.
- Subtract numbers within 20.
- ◐ Fluently add numbers within 10.
- Fluently subtract numbers within 10.

GSD

- Name the months of the year in order.
- Name the seasons of the year in order.
- Use a calendar to find a day of the week and its date.
- Use ordinal numbers to count first through twelfth.

◐ Key Concepts for Differentiation - See p. 7.

Go Math! Utah Core Alignment	Unit of Study 1 – Additional Resources
<u>Lesson 1.1</u> 1.OA.1	<u>Addition Within Ten</u> Sheppard Software - Bugabaloo - Game HMH School Publishers - Busy Bees - Game
<u>Lesson 1.2</u> 1.OA.1	Ambleside Primary - Number Bond Machines - Interactive Applet HMH School Publishers - Great Day for Number Lines - Interactive Applet NLVM - Base Blocks Addition - Interactive Applet
<u>Lesson 1.3</u> 1.OA.1	PBS Kids - Curious George's Busy Day - Museum of Tens Game Education Place - Using Symbols to Add - Student Tutorial Education Place - Addition Facts Through Ten - Student Tutorial
<u>Lesson 1.4</u> 1.OA.1	HMH School Publishers - Adding Bricks - Game Education Place - eManipulative Number Line Education Place - eManipulatives Counters
<u>Lesson 1.5</u> 1.OA.3	Education Place - eManipulatives Connecting Cubes Illuminations - "Finding Addition Patterns" Lesson UEN - "Double Those Ducks!" Lesson
<u>Lesson 1.6</u> 1.OA.3	UEN - "Add a Quack, Quack Here" Lesson UEN - "Add It Up" Lesson
<u>Lesson 1.7</u> 1.OA.1	<u>Properties</u>
<u>Lesson 1.8</u> 1.OA.6	<u>Ordinal Numbers 1st - 12th</u> Education Place - Ordinal Numbers - Student Tutorial UEN - "Who's On First?" Lesson YouTube - Ordinal Numbers - Video

Unit of Study 1 – Additional Resources - Continued

Calendar

[HMH School Publishers - Days of Fun - Interactive Applet](#)

[Softschools - Calendar Quiz - Assessment](#)

[Beacon Learning Center - It's a Date! - Interactive Applet](#)

[UEN - "A Chick Called Saturday" Lesson](#)

Seasons

[UEN - "Exploring the Seasons" Lesson](#)

[UEN - "Five Senses and Four Seasons Quilt" Lesson](#)

[UEN - "Seasons" Lesson](#)

GSD Additional Teacher Resources

[Math Investigation Centers – Unit 1](#)

Unit of Study 1 - Additional Resources - Continued

Literature

Animals on Board by Stuart J. Murphy
Caps, Hats, Socks, and Mittens: A Book About the Four Seasons by Louise Borden
Cat Show by Jayne Harvey
Cats Add Up! by Dianne Ochiltree
A Chick Called Saturday by Joyce Dunbar
Chicken Soup with Rice by Maurice Sendak
Circle of Seasons by Gerda Muller
Counting at the Zoo by Laurie Chilek
Counting Crocodiles by Judy Sierra
A Day by Robin Nelson
The First Day of Winter by Denise Fleming
First, Second by Daniil Kharms
Fish Eyes by Lois Ehlert
Five Little Penguins Slipping on the Ice by Steve Metzger
The Hershey's Kisses Addition Book by Jerry Pallotta
I Can Add Up by Ray Gibson
M & M's Addition Book by Barbara Barbieri McGrath
Math Fables by Greg Tang
Mission Addition by Loreen Leedy
Months by Robin Nelson
More or Less by Rebecca Fjelland Davis
One Guinea Pig Is Not Enough by Kate Duke
Pepper's Journal by Stuart J. Murphy
Quack and Count by Keith Baker
Seasons by Robin Nelson
The Seasons of Arnold's Apple Tree by Gail Gibbons
Seven Blind Mice by Ed Young
Ten Flashing Fireflies by Philemon Sturges
10 Little Rubber Ducks by Eric Carle
Today is Monday by Eric Carle
A Week by Robin Nelson

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	1 st Grade	Quarter 1	Approx. 12 – 14 days	GSD Revised 6/1/18
Strand: Operations and Algebraic Thinking				1.OA
Represent and solve problems involving addition and subtraction within 20.				
1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. <i>For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i>				
6. Add and subtract within 20.				
a. Use 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 the end of Grade 1, demonstrating fluency for addition and subtraction within 10.				
Work with addition and subtraction equations.				
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.</i>				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p>1.OA.1</p> <ul style="list-style-type: none"> ☞ Solve word problems by adding. ☞ Solve word problems by subtracting. • Solve word problems by using objects. • Solve word problems by using drawings. • Use a symbol for an unknown number in an equation. <p>1.OA.6</p> <ul style="list-style-type: none"> • Add numbers within 20. • Subtract numbers within 20. • Fluently add numbers within 10. ☞ Fluently subtract numbers within 10. <p>1.OA.8</p> <ul style="list-style-type: none"> • Find a missing number in an addition problem. • Find a missing number in a subtraction problem. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • bar model • compare • difference • equal • equation • expression • fewer • minus • more • subtract • take away 			

Go Math! Utah Core Alignment	Unit of Study 2 - Additional Resources
<p>Lesson 2.1 1.OA.1</p> <p>Lesson 2.2 1.OA.1</p> <p>Lesson 2.3 1.OA.1</p> <p>Lesson 2.4 1.OA.1</p> <p>Lesson 2.5 1.OA.8</p> <p>Lesson 2.6 1.OA.1</p> <p>Lesson 2.7 1.OA.8</p> <p>Lesson 2.8 1.OA.1</p> <p>Lesson 2.9 1.OA.6</p>	<p>Subtraction Within Ten Education Place - Subtract in Vertical Form - Student Tutorial BBC - The Little Animals Activity Centre - Game Sheppard Software - Matching Subtraction - Interactive Applet Toy Theater - Bug Catcher - Game Education Place - Subtraction Facts Through 10 - Student Tutorial Education Place - eManipulatives Connecting Cubes UEN - "Addition and Subtraction in Center Time" Lesson</p> <p>GSD Additional Teacher Resources Math Investigation Centers – Unit 2</p> <p>Literature Elevator Magic by Stuart J. Murphy The Hershey’s Kisses Subtraction Book by Jerry Pallotta How Many Feet in the Bed by Diane Johnston Hamm How Many Mice? by Michael Garland Little Quacks Hide and Seek by Lauren Thompson Monster Musical Chairs by Stuart J. Murphy More or Less by Rebecca Fjelland Davis Splash! by Ann Jonas Ten Little Fish by Audrey Wood & Bruce Wood Ten Sly Piranhas by William Wise Turtle Splash! Countdown at the Pond by Cathryn Falwell</p>
<p>Assessment Options</p>	<ul style="list-style-type: none"> • 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; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 3	1 st Grade	Quarter 1	Approx. 15 – 18 days	GSD Revised 6/1/18
Strand: Operations and Algebraic Thinking				1.OA
Represent and solve problems involving addition and subtraction within 20.				
2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20. For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.				
5. Relate counting to addition and subtraction. For example, by counting on 2 to add 2.				
6. Add and subtract within 20.				
a. Use 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 the end of Grade 1, demonstrating fluency for addition and subtraction within 10.				
Understand and apply properties of operations and the relationship between addition and subtraction.				
3. Apply properties of operations as strategies to add and subtract. For example: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$, the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$. (Associative property of addition.) First grade students need not use formal terms for these properties.				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p>1.OA.2</p> <ul style="list-style-type: none"> Solve word problems by adding three numbers. <p>1.OA.3</p> <ul style="list-style-type: none"> Add addends in any order. (Commutative Property of Addition) Group numbers to add three addends. (Associative Property of Addition) Understand what happens when zero is added to a number. (Additive Identity Property of 0) Solve subtraction problems. <p>1.OA.5</p> <ul style="list-style-type: none"> Use counting strategies to add. Use counting strategies to subtract. <p>1.OA.6</p> <ul style="list-style-type: none"> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. <p>Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> add addend Associative Property of Addition Commutative Property of Addition count on decompose doubles doubles minus 1 doubles plus 1 equation expression making ten sum 			

Go Math! Utah Core Alignment	Unit of Study 3 - Additional Resources
<p><u>Lesson 3.1</u> 1.OA.3</p> <p><u>Lesson 3.2</u> 1.OA.5</p> <p><u>Lesson 3.3</u> 1.OA.6</p> <p><u>Lesson 3.4</u> 1.OA.6</p> <p><u>Lesson 3.5</u> 1.OA.6</p> <p><u>Lesson 3.6</u> 1.OA.6</p> <p><u>Lesson 3.7</u> 1.OA.6</p> <p><u>Lesson 3.8</u> 1.OA.6</p> <p><u>Lesson 3.9</u> 1.OA.6</p> <p><u>Lesson 3.10</u> 1.OA.3</p> <p><u>Lesson 3.11</u> 1.OA.3</p> <p><u>Lesson 3.12</u> 1.OA.2</p>	<p><u>Addition Strategies Within 20</u> Education Place - Make a Ten to Add - Student Tutorial Education Place - Make 10 to Add - Student Tutorial Education Place - Add Three Numbers - Student Tutorial Education Place - eManipulatives Addition Table Education Place - Using Doubles to Add - Student Tutorial Education Place - Rock Hopper - Game Toy Theater - Addition Pull - Game Toy Theater - Addition Bingo - Game HMH School Publishers - Addition Surprise - Game</p> <p><u>Properties</u> Purplemath - Basic Number Properties - Teacher Tutorial</p> <p><u>GSD Additional Teacher Resources</u> Math Investigation Centers – Unit 3</p> <p><u>Literature</u> Double the Ducks by Stuart J. Murphy Help Me Learn Addition by Jean Marzollo Twelve Ways to Get to 11 by Eve Merriam</p>
<p>Assessment Options</p>	<ul style="list-style-type: none"> • 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	1 st Grade	Quarter 2	Approx. 9 – 12 days	GSD Revised 6/1/18
Strand: Operations and Algebraic Thinking				1.OA
Represent and solve problems involving addition and subtraction within 20.				
1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. <i>For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i>				
5. Relate counting to addition and subtraction. <i>For example, by counting on 2 to add 2.</i>				
6. Add and subtract within 20.				
a. Use 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 the end of Grade 1, demonstrating fluency for addition and subtraction within 10.				
Understand and apply properties of operations and the relationship between addition and subtraction.				
4. Understand subtraction as an unknown-addend problem. <i>For example, subtract $10 - 8$ by finding the number that makes 10 when added to 8.</i>				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p>1.OA.1</p> <ul style="list-style-type: none"> ☛ Solve word problems by adding. ☛ Solve word problems by subtracting. • Solve word problems by using objects. • Solve word problems by using drawings. • Use a symbol for an unknown number in an equation. <p>1.OA.4</p> <ul style="list-style-type: none"> • Use addition to solve subtraction problems. <p>1.OA.5</p> <ul style="list-style-type: none"> • Use counting strategies to add. • Use counting strategies to subtract. <p>1.OA.6</p> <ul style="list-style-type: none"> • Add numbers within 20. ☛ Subtract numbers within 20. • Fluently add numbers within 10. ☛ Fluently subtract numbers within 10. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • count back • count up • decompose • difference • equal • equation • expression • making ten • minus • plus • subtract • sum • take away 			

Go Math! Utah Core Alignment	Unit of Study 4 - Additional Resources
<p><u>Lesson 4.1</u> 1.OA.5</p> <p><u>Lesson 4.2</u> 1.OA.4</p> <p><u>Lesson 4.3</u> 1.OA.4</p> <p><u>Lesson 4.4</u> 1.OA.6</p> <p><u>Lesson 4.5</u> 1.OA.6</p> <p><u>Lesson 4.6</u> 1.OA.1</p>	<p><u>Subtraction Strategies Within 20</u> Education Place - Subtract in Vertical Form - Student Tutorial Education Place - Use Addition to Subtract - Student Tutorial Education Place - Count Back to Subtract - Assessment Toy Theater - Subtraction Bingo - Game UEN - "Add a Quack, Quack Here" Lesson</p> <p><u>GSD Additional Teacher Resources</u> Math Investigation Centers – Units 4 and 5</p> <p><u>Literature</u> Elevator Magic by Stuart J. Murphy Ready, Set, Hope by Stuart J. Murphy</p>
<p>Assessment Options</p>	<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; Soar to Success; Standards Practice Pages. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 5	1 st Grade	Quarter 2	Approx. 13 – 16 days	GSD Revised 6/1/18
Strand: Operations and Algebraic Thinking				1.OA
Represent and solve problems involving addition and subtraction within 20.				
1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. <i>For example, use objects, drawings, and equations with a symbol for the unknown number to represent the problem.</i>				
6. Add and subtract within 20.				
a. Use 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 the end of Grade 1, demonstrating fluency for addition and subtraction within 10.				
Work with addition and subtraction equations.				
7. Understand the meaning of the equal sign, and determine whether equations involving addition and subtraction are true or false. <i>For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.</i>				
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. <i>For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = ? - 3$, $6 + 6 = ?$.</i>				
Math Content Objectives	Vocabulary	Vocabulary (cont.)		
<p>I can:</p> <p>1.OA.1</p> <ul style="list-style-type: none"> Solve word problems by adding. Solve word problems by subtracting. Solve word problems by using objects. Solve word problems by using drawings. Use a symbol for an unknown number in an equation. <p>1.OA.6</p> <ul style="list-style-type: none"> ☞ Add numbers within 20. ☞ Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. <p>1.OA.7</p> <ul style="list-style-type: none"> ☞ Understand what an equal sign means. Tell if an equation is true or false. <p>1.OA.8</p> <ul style="list-style-type: none"> ☞ Find a missing number in an addition problem. ☞ Find a missing number in a subtraction problem. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> add addend bar model Commutative Property of Addition difference equal equal sign equation expression fact family false minus plus related facts 	<ul style="list-style-type: none"> is the same as subtract sum take away true 		

Go Math! Utah Core Alignment	Unit of Study 5 – Additional Resources
<u>Lesson 5.1</u> 1.OA.1	<u>Related Facts/ Fact Family</u> Education Place - Relate Addition and Subtraction - Student Tutorial Education Place - Fact Families - Student Tutorial
<u>Lesson 5.2</u> 1.OA.6	Education Place - Fact Families - Student Tutorial IXL - Addition: Related Addition Facts - Assessment UEN - "A Family of Facts" Lesson
<u>Lesson 5.3</u> 1.OA.6	<u>Basic Addition and Subtraction Facts to 20</u> Sheppard Software - Matching Addition - Game
<u>Lesson 5.4</u> 1.OA.6	Education Place - Extra Practice - Part/Part/Whole Model EM Games - Addition and Subtraction Trains - Game ICT Games - The Adding 9 Fairy - Game
<u>Lesson 5.5</u> 1.OA.8	ICT Games - Special Space Jumps - Game HMH School Publishers - Flower Power - Interactive Applet HMH School Publishers - Seashell Search - Interactive Applet
<u>Lesson 5.6</u> 1.OA.8	Sheppard Software - Subtraction Harvest - Game
<u>Lesson 5.7</u> 1.OA.1	
<u>Lesson 5.8</u> 1.OA.6	
<u>Lesson 5.9</u> 1.OA.7	
<u>Lesson 5.10</u> 1.OA.6	

Unit of Study 5 - Additional Resources - Continued

Equal Sign/Balanced Expressions

[PBS Kids Cyberchase - Poodles Weigh In - Game](#)

[Illuminations - "Comparing Connecting Cubes" Lesson](#)

GSD Additional Teacher Resources

[Math Investigation Center – Units 4 and 5](#)

Literature

[Equal Shmequal](#) by Virginia Kroll

[Seven Little Rabbits](#) by John Becker

[The Wolf's Chicken Stew](#) by Keiko Kasza

Assessment Options

- **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; Performance Assessment Chapters 1-5; Personal Math Trainer.
- **Daily/Weekly Formative Assessment Options:** Exit Slips, Observation, Daily Work, Homework.

Extend the counting sequence.
 1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.

Understand place value.
 2. Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:
 a. 10 can be thought of as a bundle of ten ones, called a “ten.”
 b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
 c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).
 3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>1.NBT.1</u></p> <ul style="list-style-type: none"> Count to 120 starting at any number. Read numbers to 120. Write numbers to 120. Write a number to show how many objects are in a group. <p><u>1.NBT.2a</u></p> <p>☛ Understand a group of ten ones is the same as ten.</p> <p><u>1.NBT.2b</u></p> <p>☛ Understand that numbers 11-19 are a group of ten and more ones.</p> <p><u>1.NBT.2c</u></p> <p>☛ Understand numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 are groups of ten and zero ones.</p> <p><u>1.NBT.3</u></p> <ul style="list-style-type: none"> Use $>$, $=$, and $<$ to compare 2 two-digit numbers. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> column digit equal expression hundred number numeral object ones place value row ten tens zero 	

Go Math! Utah Core Alignment	Unit of Study 6 - Additional Resources
<p>Lesson 6.1 1.NBT.1</p> <p>Lesson 6.2 1.NBT.1</p> <p>Lesson 6.3 1.NBT.2b</p> <p>Lesson 6.4 1.NBT.2b</p> <p>Lesson 6.5 1.NBT.2a; 1.NBT.2c</p> <p>Lesson 6.6 1.NBT.2</p> <p>Lesson 6.7 1.NBT.2</p> <p>Lesson 6.8 1.NBT.21; 1.NBT.3</p> <p>Lesson 6.9 1.NBT.1</p> <p>Lesson 6.10 1.NBT.1</p>	<p>Grouping Ones to Form Tens Education Place - Tens and Ones - Student Tutorial Georgia Standards Frameworks – Unit 5</p> <p>Tens and Ones to 120 ICT Games - Lifeguards - Game HMH School Publishers - Count Along to 100 - Interactive Applet Education Place - Identify Place Value - Student Tutorial Education Place - eManipulatives Base 10 Blocks ICT Games - Shark Numbers - Game Georgia Standards Frameworks – Unit 5</p> <p>GSD Additional Teacher Resources Math Investigation Center – Units 6 and 7</p> <p>Literature 100 Days of Cool by Stuart J. Murphy 100 School Days by Anne Rockwell 100th Day Worries by Margery Cuyler Seven Little Rabbits by John Becker</p>
<p>Assessment Options</p>	<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; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 7	1 st Grade	Quarter 3	Approx. 8 – 13 days	GSD Revised 6/1/18
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Strand: Number and Operations in Base Ten	1.NBT
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Extend the counting sequence.
 3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols $>$, $=$, and $<$.
Use place value understanding and properties of operations to add and subtract.
 5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>1.NBT.3</u> ☛ Use $>$, $=$, and $<$ to compare 2 two-digit numbers.</p> <p><u>1.NBT.5</u></p> <ul style="list-style-type: none"> • Use mental math to add 10 to a number. • Use mental math to subtract 10 from a number. • Explain how to find 10 more or 10 less than a number. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • compare • difference • digit • equal • greater than • less than • more than • ones • place value • subtract • sum • ten • tens 	

Go Math! Utah Core Alignment	Unit of Study 7 - Additional Resources
<p>Lesson 7.1 1.NBT.3</p> <p>Lesson 7.2 1.NBT.3</p> <p>Lesson 7.3 1.NBT.3</p> <p>Lesson 7.4 1.NBT.3</p> <p>Lesson 7.5 1.NBT.5</p>	<p>Comparing 2-Digit Numbers Education Place - Comparing Numbers - Student Tutorial Crickweb - Compare Numbers - Interactive Applet Ambleside Primary - Counter Square - Model Topmarks - Caterpillar Ordering - Game UEN - "Bear Time" Lesson Learn Zillion – Ocean World, Day 1: Practice Comparing Numbers K-5 Math Teaching Resources – Scoop It K-5 Math Teaching Resources – Ten More Game K-5 Math Teaching Resources – Racing Around Game (-10)</p> <p>Ten More/Ten Less Than a Number ICT Games - 10 Less Shoot Out - Game</p> <p>GSD Additional Teacher Resources Math Investigation Center – Units 6 and 7 Bear Squeeze Game or Teacher Directed Ten Less, Ten More Game Ten Less, Ten More Spinner Game Number Cards Who Has More? Game</p> <p>Literature More or Less by Stuart Murphy</p>
<p>Assessment Options</p>	<ul style="list-style-type: none"> • 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	1 st Grade	Quarter 3	Approx. 12 – 19 days	GSD Revised 6/1/18
Strand: Operations and Algebraic Thinking				1.OA
Represent and solve problems involving addition and subtraction within 20. .				
<p>6. Add and subtract within 20.</p> <p>a. Use 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 $6 + 6 + 1 = 12 + 1 = 13$).</p> <p>b. By the end of Grade 1, demonstrating fluency for addition and subtraction within 10.</p>				
Strand: Number and Operations in Base Ten				1.NBT
Use place value understanding and properties of operations to add and subtract.				
<p>4. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, 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 and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens to tens, ones to ones; and that it is sometimes necessary to compose a ten.</p> <p>6. Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), 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 and explain the reasoning used.</p>				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p>1.OA.6</p> <ul style="list-style-type: none"> • Add numbers within 20. • Subtract numbers within 20. • Fluently add numbers within 10. • Fluently subtract numbers within 10. <p>1.NBT.4</p> <ul style="list-style-type: none"> ☞ Add within 100. • Use models to add ones or tens to a two-digit number. ☞ Use place value to add ones or tens to a two-digit number. <p>1.NBT.6</p> <ul style="list-style-type: none"> • Use models to subtract groups of 10 from other groups of 10. • Explain how to subtract groups of 10 from other groups of 10. <p>☞ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • add • addend • count on • difference • digit • equation • expression • making ten • ones • place value • subtract • sum • tens 		<div data-bbox="1010 935 2007 1084" style="border: 1px solid black; padding: 5px;"> <p>Any problem where the sum is less than 100 is included here. The point of the "including" was to make sure that these simpler types of problems were not neglected for their power to reveal the role of the base 10 system in two-digit addition.</p> </div>	

Go Math! Utah Core Alignment	Unit of Study 8 - Additional Resources
<p>Lesson 8.1 1.OA.6</p> <p>Lesson 8.2 1.NBT.4</p> <p>Lesson 8.3 1.NBT.6</p> <p>Lesson 8.4 1.NBT.4</p> <p>Lesson 8.5 1.NBT.4</p> <p>Lesson 8.6 1.NBT.4</p> <p>Lesson 8.7 1.NBT.4</p> <p>Lesson 8.8 1.NBT.4</p> <p>Lesson 8.9 1.NBT.4; 1.NBT.6</p>	<p><u>Add and Subtract - Basic Facts Within 20</u></p> <p><u>Place Value (Tens and Ones)</u> Education Place - Identify Place Value - Student Tutorial Education Place - eManipulatives Base 10 Blocks Education Place - Regroup Tens - Student Tutorial Education Place - Regroup Ones as Tens - Student Tutorial HMH School Publishers - Numbers to 100 in Different Ways - Interactive Applet</p> <p><u>Two-Digit Addition and Subtraction</u> ICT Games - Submarine - Game ICT Games - Adding 10 Depthcharger - Game Education Place - Add with Two-Digit Numbers - Student Tutorial Thinking Blocks - Addition and Subtraction Word Problems - Bar Model K-5 Math Teaching Resources – Domino Addition K-5 Math Teaching Resources – Subtract Multiples of 10 Learn Zillion – Fluently Adding a Two-Digit Number</p> <p><u>GSD Additional Teacher Resources</u> Math Investigation Centers – Unit 8 Adding two-digit numbers in 1st grade – teacher tutorial Georgia Standards Frameworks – I Spy Combinations - Game Georgia Standards Frameworks – Make Twenty - Game Addition Strategies – Foldable Subtraction Strategies - Foldable Close to 20 - Game Numeral Cards</p> <p><u>Literature</u></p>
<p>Assessment Options</p>	<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; Performance Assessment Chapters 6-8; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 9	1 st Grade	Quarter 3	Approx. 12 – 18 days	GSD Revised 6/1/18
Strand: Measurement and Data				1.MD
<p>Measure lengths indirectly and by iterating length units.</p> <p>1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.</p> <p>2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. <i>Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.</i></p> <p>Tell and write time.</p> <p>3. Tell and write time in hours and half-hours using analog and digital clocks.</p> <p>Identify the value of coins.</p> <p>5. Identify the values of pennies, nickels, dimes and quarters, and know their comparative values. <i>(For example, a dime is of greater value than a nickel.) Use appropriate notation to designate a coin’s value. (For example, 5¢.)</i></p>				
Math Content Objectives	Vocabulary			
<p>I can:</p> <p><u>1.MD.1</u></p> <ul style="list-style-type: none"> • Compare and order objects by length. <p><u>1.MD.2</u></p> <ul style="list-style-type: none"> • Measure length using units. <p><u>1.MD.3</u></p> <ul style="list-style-type: none"> • Tell time to the hour. • Tell time to the half-hour. • Tell time using analog or digital clocks. <p><u>1.MD.5</u></p> <ul style="list-style-type: none"> • Identify a penny, nickel, dime, and quarter. • Identify the value of pennies, nickels, dimes, and quarters. <p>• Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • analog clock • compare • digital clock • dime • half hour • half past • hour • hour hand • length • longer • longest • measure • minute hand • minute • nickel • object • penny • quarter • shorter • shortest • taller • tallest • unit 			

Go Math! Utah Core Alignment	Unit of Study 9 – Additional Resources
<u>Lesson 9.1</u> 1.MD.1	<p><u>Measuring and Comparing Length Using Nonstandard Units</u> Education Place - Compare, Order, and Measure Length - Student Tutorial PBS Kids - Clifford Measuring Up - Game</p>
<u>Lesson 9.2</u> 1.MD.1	<p>PBS Kids - Curious George How Tall? - Game UEN - "How Big is a Foot?" Lesson UEN - "Lengths of Ladybugs" Lesson</p>
<u>Lesson 9.3</u> 1.MD.2	<p>UEN - "The Length of My Foot" Lesson UEN - "A King's Foot is Always Best" Lesson K-5 Math Teaching Resources – Which is Longest?</p>
<u>Lesson 9.4</u> 1.MD.2	<p>K-5 Math Teaching Resources – Scoop and Order K-5 Math Teaching Resources – Measuring with Snap Cubes Georgia Standards Frameworks – Unit 4 Lessons</p>
<u>Lesson 9.5</u> 1.MD.2	<p><u>Time (Hours and Half Hours)</u> PBS Kids - Curious George - Curious Clock Printable</p>
<u>Lesson 9.6</u> 1.MD.3	<p>HMH School Publishers - Willy the Watchdog - Game Education Place - Tell Time to the Hour - Student Tutorial Cambridge - Cambridge Clock - Interactive Applet</p>
<u>Lesson 9.7</u> 1.MD.3	<p>Education Place - Half-Hour - Student Tutorial K-5 Math Teaching Resources - Time Barrier Game Georgia Standards Frameworks – Unit 4 Lessons</p>
<u>Lesson 9.8</u> 1.MD.3	<p>Learn Zillion – Practice Telling Time to the Half Hour</p>
<u>Lesson 9.9</u> 1.MD.3	<p><u>Money</u> ABCya - Learning Coins - Student Tutorial</p>
	<p><u>GSD Additional Teacher Resources</u> Math Investigation Centers – Units 9 and 10 Time Check Activity Grandfather Clock Go Fish Time Core Academy – Show Me the Money 1.MD.5 – Money Money Activities</p>

Unit of Study 9 - Additional Resources - Continued

Literature

Bats Around the Clock by Kathi Appelt
Benny's Pennies by Pat Brisson
The Best Bug Parade by Stuart J. Murphy
The Clock Struck One: A Time-Telling Tale by Trudy Harris
Cluck O' Clock by Kes Gray
Dimes by Mary Hill
The Grouchy Ladybug by Eric Carle
How Big is a Foot? by Rolf Myller
It's About Time! by Stuart J. Murphy
Math Counts: Length by Henry Arthur Pluckrose
Math Counts: Size by Henry Arthur Pluckrose
Measuring Penny by Loreen Leedy
Monster Math School Time by Grace Maccarone
Nickels by Mary Hill
Pennies by Mary Hill
Pig Pigger Piggest by Rick Walton
Quarters by Mary Hill
Super Sand Castle Saturday by Stuart J. Murphy
What Time Is It? by Sheila Keenan
What Time is it Mr. Crocodile? By Judy Sierra

Assessment Options

- **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	1 st Grade	Quarter 4	Approx. 10 days	GSD Revised 6/1/18
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Strand: Measurement and Data 1.MD

Represent and interpret data.
 4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Math Content Objectives	Vocabulary	
<p>I can:</p> <p><u>1.MD.4</u></p> <ul style="list-style-type: none"> ☛ Make a graph to show data. ☛ Answer questions about the groups of data. <p>☛ Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • bar graph • category • compare • data • equal • fewer • fewest • greater than • less than • more • most • picture graph • tally chart • tally mark 	

Go Math! Utah Core Alignment	Unit of Study 10 - Additional Resources
<p>Lesson 10.1 1.MD.4</p> <p>Lesson 10.2 1.MD.4</p> <p>Lesson 10.3 1.MD.4</p> <p>Lesson 10.4 1.MD.4</p> <p>Lesson 10.5 1.MD.4</p> <p>Lesson 10.6 1.MD.4</p> <p>Lesson 10.7 1.MD.4</p>	<p>Bar Graphs and Picture Graphs Teachers.net - Math Graph Center - Centers UEN - "Graphing It Daily" Lesson UEN - "Just Graph It!" Lesson UEN - "Daily Graph" Lesson K-5 Math Teaching Resources – Which Has More?</p> <p>Tally Charts K-5 Math Teaching Resources - Duck! Rabbit!</p> <p>GSD Additional Teacher Resources Tally O'Malley Math Investigation Centers – Units 9 and 10</p> <p>Literature The Great Graph Contest by Loreen Leedy Guess Who My Favorite Person Is by Byrd Baylor Hannah's Collections by Marthe Jocelyn Harriet's Halloween Candy by Nancy Carlson Tally O'Malley by Stuart J. Murphy</p>
<p>Assessment Options</p>	<ul style="list-style-type: none"> • 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; Performance Assessment Chapters 9-10; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 11	1 st Grade	Quarter 4	Approx. 8 days	GSD Revised 6/1/18
Strand: Geometry				1.G
<p>Reason with shapes and their attributes.</p> <p>1. Distinguish between defining attributes (for example, triangles are closed and three-sided) versus non-defining attributes (for example, color, orientation, overall size); build and draw shapes to possess defining attributes.</p> <p>2. Compose shapes.</p> <p>a. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.</p> <p>b. Compose three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. First grade students do not need to learn formal names such as “right rectangular prism.”</p>				
Math Content Objectives		Vocabulary		
<p>I can:</p> <p><u>1.G.1</u></p> <ul style="list-style-type: none"> • Describe the defining attributes of a shape. • Describe the non-defining attributes of a shape. • Describe the attributes of a shape that make it that shape. • Build or draw a shape with defining attributes <p><u>1.G.2</u></p> <ul style="list-style-type: none"> ◦→ Make a new shape by combining other shapes. <p>◦→ Key Concepts for Differentiation - See p. 7.</p>		<ul style="list-style-type: none"> • alike • attribute • compose • composite shape • cone • cube • curved surface • cylinder • different • face • flat surface • rectangular prism • solid shape • sort • sphere • three-dimensional shape • two-dimensional shape 		

Go Math! Utah Core Alignment	Unit of Study 11 - Additional Resources
<p>Lesson 11.1 1.G.1</p> <p>Lesson 11.2 1.G.2</p> <p>Lesson 11.3 1.G.2</p> <p>Lesson 11.4 1.G.2</p> <p>Lesson 11.5 1.G.1</p>	<p>3-Dimensional Shapes (Cubes, Right Rectangular Prisms, Cones, Cylinders)</p> <p>Education Place - Identify and Sort Solid Shapes - Student Tutorial</p> <p>HMH School Publishers - Solid Figure Factory - Interactive Applet</p> <p>Illustrative Mathematics – 3D Shape Sort</p> <p>Illuminations – I’ve Seen That Shape Before</p> <p>YouTube – GiggleBellies – Monster Trucks Learn 3D Shapes</p> <p>Learn Zillion – Organize, represent, and interpret a data set</p> <p>GSD Additional Teacher Resources</p> <p>Math Investigation Centers – Units 11 and 12</p> <p>Literature</p> <p>Captain Invincible and the Space Shapes by Stuart J. Murphy</p> <p>Cubes, Cones, Cylinders, & Spheres by Tana Hoban</p> <p>The Important Book by Margaret Brown</p> <p>Jack the Builder by Stuart J. Murphy</p>
<p>Assessment Options</p>	<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; Personal Math Trainer. • Daily/Weekly Formative Assessment Options: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 12	1 st Grade	Quarter 4	Approx. 13 days	GSD Revised 6/1/18
Strand: Geometry				1.G

Reason with shapes and their attributes.

1. Distinguish between defining attributes (for example, triangles are closed and three-sided) versus non-defining attributes (for example, color, orientation, overall size); build and draw shapes to possess defining attributes.
2. Compose shapes.
 - a. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create a composite shape, and compose new shapes from the composite shape.
 - b. Compose three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. First grade students do not need to learn formal names such as “right rectangular prism.”
3. Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves*, *fourths*, and *quarters*, and use the phrases *half of*, *fourth of*, and *quarter of*. Describe the whole as two of, or four of the shares. Understand that, for these examples, decomposing into more equal shares creates smaller shares.

Math Content Objectives	Vocabulary	Vocabulary (cont.)
<p>I can:</p> <p>1.G.1</p> <ul style="list-style-type: none"> • Describe the defining attributes of a shape. • Describe the non-defining attributes of a shape. • Describe the attributes of a shape that make it that shape. • Build or draw a shape with defining attributes <p>1.G.2</p> <ul style="list-style-type: none"> • Make a new shape by combining other shapes. <p>1.G.3</p> <ul style="list-style-type: none"> • Show and name equal parts of a circle. • Show and name equal parts of a rectangle. • Understand that sharing a shape into more equal pieces gives smaller shares. <p>• Key Concepts for Differentiation - See p. 7.</p>	<ul style="list-style-type: none"> • alike • attribute • circle • closed figure • composite shape • different • equal parts • equal shares • fourth of • fourths • half-circle • half of • halves • hexagon • partition • quarter-circle • quarter of • quarters • rectangle • rhombus 	<ul style="list-style-type: none"> • side • sort • square • trapezoid • triangle • unequal parts • unequal shares • vertex (plural - vertices) • whole

Go Math! Utah Core Alignment	Unit of Study 12 – Additional Resources
<u>Lesson 12.1</u> 1.G.1	<u>2-Dimensional Shapes (Rectangles, Squares, Trapezoids, Triangles, Half-Circles, Quarter-Circles)</u> Kiz Club - Shapes - Student Tutorial Education Place - Plane Shapes - Student Tutorial
<u>Lesson 12.2</u> 1.G.1	NLVM - Pattern Blocks - Interactive Applet K-5 Math Teaching Resources – 2D Shapes Book K-5 Math Teaching Resources – Putting Shapes Together
<u>Lesson 12.3</u> 1.G.2	K-5 Math Teaching Resources – Pattern Block Triangles K-5 Math Teaching Resources – Tangram Squares Georgia Standards Frameworks – Unit 6 Lessons
<u>Lesson 12.4</u> 1.G.2	Learn Zillion – Sort Shapes by Attributes
<u>Lesson 12.5</u> 1.G.2	<u>Partitioning Shapes into Halves and Fourths</u> Education Place - Equal Parts - Student Tutorial Georgia Standards Frameworks – Unit 6 Lessons Learn Zillion – Partitioning Shapes into Fourths
<u>Lesson 12.6</u> 1.G.2	
<u>Lesson 12.7</u> 1.G.2	<u>Use 2-Dimensional Shapes to Create Composite Shapes</u> PBS Kids - Sid the Science Kid - Game NLVM - Tangrams - Interactive Applet Georgia Standards Frameworks – Unit 6 Lessons
<u>Lesson 12.8</u> 1.G.3	
<u>Lesson 12.9</u> 1.G.3	<u>GSD Additional Teacher Resources</u> Math Investigation Centers – Units 11 and 12
<u>Lesson 12.10</u> 1.G.3	

Unit of Study 12 - Additional Resources - Continued

Literature

- Circus Shapes by Stuart J. Murphy
- Grandfather Tang's Story by Ann Tompert
- I See Shapes by Marcia Fries
- Icky Bug Shapes by Jerry Pallotta
- Mouse Shapes by Ellen Stoll Walsh
- Mummy Math: An Adventure in Geometry by Cindy Neuschwander
- The Secret Birthday Message by Eric Carle
- Shape Space by Cathryn Falwell
- Shape Spotters by Megan E. Bryant
- Shapes, Shapes, Shapes by Tana Hoban
- The Silly Story of Goldie Locks and Three Squares by Grace Maccarone
- Three Pigs, One Wolf, and Seven Magic Shapes by Grace Maccarone
- When a Line Bends... a Shape Begins by Rhonda Greene

Assessment Options

- **Go Math! Assessment Options:** Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 12 Review/Test; Chapter 12 Test; Diagnostic Interview Assessment; Performance Assessment Chapters 11-12; 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](#)