1st Grade

Utah Core State Standards

Mathematics Curriculum Map

Garfield County

School District

Striving toward greater focus and coherence through

Content Standards and Practice Standards

How to Read the Grade Level Content Standards

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

Clusters are groups of related standards. Note that standards from different clusters may sometimes be closely related, because mathematics is a connected subject.

Domains are larger groups of related standards. Standards from different domains may sometimes be closely related.

Domain

Number and Operations in Base Ten 3.NBT

Use place value understanding and properties of operations to perform multi-digit arithmetic.

Standard

1. Use place value understanding to round whole numbers to the nearest 10 or 100.
2. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.
3. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations.

Cluster

Standards for Mathematical Practice

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

1. Make sense of problems and persevere in solving them.

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2. Reason abstractly and quantitatively.

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4. Model with mathematics.

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5. Use appropriate tools strategically.

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision.

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7. Look for and make use of structure.

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as $2 + 7$. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8. Look for and express regularity in repeated reasoning.

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation $(y - 2)/(x - 1) = 3$. Noticing the regularity in the way terms cancel when expanding $(x - 1)(x + 1)$, $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

1st Grade Mathematics Curriculum Map
Garfield County School District Scope and Sequence Overview

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

1st Grade
Instruction and Assessment* Schedule
2013-2014

It is expected that the chapters will be taught consecutively. The table below reflects which chapters are assessed on each benchmark. It is possible to begin a new chapter prior to the quarter in which it is being assessed.

Approx. Number of Days of Instruction	Benchmark A Pretest 8/21 – 9/13	11	12	15	Benchmark A Posttest 10/21 – 11/15	Benchmark B Pretest 10/21 – 11/15	9	13	13	Benchmark B Posttest 1/6 – 1/31	Benchmark C Pretest 1/6 – 1/31	8	12	12	Benchmark C Posttest 3/17 – 4/18	Benchmark D Pretest 3/17 – 4/18	10	8	13	Benchmark D Posttest 5/12 – 5/30	End of Year
Instructional Content		Chapter 1	Chapter 2	Chapter 3			Chapter 4	Chapter 5	Chapter 6			Chapter 7	Chapter 8	Chapter 9			Chapter 10	Chapter 11	Chapter 12		Getting Ready for Gr. 2 Chapter
Assessment		Ch. 1 Test	Ch. 2 Test	Ch. 3 Test			Ch. 4 Test	Ch. 5 Test	Ch. 6 Test			Ch. 7 Test	Ch. 8 Test	Ch. 9 Test			Ch. 10 Test	Ch. 11 Test	Ch. 12 Test		

*Benchmark Tests are required by GCSD. Additional assessment options are on each chapter in the GCSD maps.

1st Grade Mathematics Curriculum Map - Overview

Lesson Plan Format: http://www.graniteschools.org/depart/teachinglearning/curriculuminstruction/math/Documents/3-Tier%20Model%20Elementary%20Lesson%20Plan%20Format.pdf

Lesson Plan Format with Go Math! References: http://www.graniteschools.org/depart/teachinglearning/curriculuminstruction/math/Documents/3-Tier%20Model%20Elementary%20Lesson%20Plan%20Format.pdf

Chapter	The mathematical content is sequenced in chapters that will take approximately 2-3 weeks each to teach. The sequence of chapters provides a coherent flow to mathematics instruction throughout the year.
Go Math! Alignment	The primary textbook adopted in Garfield County School District for Grades K-6 is Houghton Mifflin Harcourt's Go Math!, 2012 Edition.
Math Content and Language Objectives	The Math Content 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.
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/depart/teachinglearning/curriculuminstruction/math/Pages/MathematicsVocabulary.aspx
Teacher's Resources and Notes	Teachers are encouraged to make notes of their own lesson ideas and resources that align with each Unit of Study.
Additional Resources	Each elementary school has a copy of Elementary and Middle School Mathematics, 7th Edition, by John A. Van de Walle. This book is intended to be a resource for mathematical content and instructional strategy suggestions. The websites are a resource for lesson plans, teacher tutorials, content videos, student applets, and games. The 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: 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; Soar to Success; and, Standards Practice Pages. The assessments are intended to be used 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. Benchmark Assessments on Acuity – These are cumulative tests for multiple Units of Study. These are to be given as a pretest and a posttest. Scores from the Benchmark Assessments are to be reported to the district. 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.

Addition Concepts Chapter 1	1st Grade	Quarter 1	Approx. 11 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Represent and solve problems involving addition and subtraction.

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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]

[2]See Glossary, Table 1.

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

3. Apply properties of operations as strategies to add and subtract.[3] *Examples: 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.)*

[3]Students need not use formal terms for these properties.

Cluster: Add and subtract within 20.

6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.OA.1</u> 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.	add addend Additive Identity Property of 0 bar model Commutative Property of Addition count on date day equal equation expression	

Chap 1 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
<u>1.OA.3</u> 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. <u>1.OA.6</u> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. Key Concepts for Differentiation - See p. 8.	making ten order plus sum zero	
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.		

Chap 1 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
Reading Standards for Informational Text (cont.) 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.		

Go Math! Common Core Alignment	Chap 1 Addition Concepts – Additional Resources
Lesson 1.1 1.OA.1 Lesson 1.2 1.OA.1 Lesson 1.3 1.OA.1 Lesson 1.4 1.OA.1 Lesson 1.5 1.OA.3 Lesson 1.6 1.OA.3 Lesson 1.7 1.OA.1 Lesson 1.8 1.OA.6	Addition Within Ten VDW 7th Edition - pages 128-129; 132-140; 145-151; 168; 170-175 Sheppard Software - Bugabaloo - Game - http://www.sheppardsoftware.com/mathgames/earlymath/bugabalooShoes.htm HMH School Publishers - Busy Bees - Game - http://www.hbschool.com/activity/busy_bees/index.html Fun School Carnival Math - Go-Go Go-Karts - Game - http://funschool.kaboose.com/formula-fusion/carnival/games/game_go-go_go-karts.html Ambleside Primary - Number Bond Machines - Interactive Applet - http://www.amblesideprimary.com/ambleweb/mentalmaths/numberbond.html Education Place - Find a Friend - Game - http://www.eduplace.com/kids/hmm/swfs/faf_grade1.html HMH School Publishers - Great Day for Number Lines - Interactive Applet - http://www.harcourtschool.com/activity/numberline1_5_04/ NLVM - Base Blocks Addition - Interactive Applet - http://nlvm.usu.edu/en/nav/frames_asid_154_g_1_t_1.html Cookie - Add Numbers - Interactive Applet - http://www.cookie.com/kids/games/add-numbers.html PBS Kids - Curious George's Busy Day - Museum of Tens Game - http://pbskids.org/curiousgeorge/busyday/ten/ Ambleside Primary School - Number Bonds Machine - Practice - http://www.amblesideprimary.com/ambleweb/mentalmaths/numberbond.html Education Place - Using Symbols to Add - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=2&lesson=3&title=Use+Symbols+to+Add&tm=tmfb0203e Education Place - Addition Facts Through Ten - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Addition+Facts+Through+10&tm=tmfa0115e HMH School Publishers - Adding Bricks - Game - http://www.harcourtschool.com/activity/adding_bricks_k/ Education Place - eManipulative Number Line - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=nmbl_prim&title=Number%20Line&grade=K Education Place - eManipulatives Counters - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=1cc_prim&title=Counters&grade=K Education Place - eManipulatives Connecting Cubes - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=connectingcubes&title=Connecting%20Cubes&grade=K Illuminations - "Finding Addition Patterns" Lesson - http://illuminations.nctm.org/LessonDetail.aspx?ID=L97 UEN - "Double Those Ducks!" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=21396 UEN - "Add a Quack, Quack Here" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=16221 UEN - "Add It Up" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=14355

	Chap 1 Addition Concepts– Additional Resources - Continued
	<u>Properties</u> VDW 7th Edition - pages 153-154; 171 Learnthings - Commutative Property - Student Tutorial - http://www.ngfl-cymru.org.uk/vtc/count_on_me/eng/Introduction/starteractivity.htm Learnthings - Same or Different (Commutative Property) - Interactive Applet - http://www.ngfl-cymru.org.uk/vtc/count_on_me/eng/Introduction/mainsessionpart1.htm <u>Ordinal Numbers 1st - 12th</u> Education Place - Ordinal Numbers - Student Tutorial - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/help/eh_popup.thtml&grade=1&chapter=11&lesson=2&title=Ordinal+Numbers&tm=tmfb1102e ABC - Count Us In - Game 4 - http://www.abc.net.au/countusin/games/game4.htm YouTube - Learn and Practice Ordinal Numbers - Video - http://www.youtube.com/watch?v=eGivAwgIlTU UEN - "Who's On First?" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=21353 YouTube - Ordinal Numbers - Video - http://www.youtube.com/watch?v=fR8KyCt5XtA&feature=related <u>Calendar</u> HMH School Publishers - Days of Fun - Interactive Applet - http://www.harcourtschool.com/activity/days_of_fun/ Softschools - Calendar Quiz - Assessment - http://www.softschools.com/math/calendar/activities/calendar_game/ Beacon Learning Center - It's a Date! - Interactive Applet - http://www.beaconlearningcenter.com/WebLessons/ItsADate/default.htm#page2 UEN - "A Chick Called Saturday" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10690 <u>Seasons</u> UEN - "Exploring the Seasons" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=21402 UEN - "Five Senses and Four Seasons Quilt" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10664 UEN - "Seasons" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10661

	Chap 1 Addition Concepts- 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 is 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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Subtraction Concepts Chapter 2	1st Grade	Quarter 1	Approx. 12 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Represent and solve problems involving addition and subtraction.

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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]

[2]See Glossary, Table 1.

Cluster: Add and subtract within 20.

6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Cluster: Work with addition and subtraction equations.

8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.*

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.OA.1</u> 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. <u>1.OA.6</u> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10.	bar model compare difference equal equation expression fewer minus more subtract take away	

Chap 2 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
1.OA.8 Find a missing number in an addition problem. Find a missing number in a subtraction problem. Key Concepts for Differentiation - See p. 8.		
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.		

Chap 2 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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.		

Go Math! Common Core Alignment	Chap 2 Subtraction Concepts – Additional Resources
Lesson 2.1 1.OA.1 Lesson 2.2 1.OA.1 Lesson 2.3 1.OA.1 Lesson 2.4 1.OA.1 Lesson 2.5 1.OA.8 Lesson 2.6 1.OA.1 Lesson 2.7 1.OA.8 Lesson 2.8 1.OA.1 Lesson 2.9 1.OA.6	Subtraction Within Ten VDW 7th Edition - pages 149; 151-153 Education Place - Subtract in Vertical Form - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=3&lesson=7&title=Subtract+in+Vertical+Form&tm=tmfb0307e BBC - The Little Animals Activity Centre - Game - http://www.bbc.co.uk/schools/laac/numbers/ch2.shtml Sheppard Software - Matching Subtraction - Interactive Applet - http://www.sheppardsoftware.com/mathgames/matching/matching_subtraction.htm Cookie - Mission Subtraction - Game - http://www.cookie.com/preschool/games/mission-subtraction.html Toy Theater - Bug Catcher - Game - http://toytheater.com/bug-catcher.php Education Place - Subtraction Facts Through 10 - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Subtraction+Facts+Through+10&tm=tmfa0116e Education Place - eManipulatives Connecting Cubes - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=connectingcubes&title=Connecting%20Cubes&grade=K UEN - “Addition and Subtraction in Center Time” Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=14164

	Chap 2 Subtraction Concepts- Additional Resources - Continued
	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
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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Addition Strategies Chapter 3	1st Grade	Quarter 1	Approx. 15 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Represent and solve problems involving addition and subtraction.

2. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

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

3. Apply properties of operations as strategies to add and subtract.[3] *Examples: 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.)*

[3]Students need not use formal terms for these properties.

Cluster: Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.OA.2</u> Solve word problems by adding three numbers. <u>1.OA.3</u> 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.	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	

Chap 3 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
<u>1.OA.5</u> Use counting strategies to add. Use counting strategies to subtract. <u>1.OA.6</u> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. Key Concepts for Differentiation - See p. 8.		
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.		

Chap 3 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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.		

Go Math! Common Core Alignment	Chap 3 Addition Strategies – Additional Resources
Lesson 3.1 1.OA.3 Lesson 3.2 1.OA.5 Lesson 3.3 1.OA.6 Lesson 3.4 1.OA.6 Lesson 3.5 1.OA.6 Lesson 3.6 1.OA.6 Lesson 3.7 1.OA.6 Lesson 3.8 1.OA.6 Lesson 3.9 1.OA.6 Lesson 3.10 1.OA.3 Lesson 3.11 1.OA.3 Lesson 3.12 1.OA.2	Addition Strategies Within 20 VDW 7th Edition - pages 128-129; 132-140; 145-151; 168; 170-175 Cookie - Mission Addition - Interactive Applet - http://www.cookie.com/preschool/games/mission-addition.html Education Place - Make a Ten to Add - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=19&lesson=3&title=Make+a+Ten+to+Add&tm=tmfb1903e Education Place - Make 10 to Add - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=2&lesson=5&title=Make+10+to+Add&tm=tmfc0205e Education Place - Add Three Numbers - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=15&lesson=6&title=Add+Three+Numbers&tm=tmfb1506e Education Place - eManipulatives Addition Table - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=tables_add&title=Addition%20Table&grade=1 Education Place - Using Doubles to Add - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=5&lesson=3&title=Use+Doubles+to+Add&tm=tmfb0503e Education Place - Rock Hopper - Game - http://www.eduplace.com/kids/hmm/swfs/rockhopper_grade1.html ABC - Count Us In - Game 1 - http://www.abc.net.au/countusin/games/game1.htm Toy Theater - Addition Pull - Game - http://toytheater.com/addition-pull.php Toy Theater - Addition Bingo - Game - http://toytheater.com/bingo.php Dositey - Adding Three Numbers - Game - http://www.dositey.com/addsub/mystery1AA.htm HMH School Publishers - Addition Surprise - Game - http://www.harcourtschool.com/activity/add/add.html Properties VDW 7th Edition - pages 153-154; 171 Purplemath - Basic Number Properties - Teacher Tutorial - http://www.purplemath.com/modules/numbprop.htm Ohio Department of Education - “Commutative Property - Grade One” Lesson - http://ims.ode.state.oh.us/ODE/IMS/Lessons/Content/CMA_LP_S04_BE_L01_I04_01.pdf

	Chap 3 Addition Strategies- Additional Resources - Continued
	Literature Double the Ducks by Stuart J. Murphy Help Me Learn Addition by Jean Marzollo Twelve Ways to Get to 11 by Eve Merriam
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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Subtraction Strategies Chap 4	1st Grade	Quarter 2	Approx. 9 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Represent and solve problems involving addition and subtraction.

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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]

[2]See Glossary, Table 1.

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

4. Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*

Cluster: Add and subtract within 20.

5. Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.OA.1</u> 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. <u>1.OA.4</u> Use addition to solve subtraction problems.	add addend count back count up decompose difference equal equation expression making ten minus plus subtract sum take away	

Chap 4 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
<u>1.OA.5</u> Use counting strategies to add. Use counting strategies to subtract. <u>1.OA.6</u> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. Key Concepts for Differentiation - See p. 8.		
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.		

Chap 4 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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.		

Go Math! Common Core Alignment	Chap 4 Subtraction Strategies– Additional Resources
Lesson 4.1 1.OA.5 Lesson 4.2 1.OA.4 Lesson 4.3 1.OA.4 Lesson 4.4 1.OA.6 Lesson 4.5 1.OA.6 Lesson 4.6 1.OA.1	Subtraction Strategies Within 20 VDW 7th Edition - pages 149; 151-153; 175-177 Education Place - Subtract in Vertical Form - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=3&lesson=7&title=Subtract+in+Vertical+Form&tm=tmfb0307e Education Place - Use Addition to Subtract - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=3&lesson=4&title=Use+Addition+to+Subtract&tm=tmfc0304e Education Place - Count Back to Subtract - Assessment - http://www.eduplace.com/kids/hmm/practice/quiz.html?qzid=hmm07_ep/gr1/0601&qseq=5,8,7,10,6,2,9,0,11,4&at=0&curq=0&score=0&UNIT=2 Toy Theater - Subtraction Bingo - Game - http://toytheater.com/bingo.php NGFL - Count on Me Quiz - Game - http://www.ngfl-cymru.org.uk/vtc/count_on_me/eng/Introduction/mainsessionpart2.htm UEN - “Add a Quack, Quack Here” Lesson - http://www.uen.org/Lessonplan/preview?LPid=16221

	Chap 4 Subtraction Strategies- Additional Resources - Continued
	Literature Elevator Magic by Stuart J. Murphy Ready, Set , Hope by Stuart J. Murphy
Assessment Options	**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.

Addition and Subtraction Relationships Chap 5	1st Grade	Quarter 2	Approx. 13 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Represent and solve problems involving addition and subtraction.

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, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.[2]

[2]See Glossary, Table 1.

Cluster: Add and subtract within 20.

6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Cluster: Work with addition and subtraction equations.

7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *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.*

8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.*

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.OA.1</u> 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. <u>1.OA.6</u> Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10.	add addend bar model Commutative Property of Addition difference equal equal sign equation expression fact family false minus plus related facts	

Chap 5 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
<u>1.OA.7</u> Understand what an equal sign means. Tell if an equation is true or false. <u>1.OA.8</u> Find a missing number in an addition problem. Find a missing number in a subtraction problem. Key Concepts for Differentiation - See p. 8. **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.	is the same as subtract sum take away true	

Chap 5 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
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.		

Go Math! Common Core Alignment	Chap 5 Addition and Subtraction Relationships– Additional Resources
Lesson 5.1 1.OA.1 Lesson 5.2 1.OA.6 Lesson 5.3 1.OA.6 Lesson 5.4 1.OA.6 Lesson 5.5 1.OA.8 Lesson 5.6 1.OA.8 Lesson 5.7 1.OA.1 Lesson 5.8 1.OA.6 Lesson 5.9 1.OA.7 Lesson 5.10 1.OA.6	Related Facts/ Fact Family VDW 7th Edition - pages 26-27; 134-136; 151-152; 175; 204-207 Education Place - Relate Addition and Subtraction - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=16&lesson=4&title=Relate+Addition+and+Subtraction&tm=tmfb1604e Education Place - Fact Families - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=20&lesson=6&title=Fact+Families&tm=tmfb2006e Education Place - Fact Families - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=6&lesson=5&title=Fact+Families&tm=tmfb0605e Sadlier-Oxford - More Fact Families - Interactive Applet - http://www.sadlier-oxford.com/math/enrichment/gr1/ch6/0106b.htm The School Bell - "Number Family Booklets" Lesson - http://www.theschoolbell.com/Links/math/number_families/main/circle_mats.html IXL - Addition: Related Addition Facts - Assessment - http://www.ixl.com/math/grade-1/related-addition-facts UEN - "A Family of Facts" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=21441 Basic Addition and Subtraction Facts to 20 VDW 7th Edition - pages 167-177 Sheppard Software - Matching Addition - Game - http://www.sheppardsoftware.com/mathgames/matching/matching_addition.htm Oswego - Sum Sense - Game - http://www.oswego.org/ocsd-web/games/SumSense/sumadd.html Education Place - Extra Practice - Part/Part/Whole Model - http://www.eduplace.com/kids/hmm/practice/quiz.html?qzid=hmm07_ep/gr1/0607&qseq=7,6,5,0,10,9,2,11,3,8&at=0&fb=tr&score=20&curq=2&UNIT=2 EM Games - Addition and Subtraction Trains - Game - http://media.emgames.com/emgames/demosite/playdemo.html?activity=M1A041&activitytype=dcr ICT Games - The Adding 9 Fairy - Game - http://www.ictgames.com/fairy2.html ICT Games - Special Space Jumps - Game - http://www.ictgames.com/spacejumps.html HMH School Publishers - Flower Power - Interactive Applet - http://www.harcourtschool.com/activity/flower_power/ Funschool - Paint Brush Math - Interactive Applet - http://funschool.kaboose.com/formula-fusion/games/game_paint_brush_math.html?g=ag1_ds2 Oswego - Are You a Math Magician? - Interactive Applet - http://oswego.org/ocsd-web/games/mathmagician/maths1.html HMH School Publishers - Seashell Search - Interactive Applet - http://www.harcourtschool.com/activity/seashell_search/index.html ABC - Count Us In - Game 8 - http://www.abc.net.au/countusin/games/game8.htm Pearson - Number Jungle - Game - http://www.pearsonschool.com/live/images/custom/envisionmath_ca/games/monkey.html Sheppard Software - Subtraction Harvest - Game - http://www.sheppardsoftware.com/mathgames/earlymath/subHarvest.htm

	Chap 5 Addition and Subtraction Relationships - Additional Resources - Continued
	Equal Sign/Balanced Expressions VDW 7th Edition - pages 258-262 PBS Kids Cyberchase - Poodles Weigh In - Game - http://pbskids.org/cyberchase/math-games/poddle-weigh-in/ Illuminations - "Comparing Connecting Cubes" Lesson - http://illuminations.nctm.org/LessonDetail.aspx?ID=L40 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; Soar to Success; Performance Assessment Chapters 1-5; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Count and Model Numbers Chap 6	1st Grade	Quarter 2	Approx. 13 days	GCSD Revised 5/30/14

Domain: Number and Operations in Base Ten 1.NBT

Cluster: 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	Teacher's Resources and Notes
I can: 1.NBT.1 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. 1.NBT.2a Understand a group of ten ones is the same as ten. 1.NBT.2b Understand that numbers 11-19 are a group of ten and more ones. 1.NBT.2c Understand numbers 10, 20, 30, 40, 50, 60, 70, 80, and 90 are groups of ten and zero ones.	column digit equal expression hundred number numeral object ones place value row ten tens zero	

Chap 6 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
1.NBT.3 Use >, =, and < to compare 2 two-digit numbers. Key Concepts for Differentiation - See p. 8. **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.		

Chap 6 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
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.		

Go Math! Common Core Alignment	Chap 6 Count and Model Numbers– Additional Resources
Lesson 6.1 1.NBT.1 Lesson 6.2 1.NBT.1 Lesson 6.3 1.NBT.2b Lesson 6.4 1.NBT.2b Lesson 6.5 1.NBT.2a; 1.NBT.2c Lesson 6.6 1.NBT.2 Lesson 6.7 1.NBT.2 Lesson 6.8 1.NBT.21; 1.NBT.3 Lesson 6.9 1.NBT.1 Lesson 6.10 1.NBT.1	Grouping Ones to Form Tens VDW 7th Edition - pages 190-195 Education Place - Tens and Ones - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=10&lesson=2&title=Tens+and+Ones&tm=tmfb1002e Dositey - "Ones and Tens Place Value" Lesson - http://www.dositey.com/2008/Products/Content/Include/PVOTH/1/1/launch.php Tens and Ones to 120 VDW 7th Edition - pages 138-139; 189-190 ICT Games - Lifeguards - Game - http://www.ictgames.com/LIFEGUARDS.html HMH School Publishers - Count Along to 100 - Interactive Applet - http://www.harcourtschool.com/activity/count/index.html Education Place - Identify Place Value - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=5&lesson=3&title=Identify+Place+Value&tm=tmfc0503e Education Place - eManipulatives Base 10 Blocks - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=b10b_prim&title=Base%20Ten%20Blocks&grade=1 ICT Games - Shark Numbers - Game - http://www.ictgames.com/sharkNumbers_v2.html

	Chap 6 Count and Model Numbers– Additional Resources
	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
Assessment Options	**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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Compare Numbers Chap 7	1st Grade	Quarter 3	Approx. 8 days	GCSD Revised 5/30/14

Domain: Number and Operations in Base Ten 1.NBT

Cluster: 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 <.

Cluster: 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	Teacher's Resources and Notes
I can: 1.NBT.3 Use >, =, and < to compare 2 two-digit numbers. 1.NBT.5 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. Key Concepts for Differentiation - See p. 8. **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.	add compare difference digit equal greater than less than more than ones place value subtract sum ten tens	

Chap 7 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
Reading Standards for Informational Text (cont.) 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.		

Go Math! Common Core Alignment	Chap 7 Compare Numbers – Additional Resources
<u>Lesson 7.1</u> 1.NBT.3 <u>Lesson 7.2</u> 1.NBT.3 <u>Lesson 7.3</u> 1.NBT.3 <u>Lesson 7.4</u> 1.NBT.3 <u>Lesson 7.5</u> 1.NBT.5	<u>Comparing 2-Digit Numbers</u> VDW 7th Edition - pages 126-127 Education Place - Comparing Numbers - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=1&lesson=3&title=Comparing+Numbers&tm=tmfc0103e Crickweb - Compare Numbers - Interactive Applet - http://www.crickweb.co.uk/ks2numeracy-calculation.html#ncmenu Ambleside Primary - Counter Square - Model - http://www.amblesideprimary.com/ambleweb/mentalmaths/countersquare.html Topmarks - Caterpillar Ordering - Game - http://www.topmarks.co.uk/Flash.aspx?f=CaterpillarOrderingv4 UEN - "Bear Time" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=21444 <u>Ten More/Ten Less Than a Number</u> ICT Games - 10 Less Shoot Out - Game - http://www.ictgames.com/football2.html

	Chap 7 Compare Numbers – Additional Resources
	Literature More or Less by Stuart 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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Two-Digit Addition and Subtraction Chap 8	1st Grade	Quarter 3	Approx. 12 days	GCSD Revised 5/30/14

Domain: Operations and Algebraic Thinking 1.OA

Cluster: Add and subtract within 20.

6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).

Domain: Number and Operations in Base Ten 1.NBT

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

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 and tens, ones and ones; and sometimes it is necessary to compose a ten.
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.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: 1.OA.6 Add numbers within 20. Subtract numbers within 20. Fluently add numbers within 10. Fluently subtract numbers within 10. 1.NBT.4 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.	add addend count on difference digit equation expression making ten ones place value subtract sum tens	

Chap 8 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
<u>1.NBT.6</u> Use models to subtract groups of 10 from other groups of 10. Explain how to subtract groups of 10 from other groups of 10. Key Concepts for Differentiation - See p. 8. **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 text.		

Chap 8 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
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.		

Go Math! Common Core Alignment	Chap 8 Two-Digit Addition and Subtraction– Additional Resources
Lesson 8.1 1.OA.6 Lesson 8.2 1.NBT.4 Lesson 8.3 1.NBT.6 Lesson 8.4 1.NBT.4 Lesson 8.5 1.NBT.4 Lesson 8.6 1.NBT.4 Lesson 8.7 1.NBT.4 Lesson 8.8 1.NBT.4 Lesson 8.9 1.NBT.4; 1.NBT.6	Add and Subtract - Basic Facts Within 20 VDW 7th Edition - pages 167-177 Place Value (Tens and Ones) VDW 7th Edition - 189-190 Education Place - Identify Place Value - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=5&lesson=3&title=Identify+Place+Value&tm=tmfc0503e Education Place - eManipulatives Base 10 Blocks - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=b10b_prim&title=Base%20Ten%20Blocks&grade=1 Education Place - Regroup Tens - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=12&lesson=3&title=Regroup+Tens&tm=tmfc1203e Education Place - Regroup Ones as Tens - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=2&chapter=10&lesson=3&title=Regroup+Ones+as+Tens&tm=tmfc1003e HMH School Publishers - Numbers to 100 in Different Ways - Interactive Applet - http://www.harcourtschool.com/activity/numbers_to_100_b/ Two-Digit Addition and Subtraction VDW 7th Edition - 214-226 ICT Games - Submarine - Game - http://www.ictgames.com/submarinenopad2.html ICT Games - Adding 10 Depthcharger - Game - http://www.ictgames.com/add10Depth/index.html Education Place - Add with Two-Digit Numbers - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=21&lesson=2&title=Add+With+Two-Digit+Numbers&tm=tmfb2102e Thinking Blocks - Addition and Subtraction Word Problems - Bar Model - http://www.thinkingblocks.com/ThinkingBlocks_AS/TB_AS_Main.html

Assessment Options	**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; Soar to Success; Performance Assessment Chapters 6-8; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Measurement Chap 9	1st Grade	Quarter 3	Approx. 12 days	GCSD Revised 5/30/14

Domain: Measurement and Data 1.MD

Cluster: Measure lengths indirectly and by iterating length units.

1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.
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. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*

Cluster: Tell and write time.

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

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: 1.MD.1 Compare and order objects by length. 1.MD.2 Measure length using units. 1.MD.3 Tell time to the hour. Tell time to the half-hour. Tell time using analog or digital clocks. Key Concepts for Differentiation - See p. 8. **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.	analog clock compare digital clock half hour half past hour hour hand length longer longest measure minute hand minute object shorter shortest taller tallest unit	

Chap 9 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
Reading Standards for Informational Text (cont.) 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.		

Go Math! Common Core Alignment	Chap 9 Measurement – Additional Resources
Lesson 9.1 1.MD.1 Lesson 9.2 1.MD.1 Lesson 9.3 1.MD.2 Lesson 9.4 1.MD.2 Lesson 9.5 1.MD.2 Lesson 9.6 1.MD.3 Lesson 9.7 1.MD.3 Lesson 9.8 1.MD.3 Lesson 9.9 1.MD.3	Measuring and Comparing Length Using Nonstandard Units VDW 7th Edition - pages 373-376 Education Place - Compare, Order, and Measure Length - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Compare,+Order,+and+Measure+Length&tm=tmfa0113e PBS Kids - Clifford Measuring Up - Game - http://pbskids.org/clifford/games/measuring_up.html PBS Kids - Curious George How Tall? - Game - http://pbskids.org/curiousgeorge/games/how_tall/how_tall.html UEN - "How Big is a Foot?" Lesson - http://www.uen.org/Lessonplan/preview?LPid=10729 UEN - "Lengths of Ladybugs" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=16226 UEN - "The Length of My Foot" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=16225 UEN - "A King's Foot is Always Best" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=28140 Time (Hours and Half Hours) VDW 7th Edition - pages 382-384 PBS Kids - Curious George - Curious Clock Printable - http://pbskids.org/curiousgeorge/printables/clock.html HMH School Publishers - Willy the Watchdog - Game - http://www.harcourtschool.com/activity/willy/willy.html Education Place - Tell Time to the Hour - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Tell+Time+to+the+Hour&tm=tmfa0111e Cambridge - Cambridge Clock - Interactive Applet - http://www.cambridge.org/elt/resources/young/interactive/clock/index.htm Education Place - Half-Hour - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=13&lesson=4&title=Half+Hour&tm=tmfb1304e

	Chap 9 Measurement- Additional Resources - Continued
	Literature Bats Around the Clock by Kathi Appelt 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 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 Pig Pigger Piggest by Rick Walton 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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Represent Data Chap 10	1st Grade	Quarter 4	Approx. 10 days	GCSD Revised 5/30/14
Domain: Measurement and Data				1.MD

Cluster: 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	Teacher's Resources and Notes
I can: <u>1.MD.4</u> Make a graph to show data. Answer questions about the groups of data. Key Concepts for Differentiation - See p. 8.	bar graph category compare data equal fewer fewest greater than less than more most picture graph tally chart tally mark	

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 text.

Chap 10 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
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.		

Go Math! Common Core Alignment	Chap 10 Represent Data – Additional Resources
Lesson 10.1 1.MD.4 Lesson 10.2 1.MD.4 Lesson 10.3 1.MD.4 Lesson 10.4 1.MD.4 Lesson 10.5 1.MD.4 Lesson 10.6 1.MD.4 Lesson 10.7 1.MD.4	Bar Graphs and Picture Graphs VDW 7th Edition - pages 443-444 Teachers.net - Math Graph Center - Centers - http://teachers.net/lessons/posts/2098.html UEN - "Graphing It Daily" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=18798 UEN - "Just Graph It!" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=18799 UEN - "Daily Graph" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10696 Tally Charts VDW 7th Edition - pages 443-444

	Chap 10 Represent Data- Additional Resources - Continued
	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
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; Soar to Success; Performance Assessment Chapters 9-10; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Three-Dimensional Shapes Chap 11	1st Grade	Quarter 4	Approx. 8 days	GCSD Revised 5/30/14

Domain: Geometry 1.G

Cluster: Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or 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.[4]

[4]Students do not need to learn formal names such as "right rectangular prism."

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.G.1</u> 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 <u>1.G.2</u> Make a new shape by combining other shapes. Key Concepts for Differentiation - See p. 8. **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.	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	

Chap 11 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
Reading Standards for Informational Text (cont.) 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.		

Go Math! Common Core Alignment	Chap 11 Three-Dimensional Geometry – Additional Resources
Lesson 11.1 1.G.1 Lesson 11.2 1.G.2 Lesson 11.3 1.G.2 Lesson 11.4 1.G.2 Lesson 11.5 1.G.1	3-Dimensional Shapes (Cubes, Right Rectangular Prisms, Cones, Cylinders) VDW 7th Edition - pages 406-409; 412-413 Education Place - Identify and Sort Solid Shapes - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Identify+and+Sort+Solid+Shapes&tm=tmfa0109e Math Learning Center - "Geometry: 3-D Shapes" Lesson - http://www.mathlearningcenter.org/media/Bridges_GrK_OnlineSupplement/BKSUP-C1_Geometry3D_0709.pdf HMH School Publishers - Solid Figure Factory - Interactive Applet - http://www.harcourtschool.com/activity/solid_figure_factory/ McRel - "Shapes, Shapes, Everywhere!" Unit - http://www.mcrel.org/pdf/curriculum/5021cm_shapes.pdf

	Chap 11 Three-Dimensional Geometry – Additional Resources
	Literature Captain Invincible and the Space Shapes by Stuart J. Murphy Cubes, Cones, Cylinders, & Spheres by Tana Hoban The Important Book by Margaret Brown Jack the Builder by Stuart J. Murphy
Assessment Options	**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; Soar to Success; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Two-Dimensional Shapes Chap 12	1st Grade	Quarter 4	Approx. 13 days	GCSD Revised 5/30/14

Domain: Geometry 1.G

Cluster: Reason with shapes and their attributes.

1. Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.
2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or 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.[4]

[4]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 for these examples that decomposing into more equal shares creates smaller shares.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: <u>1.G.1</u> 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 <u>1.G.2</u> Make a new shape by combining other shapes.	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	

Chap 12 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
1.G.3 - 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. - Key Concepts for Differentiation - See p. 8. **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 text.	side sort square trapezoid triangle unequal parts unequal shares vertex (plural - vertices) whole	

Chap 12 (continued)

Math Language Objectives	Vocabulary	Teacher's Resources and Notes
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.		

Go Math! Common Core Alignment	Chap 12 Two-Dimensional Geometry– Additional Resources
Lesson 12.1 1.G.1 Lesson 12.2 1.G.1 Lesson 12.3 1.G.2 Lesson 12.4 1.G.2 Lesson 12.5 1.G.2 Lesson 12.6 1.G.2 Lesson 12.7 1.G.2 Lesson 12.8 1.G.3 Lesson 12.9 1.G.3 Lesson 12.10 1.G.3	2-Dimensional Shapes (Rectangles, Squares, Trapezoids, Triangles, Half-Circles, Quarter-Circles) VDW 7th Edition - pages 400-402; 404-405; 410-412 Kiz Club - Shapes - Student Tutorial - http://www.kizclub.com/storytime/shapes/triangle.html Education Place - Plane Shapes - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=7&lesson=2&title=Plane+Shapes&tm=tmfb0702e Story Place - I Spy Shapes - Practice Activity - http://www.storyplace.org/preschool/activities/shapesonact.asp Story Place - Story of Shapes - Online Story - http://www.storyplace.org/preschool/activities/shapesonstory.asp NLVM - Pattern Blocks - Interactive Applet - http://nlvm.usu.edu/en/nav/frames_asid_170_g_2_t_2.html McRel - "Shapes, Shapes, Everywhere!" Unit - http://www.mcrel.org/pdf/curriculum/5021cm_shapes.pdf Partitioning Shapes into Halves and Fourths Education Place - Equal Parts - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup.thtml&grade=1&chapter=9&lesson=1&title=Equal+Parts&tm=tmfb0901e Use 2-Dimensional Shapes to Create Composite Shapes VDW 7th Edition - pages 407-408 PBS Kids - Sid the Science Kid - Game - http://pbskids.org/sid/shadowshow.html NLVM - Tangrams - Interactive Applet - http://nlvm.usu.edu/en/nav/frames_asid_268_g_1_t_3.html?open=activities&from=category_g_1_t_3.html

	Chap 12 Two-Dimensional Geometry– Additional Resources
	Literature Circus Shapes by Stuart J. Murphy Grandfather Tang's Story by AnnTompert 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; Soar to Success; Performance Assessment Chapters 11-12; Standards Practice Pages. **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Appendix

General Website Resources

Common Core Standards - Official Website - www.corestandards.org
USOE - Common Core Links - http://www.schools.utah.gov/core/
Arizona Academic Standards - Common Core Explanations and Examples - http://www.azed.gov/standards-practices/mathematics-standards/
North Carolina Department of Public Instruction - Common Core Instructional Support Tools - http://www.ncpublicschools.org/docs/acre/standards/common-core-tools/unpacking/math/6th.pdf
CORE Academy - http://www.schools.utah.gov/curr/main/Core_Academy.htm
National Library of Virtual Manipulatives (NLVM) - http://nlvm.usu.edu/
Illuminations - http://illuminations.nctm.org/
UEN - http://www.uen.org/
Van de Walle – Blackline Masters - http://wps.ablongman.com/ab_vandewalle_math_6/54/13858/3547876.cw/index.html
Math Playground - http://www.mathplayground.com/
FunBrain - http://www.funbrain.com/
Ask Dr. Math - http://mathforum.org/dr.math/
Math.com - http://www.math.com/
Mathwire - http://mathwire.com/
Education Place - http://eduplace.com/kids/hmm/
PBS Kids - Curious George - http://pbskids.org/curiousgeorge/
K-5 Math Teaching Resources - http://www.k-5mathteachingresources.com/%202nd-grade-number-activities.html
Fuel the Brain - http://www.fuelthebrain.com/Game/
CCSSMath - http://ccssmath.org/

Book

VDW - Van de Walle, John A., Elementary and Middle School Mathematics, 7th Edition, Allyn & Bacon, Boston, 2010. ISBN-13: 978-0-205-57352-3