Kindergarten
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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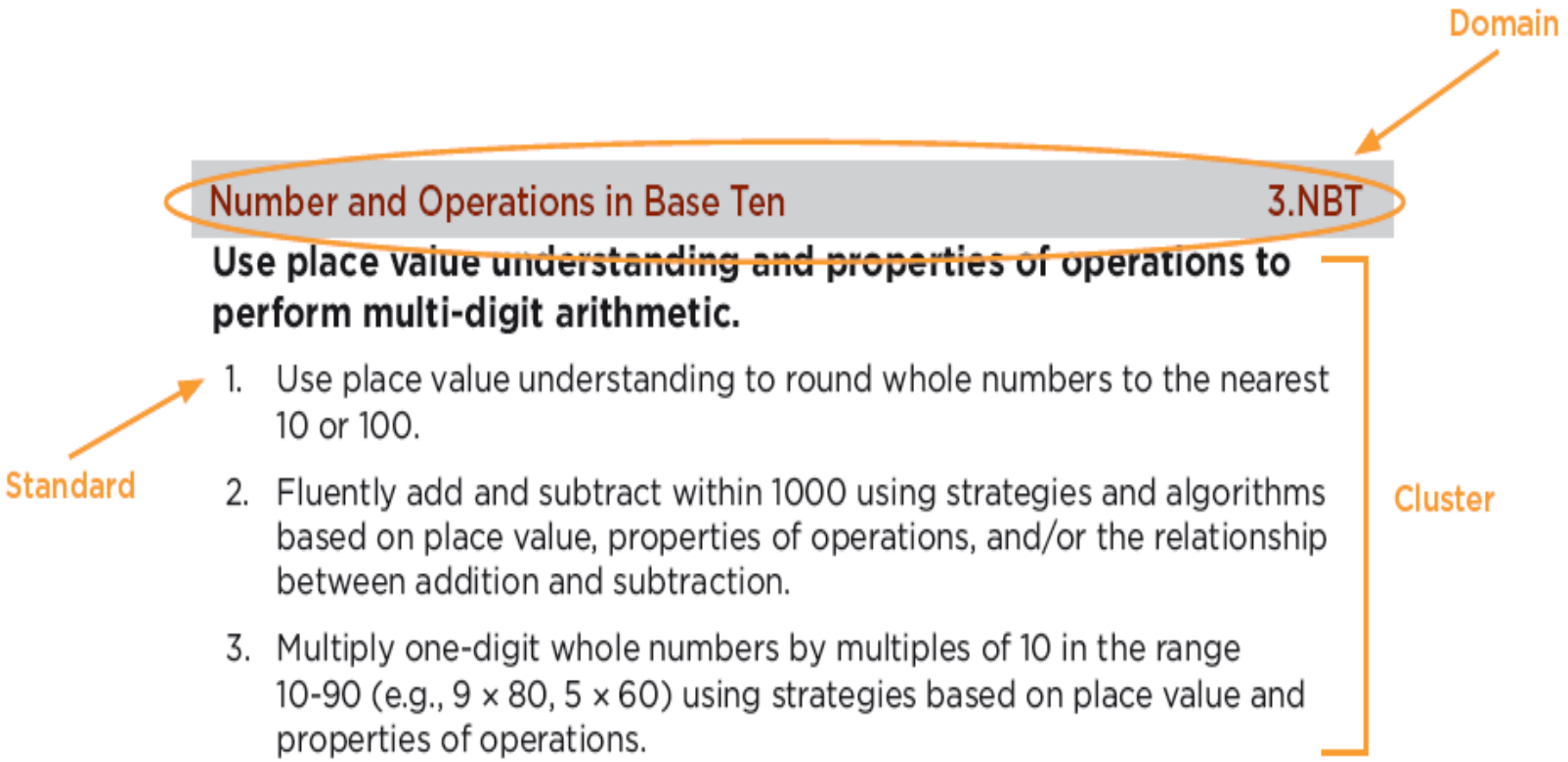
Granite SCHOOL DISTRICT

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.



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.

Kindergarten Mathematics Curriculum Map
Granite School District Scope and Sequence Overview

Unit of Study	Go Math! Alignment	Go Math! Chapter Title	Domain and Standards
1	Chapter 1	Represent, Count, and Write Numbers 0 to 5	Domain: Counting and Cardinality Standards: 3, 4a, 4b, 4c Domain: Operations and Algebraic Thinking Standard: 3
2	Chapter 2	Compare Numbers to 5	Domain: Counting and Cardinality Standard: 6
3	Chapter 3	Represent, Count, and Write Numbers 6 to 9	Domain: Counting and Cardinality Standards: 3, 5, 6
4	Chapter 4	Represent and Compare Numbers to 10	Domain: Counting and Cardinality Standards: 2, 3, 5, 6, 7 Operations and Algebraic Thinking Standard: 4
5	Chapter 5	Addition	Domain: Operations and Algebraic Thinking Standards: 1, 2, 3, 4, 5
6	Chapter 6	Subtraction	Domain: Operations and Algebraic Thinking Standards: 1, 2, 5
7	Chapter 7	Represent, Count, and Write 11 to 19	Domain: Counting and Cardinality Standard: 3 Domain: Number and Operations in Base Ten Standard: 1
8	Chapter 8	Represent, Count, and Write 20 and Beyond	Domain: Counting and Cardinality Standards: 1, 2, 3, 5, 6
9	Chapter 9	Identify and Describe Two-Dimensional Shapes	Domain: Geometry Standards: 2, 4, 6
10	Chapter 10	Identify and Describe Three-Dimensional Shapes	Domain: Geometry Standards: 1, 2, 3, 4
11	Chapter 11	Measurement	Domain: Measurement and Data Standards: 1, 2
12	Chapter 12	Classify and Sort Data	Domain: Measurement and Data Standard: 3

Kindergarten
Instruction and Assessment* Schedule
2014-2015

It is expected that the units will be taught consecutively. The table below reflects which units are assessed on each benchmark.

Approx. Number of Days of Instruction	**Pre/Post Inventory 8/25 – 8/29**	**13**	**8**	**12**	**Benchmark 1 Posttest 8/25 – 10/30**	**10**	**15**	**10**	**Benchmark 2 Posttest 11/3 – 1/15**	**13**	**11**	**15**	**Benchmark 3 Posttest 1/20 – 3/19**	**12**	**8**	**9**	**Benchmark 4 Posttest 3/23 – 6/5**	**Pre/Post Inventory 6/1 – 6/5**	**End of Year**
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			Getting Ready for Gr. 1 Unit
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			

*Kindergarten Pre/Post Inventory and Benchmark Tests are required by GSD. Additional assessment options are on each Unit of Study in the GSD maps.

Kindergarten Mathematics Curriculum Map - Overview

Lesson Plan Format:

Lesson Plan Format with Go Math! References:

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.
Go Math! Alignment	The primary textbook adopted in Granite 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 – 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.

Unit of Study 1	Kindergarten	Quarter 1	Approx. 13 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.

3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Cluster: Count to tell the number of objects.

4. Understand the relationship between numbers and quantities; connect counting to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.

c. Understand that each successive number name refers to a quantity that is one larger.

Domain: Operations and Algebraic Thinking K.OA

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).

Domain: GSD

1. Name days of week in order.

2. Identify ordinal numbers 1st - 5th.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.CC.3** • Write numbers. 🗝 Count objects and write the number. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter)	• and • count • day • decompose • different • digit • fewer • fifth • first • five • four • fourth	

Unit of Study 1 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.CC.4a • Count objects in a group and say the number. (Up to 9 objects - 1st Quarter) (Up to 10 objects - 2nd Quarter) (Up to 20 objects - 3rd Quarter) **K.CC.4b** 🗝 Tell how many are in a group by counting to the last number. • Count the objects in any way they are set up. (moved, rearranged, hidden) **K.CC.4c** • Know when I count objects the numbers are getting larger because the group is getting larger. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.OA.3** 🗝 Decompose numbers into number pairs. • Show number pairs with drawings. • Write number pairs with equations. (Up to 5 - 1st Quarter) (Up to 10 - 2nd Quarter) **GSD** • Name days of the week in order. • Use ordinal numbers to count first, second, third, fourth, and fifth. 🗝 Key Concepts for Differentiation - See p. 8.	• larger • match • more • number • number pair • numeral • object • one • quantity • second • third • three • two • week • zero	

Unit of Study 1 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
[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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • Use digital tools to produce math writing and collaborate with others. • Participate in math writing projects.		

Unit of Study 1 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 1 – Additional Resources
Lesson 1.1 K.CC.4a **Lesson 1.2** K.CC.3 **Lesson 1.3** K.CC.4a **Lesson 1.4** K.CC.3 **Lesson 1.5** K.CC.4a **Lesson 1.6** K.CC.4b **Lesson 1.7** K.OA.3 **Lesson 1.8** K.CC. 4c **Lesson 1.9** K.CC.3 **Lesson 1.10** K.CC.3	**Model and Count 1-5** **VDW 7th Edition - pages 127-128** **IXL - Numbers and Counting Up to 5: Count to 5 - Assessment** - http://www.ixl.com/math/kindergarten/count-to-5 **IXL - Represent Numbers Up to 5 - Assessment** - http://www.ixl.com/math/kindergarten/represent-numbers-up-to-5 **Illuminations - "Let's Count to Five" Unit** - http://illuminations.nctm.org/LessonDetail.aspx?ID=U57 **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 - "Recognizing Numerals and Numbers" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10568 **UEN - "Writing Numerals" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10571 **Zero** **YouTube - Sesame Street - Zero the Hero** - http://www.youtube.com/watch?v=k9Mnjyrf9xU **YouTube - Zero the Hero by Joan Holub - Book Preview** - http://www.youtube.com/watch?v=Kjj7I2t5_Kc **Days of the Week** **YouTube - Days of the Week - Song** - http://www.youtube.com/watch?v=OPzIbbvoiMA **Ohio Department of Education - "Days of the Week" Lesson -** http://ims.ode.state.oh.us/ODE/IMS/Lessons/Content/CSS_LP_S01_BA_LKG_I01_01.pdf **Ordinal Numbers** **Toy Theater - Ordinal Numbers - Game** - http://toytheater.com/ordinal-number.php **YouTube - Std. 1 - Maths - Position Words, Ordinal Numbers - Video** - http://www.youtube.com/watch?v=nx6ZhdNZxLQ&feature=related

	Unit of Study 1 - Additional Resources - Continued
	Literature All Through the Week with Cat and Dog by Rozanne Lanczak Williams Arctic Fives Arrive by Elinor Pinczes A Chick Called Saturday by Joyce Dunbar Cookie's Week by Cindy Ward Count the Ways to Get Around: Learning to Count to 5 by Joan Chapman Five Creatures by Emily Jenkins Five Little Ducks by Pamela Paparone Five Little Monkeys Jumping on the Bed by Eileen Christelow Five Little Monkeys Sitting in a Tree by Eileen Christelow Five Little Penguins Slipping on the Ice by Steve Metzger Five Little Pumpkins by Iris Van Rynbach Five Ugly Monsters by Tedd Arnold Henry the Fourth by Stuart J. Murphy Seven Blind Mice by Ed Young Today is Monday by Eric Carle The Very Hungry Caterpillar by Eric Carle Zero by Kathryn Otoshi Zero is the Leaves on the Tree by Betsy Franco Zero the Hero by Joan Holub
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.

Unit of Study 2	Kindergarten	Quarter 1	Approx. 8 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]

[1]Include groups with up to ten objects.

Math Content Objectives

I can:

K.CC.6

- Tell if one group is greater than, less than, or equal to another group.
  (Up to 5 - 1st Quarter)
  (Up to 10 - 2nd Quarter)

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.
- Describe the relationship between pictures and text.
- Identify basic similarities and differences between images and texts on the same math topic.
- Engage in group reading activities of math texts.

Vocabulary

- alike
- compare
- equal
- fewer
- five
- four
- greater than
- less
- less than
- match
- more
- object
- one
- same
- same number
- three
- two

Teacher's Resources and Notes

Unit of Study 2 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 2 – Additional Resources
Lesson 2.1 K.CC.6 **Lesson 2.2** K.CC.6 **Lesson 2.3** K.CC.6 **Lesson 2.4** K.CC.6 **Lesson 2.5** K.CC.6	**Comparing Numbers 1-5** **VDW 7th Edition - pages 126-127** **PBS Kids - Curious George's Busy Day - Bug Catcher Game** - http://pbskids.org/curiousgeorge/busyday/bugs/ **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 **Education Place - More, Fewer, Same - Student Tutorial** - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/mw/help/eh_popup_k.thtml&grade=K&title=More,+Fewer,+Same&tm=tmfa0104e

	Unit of Study 2 - Additional Resources - Continued
	Literature More, Fewer, Less by Tana Hoban
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.

Unit of Study 3	Kindergarten	Quarter 1	Approx. 12 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.

3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Cluster: Count to tell the number of objects.

5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Cluster: Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]

[1]Include groups with up to ten objects.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.CC.3** • Write numbers. ⊶ Count objects and write the number. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.CC.5** • Count and tell "How Many?" are in a group. Arrangements - Linear, Array or Circle (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) Arrangement – Scattered (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 10 - 2nd Quarter)	• and • count • decompose • digit • eight • greater than • less than • match • more • nine • number • number pair • numeral • object • row • seven • six	

Unit of Study 3 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.CC.5 (Continued) • Show a number with objects. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.CC.6** • Tell if one group is greater than, less than, or equal to another group. (Up to 5 - 1st Quarter) (Up to 10 - 2nd Quarter) 🗝 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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts.		

Unit of Study 3 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 3 – Additional Resources
Lesson 3.1 K.CC.5 **Lesson 3.2** K.CC.3 **Lesson 3.3** K.CC.5 **Lesson 3.4** K.CC.3 **Lesson 3.5** K.CC.5 **Lesson 3.6** K.CC.3 **Lesson 3.7** K.CC.5 **Lesson 3.8** K.CC.3 **Lesson 3.9** K.CC.6	**Model and Count 6-9** **VDW 7th Edition - pages 127-128** **Toy Theater - How Many - Game** - http://toytheater.com/how-many.php **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 - "Recognizing Numerals and Numbers" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10568 **UEN - "Writing Numerals" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10571

	Unit of Study 3 - Additional Resources - Continued
	Literature Let's Go Visiting by Sue Williams
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.

Unit of Study 4	Kindergarten	Quarter 2	Approx. 10 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.

2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Cluster: Count to tell the number of objects.

5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Cluster: Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]

[1]Include groups with up to ten objects.

7. Compare two numbers between 1 and 10 presented as written numerals.

Domain: Operations and Algebraic Thinking K.OA

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **<u>K.CC.2</u>** • Count forward from any number. **<u>K.CC.3</u>** • Write numbers. 🗝 Count objects and write the number. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter)	• and • compare • count • decompose • digit • eight • equal • fewer • five • four • greater than • larger • less than	

Unit of Study 4 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.CC.5 🗝 Count and tell "How Many?" are in a group. Arrangements - Linear, Array or Circle (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) Arrangement – Scattered (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 10 - 2nd Quarter) • Show a number with objects. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.CC.6** 🗝 Tell if one group is greater than, less than, or equal to another group. (Up to 5 - 1st Quarter) (Up to 10 - 2nd Quarter) **K.CC.7** 🗝 Compare two written numbers and find the one that is greater. 🗝 Compare two written numbers and find the one that is less. (Numbers 1-5 - 1st Quarter) (Numbers 1-10 - 2nd Quarter)	• make ten • match • more • nine • number • number pair • numeral • object • one • same • seven • six • ten • three • two	

Unit of Study 4 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.OA.4 🗝 Show how to make ten starting at a smaller number. • Show an answer with a drawing. • Write an answer with an equation. 🗝 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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts.		

Unit of Study 4 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 4 – Additional Resources
Lesson 4.1 K.CC.5 **Lesson 4.2** K.CC.3 **Lesson 4.3** K.OA.4 **Lesson 4.4** K.CC.2 **Lesson 4.5** K.CC.6 **Lesson 4.6** K.CC.6 **Lesson 4.7** K.CC.7	**Model and Count to 10** **VDW 7th Edition - pages 127-128** **PBS Kids - Curious George's Busy Day - Flower Garden Game** - http://pbskids.org/curiousgeorge/busyday/flowers/ **PBS Kids - Curious George's Busy Day - Meatball Launcher Game** - http://pbskids.org/curiousgeorge/busyday/meatballs/ **PBS Kids - Curious George's Busy Day - Hide and Seek Game** - http://pbskids.org/curiousgeorge/busyday/hideseek/ **PBS Kids - Curious George - Count Your Chickens Game** - http://pbskids.org/curiousgeorge/games/count_your_chickens/count_your_chickens.html **Fun School - Go-Go Go-Karts - Game** - http://funschool.kaboose.com/formula-fusion/carnival/games/game_go-go_go-karts.html **Fun 4 The Brain - Big Sea Count - Counting Game** - http://www.fun4thebrain.com/preschool/bigseacount.html **IXL - Count to 10 - Assessment** - http://www.ixl.com/math/kindergarten/count-to-10 **Media EM Games - Counting Up to 10 - Game** - http://media.emgames.com/emgames/demosite/playdemo.html?activity=M1A042&activitytype=dcr **Cookie - What Number Missing - Game** - http://www.cookie.com/kids/games/what-number-missing.html **ABCya! - Counting Fish - Game** - http://www.abcya.com/counting_fish.htm **Primary Online - Findra - Game** - http://www.primaryonline.co.uk/sitetour/pol/findra.html **ABC - Count Us In - Game 11** - http://www.abc.net.au/countusin/games/game11.htm **Toy Theater - Space Race - Game** - http://toytheater.com/space-race.php **Illuminations - Concentration - Interactive Applet** - http://illuminations.nctm.org/ActivityDetail.aspx?ID=73 **Illuminations - "Let's Count to Ten" Unit** - http://illuminations.nctm.org/LessonDetail.aspx?ID=L506 **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 **ABC - Count Us In - Game 7** - http://www.abc.net.au/countusin/games/game7.htm **UEN - "Recognizing Numerals and Numbers" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10568 **UEN - "Writing Numerals" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10571 **Kidport - Numbers - Finding Groups of Things from 1 to 10 - Game** - http://www.kidport.com/GradeK/Math/NumberSense/MathKNumbers.htm **A to Z Teacher Stuff - Counting and Numbers - Lessons** - http://www.atozteacherstuff.com/Lesson_Plans/Mathematics/__Grades_K-2/Counting___Numbers/index.shtml **Comparing Numbers 1-10** **VDW 7th Edition - pages 126-127** **PBS Kids - Curious George's Busy Day - Bug Catcher Game** - http://pbskids.org/curiousgeorge/busyday/bugs/ **Inkless Tales - What Number Teacher-Directed Activity** - http://www.inklesstales.com/games/what_number.shtml **Education Place - More, Fewer, Same - Student Tutorial** - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/mw/help/eh_popup_k.thtml&grade=K&title=More,+Fewer,+Same&tm=tmfa0104e

	Unit of Study 4 - Additional Resources - Continued
	Literature A-Counting We will Go by Rozanne Lanczak Williams Anno's Counting Book by Mitsumasa Anno Big Fat Hen by Keith Baker Christmas for 10 by Cathryn Falwell Chrysanthemum by Kevin Henkes Click, Clack, Splash, Splash by Doreen Cronin Count! by Denise Fleming Dinner at Panda Palace by Stephanie Calmenson Emeka's Gift by Ifeoma Onyefulu Every Buddy Counts by Stuart J. Murphy Feast for 10 by Cathryn Falwell I Hunter by Pat Hutchins Just Enough Carrots by Stuart J. Murphy Moja Means One: Swahili Counting Book by Muriel Feelings Monster Math by Anne Miranda Monster Math Picnic by Grace Maccarone Mouse Count by Ellen Stoll Walsh One Hungry Monster by Susan Heyboer O'Keefe One Witch by Laura Leuck Over in the Meadow by Olive A. Wadsworth Ten Black Dots by Donald Crews Ten Flashing Fireflies by Philemon Sturges 10 for Dinner by Jo Ellen Bogart Ten Red Apples by Pat Hutchins We All Went on Safari by Laurie Krebs What's in the Garden? By Jessica Baron
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.

Unit of Study 5	Kindergarten	Quarter 2	Approx. 15 days	GSD Math 8/25/14

Domain: Operations and Algebraic Thinking K.OA

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings[2], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

[2]Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).

4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

5. Fluently add and subtract within 5.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.OA.1** 🗝 Can add using objects. (Substitute in strategies as they are used: fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, equations.) • Can subtract using objects. (Substitute in strategies as they are used: fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, equations.) **K.OA.2** • Can use objects to solve addition story problems. • Can use drawings to solve addition story problems. • Can use objects to solve subtraction story problems. • Can use drawings to solve subtraction story problems.	• add • addend • and • count on • decompose • eight • equal • equation • expression • five • four • make ten • nine • number pair • object • one • plus	

Unit of Study 5 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.OA.3 🗝 Decompose numbers into number pairs. • Show number pairs with drawings. • Write number pairs with equations. (Up to 5 - 1st Quarter) (Up to 10 - 2nd Quarter) **K.OA.4** • Show how to make ten starting at a smaller number. • Show an answer with a drawing. • Write an answer with an equation. **K.OA.5** 🗝 Add within 5. • Subtract within 5. 🗝 Key Concepts for Differentiation - See p. 8.	• seven • six • sum • ten • three • two	
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.		

Unit of Study 5 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Reading Standards for Informational Text (Cont.) • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 5 – Additional Resources
Lesson 5.1 K.OA.1 **Lesson 5.2** K.OA.1 **Lesson 5.3** K.OA.1 **Lesson 5.4** K.OA.5 **Lesson 5.5** K.OA.4 **Lesson 5.6** K.OA.5 **Lesson 5.7** K.OA.2 **Lesson 5.8** K.OA.3 **Lesson 5.9** K.OA.3 **Lesson 5.10** K.OA.3 **Lesson 5.11** K.OA.3 **Lesson 5.12** K.OA.3	**Addition to 10** **VDW 7th Edition - pages 128-129; 132-138; 151; 170-172** **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 **Kent - Lady Bird Spots - Model** - http://www.kenttrustweb.org.uk/kentict/content/games/ladyBirdSpots/index.html **UEN - "More or Less Pigs in the Pen" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=13910

	Unit of Study 5 - Additional Resources - Continued
	Literature Animals on Board by Stuart J. Murphy Cat Show by Jayne Harvey Counting at the Zoo by Laurie Chilek Fish Eyes: A Book You Can Count On by Lois Ehlert Math Fables by Greg Tang More or Less by Rebecca Fjelland Davis One Guinea Pig Is Not Enough by Kate Duke
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; Standards Practice Pages. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 6	Kindergarten	Quarter 2	Approx. 10 days	GSD Math 8/25/14

Domain: Operations and Algebraic Thinking K.OA

Cluster: Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction with objects, fingers, mental images, drawings[2], sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

[2]Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)

2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

5. Fluently add and subtract within 5.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.OA.1** • Can add using objects. (Substitute in strategies as they are used: fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, equations.) • Can subtract using objects. (Substitute in strategies as they are used: fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, equations.) **K.OA.2** • Can use objects to solve addition story problems. • Can use drawings to solve addition story problems. • Can use objects to solve subtraction story problems. • Can use drawings to solve subtraction story problems.	• difference • equal • equation • expression • minus • subtract • take away	

Unit of Study 6 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.OA.5 • Add within 5. 🔑 Subtract within 5. 🔑 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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts.		

Unit of Study 6 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 6 – Additional Resources
Lesson 6.1 K.OA.1 **Lesson 6.2** K.OA.1 **Lesson 6.3** K.OA.1 **Lesson 6.4** K.OA.5 **Lesson 6.5** K.OA.5 **Lesson 6.6** K.OA.2 **Lesson 6.7** K.OA.2	**Subtraction to 10** **VDW 7th Edition - pages 149; 151-153** **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 **Kent - Five Little Ducks - Model and Song** - http://www.kenttrustweb.org.uk/kentict/content/games/five_little_ducks.html **Kent - Five Little Speckled Frogs** - http://www.kenttrustweb.org.uk/kentict/content/games/five_frogs_v2.html **ICT Games - Soccer Subtraction - Games** - http://www.ictgames.com/soccer_subtraction.html **UEN - "Gulping Down Subtraction" Ten Sly Piranhas Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=21397 **UEN - "Sensational Subtraction Centers" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=16222

	Unit of Study 6 - Additional Resources - Continued
	Literature Elevator Magic by Stuart J. Murphy 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 Pete the Cat and His Four Groovy Buttons by James Dean 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 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.

Unit of Study 7	Kindergarten	Quarter 3	Approx. 13 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.

3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Domain: Number and Operations in Base Ten K.NBT

Cluster: Work with numbers 11–19 to gain foundations for place value.

1. Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.CC.3** • Write numbers. 🗝 Count objects and write the number. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.NBT.1** 🗝 Make numbers 11 -19 with ten ones and some more ones. 🗝 Take apart numbers 11 – 19 to show ten ones and some more ones. • Draw a picture to show ten ones and some more ones. • Write an equation to show ten ones and some more ones. 🗝 Key Concepts for Differentiation - See p. 8.	• and • compose • decompose • digit • eighteen • eleven • equal • equation • fifteen • fourteen • make ten • nineteen • number • number pair • numeral • ones • seventeen • sixteen • ten • thirteen • twelve	

Unit of Study 7 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
[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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • Use digital tools to produce math writing and collaborate with others. • Participate in math writing projects.		

Unit of Study 7 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 7 – Additional Resources
Lesson 7.1 K.NBT.1 **Lesson 7.2** K.CC.3 **Lesson 7.3** K.NBT.1 **Lesson 7.4** K.CC.3 **Lesson 7.5** K.NBT.1 **Lesson 7.6** K.CC.3 **Lesson 7.7** K.NBT.1 **Lesson 7.8** K.CC.3 **Lesson 7.9** K.NBT.1 **Lesson 7.10** K.CC.3	**Model and Count 11-19** **VDW 7th Edition - pages 138-139** **PBS Kids - Curious George's Busy Day - Apple Picking Game** - http://pbskids.org/curiousgeorge/busyday/apples/ **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 **UEN - "Recognizing Numerals and Numbers" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10568 **UEN - "Writing Numerals" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=10571 **UEN - "Numbers Through the Year" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=21365

	Unit of Study 7 - Additional Resources - Continued
	Literature Bears at the Beach: Counting 10 - 20 by Niki Yektai Count and See by Tana Hoban Counting is for the Birds by Frank Mazzola, Jr. Dragon Naps by Lynne Bertrand The Handmade Counting Book by Laura Rankin Monster Munches by Laura Numeroff Teeth, Tails, & Tentacles: An Animal Counting Book by Christopher Wormell Twelve Days of Christmas by Jan Brett Twelve Days of Kindergarten by Deborah Lee Rose
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.

Unit of Study 8	Kindergarten	Quarter 3	Approx. 11 days	GSD Math 8/25/14

Domain: Counting and Cardinality K.CC

Cluster: Know number names and the count sequence.

1. Count to 100 by ones and by tens.
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

Cluster: Count to tell the number of objects.

5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.

Cluster: Compare numbers.

6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.[1]

[1]Include groups with up to ten objects.

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.CC.1** 🗝 Count by ones. (Up to 20 - 1st Quarter) (Up to 50 - 2nd Quarter) (Up to 80 - 3rd Quarter) (Up to 100 - 4th Quarter) 🗝 Count to 100 by tens. **K.CC.2** • Count forward from any number.	• compare • count • digit • eight • eighteen • eleven • fewer • fifteen • fifty • five • four • fourteen • greater than • larger • less than	

Unit of Study 8 (continued)

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
K.CC.3 • Write numbers. 🗝 Count objects and write the number. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.CC.5** 🗝 Count and tell "How Many?" are in a group. Arrangements - Linear, Array or Circle (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) Arrangement – Scattered (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 10 - 2nd Quarter) • Show a number with objects. (Up to 9 - 1st Quarter) (Up to 10 - 2nd Quarter) (Up to 20 - 3rd Quarter) **K.CC.6** • Tell if one group is greater than, less than, or equal to another group. (Up to 5 - 1st Quarter) (Up to 10 - 2nd Quarter) 🗝 Key Concepts for Differentiation - See p. 8.	• more • nine • nineteen • number • numeral • object • one • one hundred • ones • seven • seventeen • six • sixteen • ten • tens • thirteen • three • twelve • twenty • two	

Unit of Study 8 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
[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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • Use digital tools to produce math writing and collaborate with others. • Participate in math writing projects.		

Unit of Study 8 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 8 – Additional Resources
Lesson 8.1 K.CC.5 **Lesson 8.2** K.CC.3 **Lesson 8.3** K.CC.2 **Lesson 8.4** K.CC.6 **Lesson 8.5** K.CC.1 **Lesson 8.6** K.CC.1 **Lesson 8.7** K.CC.1 **Lesson 8.8** K.CC.1	**Model and Count 20** VDW 7th Edition - pages 128-129 PBS Kids - Curious George's Busy Day - Counting with Allie Game - http://pbskids.org/curiousgeorge/busyday/allie/ Cookie - What Number Missing - Game - http://www.cookie.com/kids/games/what-number-missing.html UEN - "Recognizing Numerals and Numbers" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10568 UEN - "Writing Numerals" Lesson - http://www.uen.org/Lessonplan/preview.cgi?LPid=10571 **Comparing Numbers to 20** VDW 7th Edition - pages 126-127 Inkless Tales - What Number Teacher-Directed Activity - http://www.inklesstales.com/games/what_number.shtml **Count by Ones to 100** VDW 7th Edition - pages 188-189 PBS Kids - Curious George's Busy Day - Bunny Ride Game - http://pbskids.org/curiousgeorge/busyday/drive/ Education Place - Count, Represent, and Recognize Numbers 0-31 - Student Tutorial - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Count,+Represent,+and+Recognize+Numbers+0-31&tm=tmfa0117e HMH School Publishers - Count Along to 100 - Interactive Applet - http://www.harcourtschool.com/activity/count/index.html YouTube - Macarena Count to 100 with Dr. Jean - Song - http://www.youtube.com/watch?v=iGKXZVxAffM&feature=youtu.be **Count by Tens to 100** VDW 7th Edition - pages 188-189 Education Place - eManipulatives Hundred Chart - http://www.eduplace.com/cgi-bin/schtemplate.cgi?template=/kids/hmm/manip/mn_popup.thtml&filename=hc&title=Hundred%20Chart&grade=K

	Unit of Study 8 - Additional Resources - Continued
	Literature Chicka Chicka 123 by Bill Martin Jr. Curious George Learns to Count from 1 to 100 by H. A. Rey From One to One Hundred by Teri Sloat How Many How Many How Many by Rick Walton The Icky Bug Counting Book by Jerry Pallotta Let's Count It Out, Jesse Bear by Nancy White Carlstrom Miss Bindergarten Celebrates the 100th Day of Kindergarten by Joseph Slate Monster Math by Anne Miranda One Guinea Pig Is Not Enough by Kate Duke One Moose, Twenty Mice by Clare Beaton One…Two…Three…Sassafras! by Stuart J. Murphy 100 Days of Cool by Stuart J. Murphy 100 School Days by Anne Rockwell One Woolly Wombat by Rod Trinca and Kerry Argent 100th Day Worries by Margery Cuyler The Twelve Days of Kindergarten by Deborah Lee Rose Twenty is too Many by Kate Duke
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 1-8; Standards Practice Pages. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 9	Kindergarten	Quarter 3	Approx. 15 days	GSD Math 8/25/14

Domain: Geometry K.G

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

2. Correctly name shapes regardless of their orientations or overall size.

Cluster: Analyze, compare, create, and compose shapes.

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

6. Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle?"*

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.G.2** • Name shapes. 🗝 Name shapes that are turned in different ways. **K.G.4** • Compare two-dimensional and three-dimensional shapes. 🗝 Tell how shapes are alike or different. **K.G.6** • Put shapes together to make new shapes. • Put shapes together to make bigger shapes. 🗝 Key Concepts for Differentiation - See p. 8.	• alike • attribute • circle • compare • compose • curve • different • flat • hexagon • rectangle • same • shape • side • sides of equal length • sort • square • triangle • two-dimensional shape • vertex (plural - vertices; "corners")	

Unit of Study 9 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
[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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • Use digital tools to produce math writing and collaborate with others. • Participate in math writing projects.		

Unit of Study 9 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 9 – Additional Resources
Lesson 9.1 K.G.2 **Lesson 9.2** K.G.4 **Lesson 9.3** K.G.2 **Lesson 9.4** K.G.4 **Lesson 9.5** K.G.2 **Lesson 9.6** K.G.4 **Lesson 9.7** K.G.2 **Lesson 9.8** K.G.4 **Lesson 9.9** K.G.2 **Lesson 9.10** K.G.4 **Lesson 9.11** K.G.4 **Lesson 9.12** K.G.6	**Identifying 2-Dimensional Shapes (Circle, Triangle, Square, Rectangle, Hexagon)** **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 **UEN - "Triangles, Triangles, Triangles" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=18784 **Sorting 2-Dimensional Shapes** **VDW 7th Edition - pages 400-402; 404-405; 410-412** **Education Place - Identify and Sort Basic Plane Shapes - Student Tutorial** - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Identify+and+Sort+Basic+Plane+Shapes&tm=tmfa0106e **Compose Simple Shapes to Form Larger 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

	Unit of Study 9 - Additional Resources - Continued
	Literature Bear in a Square by Stella Blackstone Button Box by Margarette Reed Cat Show by Jayne Harvey Circles by Jan Kottke Circles, Triangles and Squares by Tana Hoban Circus Shapes by Stuart J. Murphy I See Shapes by Marcia Fries Icky Bug Shapes by Jerry Pallotta Mouse Shapes by Ellen Stoll Walsh Rectangles by Jennifer S. Burke The Secret Birthday Message by Eric Carle Shape Spotters by Megan E. Bryant Shapes, Shapes, Shapes by Tana Hoban 3 Little Firefighters by Stuart J. Murphy 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 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.

Unit of Study 10	Kindergarten	Quarter 4	Approx. 12 days	GSD Math 8/25/14

Domain: Geometry K.G.

Cluster: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.

2. Correctly name shapes regardless of their orientations or overall size.

3. Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

Cluster: Analyze, compare, create, and compose shapes.

4. Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.G.1** - Name the shapes in the world. - Use words to tell where a shape is located. **K.G.2** - Name shapes. - Name shapes that are turned in different ways. **K.G.3** - Tell if a shape is two-dimensional or three-dimensional.	- above - behind - below - beside - between - by - circle - cone - cube - curved surface - cylinder - flat surface - hexagon - in front of - next to - rectangle - roll	

Unit of Study 10 (continued)

Math Content Objectives

K.G.4

- Compare two-dimensional and three-dimensional shapes.
- Tell how shapes are alike or different.

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.
- Describe the relationship between pictures and text.
- Identify basic similarities and differences between images and texts on the same math topic.
- Engage in group reading activities of math texts.

Vocabulary

- shape
- slide
- solid shape
- sort
- sphere
- square
- stack
- three-dimensional shape
- triangle
- two-dimensional shape

Teacher's Resources and Notes

Unit of Study 10 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 10 – Additional Resources
Lesson 10.1 K.G.4 **Lesson 10.2** K.G.2 **Lesson 10.3** K.G.2 **Lesson 10.4** K.G.2 **Lesson 10.5** K.G.2 **Lesson 10.6** K.G.3 **Lesson 10.7** K.G.1 **Lesson 10.8** K.G.1 **Lesson 10.9** K.G.1	**Identifying 3-Dimensional Shapes (Cube, Cone, Cylinder, Sphere)** VDW 7th Edition – pages 406-409; 412-413 **Math Learning Center – "Geometry: 3-D Shapes" Unit** - 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/ **UEN - "Geometric Solids" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=18785 **Sorting 2-Dimensional and 3-Dimensional Shapes** **Castle Shapes - Sorting - Interactive Applet** - http://www.ngfl-cymru.org.uk/vtc/castle_shapes/eng/Introduction/StarterActivityPart2.htm **Positional/Location Words** **Education Place - Positional Words - Student Tutorial** - http://eduplace.com/cgi-bin/schtemplate.cgi?template=/math/hmm/models/tm_popup_k.thtml&grade=K&title=Compare+Attributes+and+Sort+Objects&tm=tmfa0101e **PBS Kids - Which Clifford? - Game** - http://pbskids.org/clifford/games/whichclifford-game.html **UEN - "Ins and Outs of Tops and Bottoms" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=16188

	Unit of Study 10 - Additional Resources - Continued
	Literature Block City by Robert Louis Stevenson Captain Invincible and the Space Shapes by Stuart J. Murphy Cubes, Cones, Cylinders, & Spheres by Tana Hoban Each Peach Pear Plum by Janet and Allan Ahlberg Jump, Frog, Jump! by Robert Kalan Math Counts: Sorting by Henry Arthur Pluckrose Rosie's Walk by Pat Hutchins Shapes by Henry Arthur Pluckrose The Shape of Things by Dayle Ann Dodds What's In My Pocket? by Rozanne Lanczak Williams Where's That Bone? by Lucille Recht Penner
Assessment Options	• **Go Math! Assessment Options**: Show What You Know Diagnostic Assessment; Mid-Chapter Checkpoint; Quick Checks; Portfolio Assessment; Chapter 10 Review/Test; Chapter 10 Test; Diagnostic Interview Assessment; Soar to Success; Performance Assessment Chapters 9-10; Standards Practice Pages. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 11	Kindergarten	Quarter 4	Approx. 8 days	GSD Math 8/25/14

Domain: Measurement and Data K.MD

Cluster: Describe and compare measurable attributes.

1. Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

2. Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter.*

Math Content Objectives	Vocabulary	Teacher's Resources and Notes
I can: **K.MD.1** • Tell the attributes of an object that can be measured. **K.MD.2** 🗝 Compare objects by length. 🗝 Compare objects by weight. • Measure and compare two objects. 🗝 Key Concepts for Differentiation - See p. 8.	• attribute • bigger • compare • heavier • height • length • lighter • longer • same height • same length • same weight • shorter • smaller • taller • weight	

Unit of Study 11 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
[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. • Describe the relationship between pictures and text. • Identify basic similarities and differences between images and texts on the same math topic. • Engage in group reading activities of math texts. **Writing Standards** • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • Use digital tools to produce math writing and collaborate with others. • Participate in math writing projects.		

Unit of Study 11 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 11 – Additional Resources
Lesson 11.1 K.MD.2 **Lesson 11.2** K.MD.2 **Lesson 11.3** K.MD.2 **Lesson 11.4** K.MD.2 **Lesson 11.5** K.MD.1	**Describing Measurable Attributes** **VDW 7th Edition - pages 370-376; 381-383** **SoftSchools - Long and Short - Practice** - http://www.softschools.com/measurement/games/long_and_short/ **SoftSchools - Tall and Short - Practice** - http://www.softschools.com/measurement/games/tall_and_short/ **IXL - Compare Size, Weight, Capacity - Assessment** - http://www.ixl.com/math/kindergarten/compare-size-weight-capacity **Story Place - Which is Bigger? - Practice** - http://www.storyplace.org/preschool/activities/bigger.asp **UEN - "Hunting for 'Measured' Treasure" Lesson** - http://www.uen.org/Lessonplan/preview.cgi?LPid=16227

	Unit of Study 11 - Additional Resources - Continued
	Literature The Dragon's Scales: A Math Reader by Sarah Albee Heavy and Light by Joan Chapman Is it Larger? Is It Smaller? by Tana Hoban The Long and Short of It by Cheryl Nathan Math Counts: Weight by Henry Arthur Pluckrose Mighty Maddie by Stuart J. Murphy Who's Short? Who's Tall? by Kailee Herbst
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.

Unit of Study 12	Kindergarten	Quarter 4	Approx. 9 days	GSD Math 8/25/14

Domain: Measurement and Data K.MD

Cluster: Classify objects and count the number of objects in each category.

3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.[3]

[3]Limit category counts to be less than or equal to 10.

Math Content Objectives

I can:

K.MD.3

- Classify objects into groups.
- Count the number of objects in a group.
- Answer questions about the groups.

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.
- Describe the relationship between pictures and text.
- Identify basic similarities and differences between images and texts on the same math topic.
- Engage in group reading activities of math texts.

Vocabulary

- alike
- category
- classify
- count
- data
- different
- fewer
- graph
- more
- object
- shape
- size
- sort

Teacher's Resources and Notes

Unit of Study 12 (continued)		
Math Language Objectives	**Vocabulary**	**Teacher's Resources and Notes**
Writing Standards • Use a combination of drawing, dictating, and writing to compose opinion pieces on math topics. • Use a combination of drawing, dictating, and writing to compose explanatory texts, providing some information on a math topic. • 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 in order to seek help, get information, or clarify something that is not understood. • Add drawings to math descriptions to provide detail. • Speak audibly and express math ideas clearly.		

Go Math! Utah Core Alignment	Unit of Study 12 – Additional Resources
Lesson 12.1 K.MD.3 **Lesson 12.2** K.MD.3 **Lesson 12.3** K.MD.3 **Lesson 12.4** K.MD.3 **Lesson 12.5** K.MD.3 **Lesson 12.6** K.MD.3	**Classify and Count by Color, Shape, and Size** **VDW 7th Edition – pages 406; 441-443** **PBS Kids - Sid the Science Kid - Sorting Box Activity** - http://pbskids.org/sid/fablab_sortingbox.html **Chateau Meddybemps - The Pumpkin Patch - Teacher-Led Activity** - http://www.meddybemps.com/halloween/pumpkin03.html **NLVM - Color, Shape, and Size - Interactive Applet** - http://nlvm.usu.edu/en/nav/frames_asid_270_g_1_t_3.html?open=instructions&from=category_g_1_t_3.html **PBS Kids - Curious George's Busy Day - Hat Grab Game** - http://pbskids.org/curiousgeorge/busyday/hats/ **PBS Kids - Curious George - I Love Shapes Game** - http://pbskids.org/curiousgeorge/games/i_love_shapes/i_love_shapes.html

	Unit of Study 12 - Additional Resources - Continued
	Literature The Button Box by Margarette S. Reid Grandma's Button Box by Linda Williams Aber Gray Rabbits Odd One Out by Alan Baker More or Less a Mess by Sheila Keenan
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 - Utah 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
Utah Standards Academy - http://www.schools.utah.gov/CURR/main/Core-Academy.aspx
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/
Math Their Way Assessment - http://www.center.edu/NEWSLETTER/cards1-3.pdf
Education Place - Math Lingo Review Game - http://www.eduplace.com/kids/hmm/swfs/mathlingo_gradek.html
Kelly's Kindergarten - http://kellyskindergarten.com/
Kindergarten Crayons - Blogspot - http://kindergartencrayons.blogspot.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