Kindergarten
Utah Core State Standards
Mathematics Curriculum Map
Granite School District

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

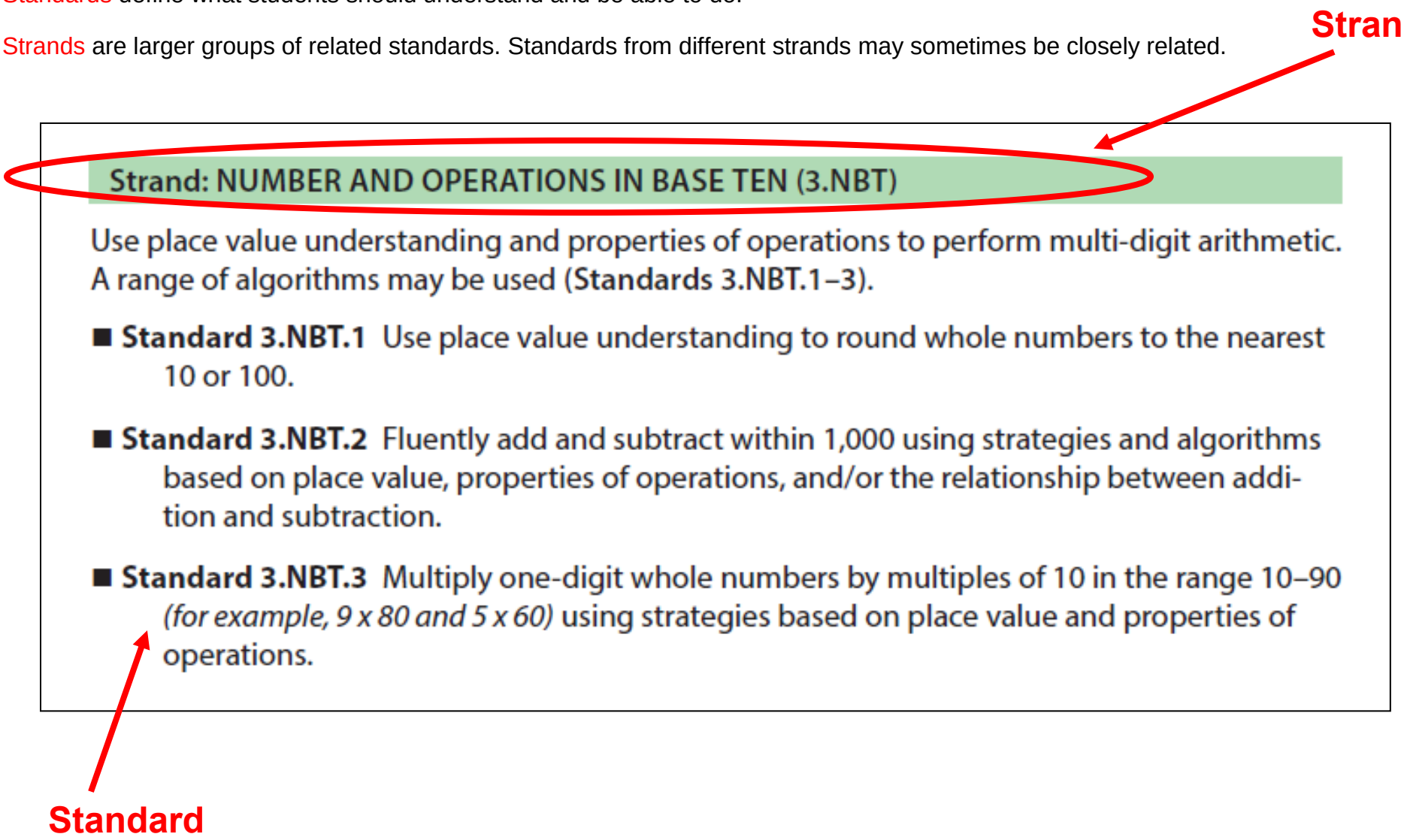
Dee Rigdon
K-6 Mathematics Specialist
dprigdon@graniteschools.org

Granite SCHOOL DISTRICT

How to Read the Grade Level Content Standards

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

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



Standards for Mathematical Practice

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

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

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

Standard K.MP.2 Reason abstractly and quantitatively.

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

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

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

Standard K.MP.4 Model with mathematics.

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

Standard K.MP.5 Use appropriate tools strategically.

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

Standard K.MP.6 Attend to precision.

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

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

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

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

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

Kindergarten Mathematics Curriculum Map
Granite School District Scope and Sequence Overview

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

Kindergarten
Instruction and Assessment Schedule
2017-2018

It is expected that the units will be taught consecutively. The table below reflects which units and standards are assessed on each benchmark. Kindergarten Pre/Post Inventory and Benchmark Tests are required by GSD. Additional assessment options are on each Unit of Study in the GSD maps.

Approx. Number of Days of Instruction	**Pre/Post Inventory 8/21 / 8/25**	**16**	**10**	**14**	**Benchmark 1 Posttest 8/21 – 10/26**	**13**	**18**	**13**	**Benchmark 2 Posttest 10/30 – 1/11**	**20**	**18**	**12**	**Benchmark 3 Posttest 1/16 – 3/28**	**13**	**9**	**10**	**Benchmark 4 Posttest 4/4– 5/25**	**Pre/Post Inventory 5/7– 5/11**	**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
Math Standards		*K.CC.3 *K.CC.4 K.CC.5 *K.CC.6 K.CC.7 *K.OA.3				K.CC.2 *K.CC.3 *K.CC.5 *K.CC.6 *K.CC.7 *K.OA.1 K.OA.2 *K.OA.3 *K.OA.4 *K.OA.5				*K.CC.1 K.CC.2 *K.CC.3 *K.CC.5 K.CC.6 K.CC.7 * K.NBT.1 * K.G.2 *K.G.4 K.G.6				K.MD.1 *K.MD.2 *K.MD.3 * K.G.1 K.G.2 K.G.3 * K.G.4 K.G.5					

*Indicates emphasized standards.

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!, 2015 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. Suggested Math Language Objectives can be located on the next page.
Key Concepts for Differentiation 🔑	In an effort to assist teachers in the process of differentiation in Tier I teaching, key concepts have been identified in the curriculum maps as those specific objectives a teacher would focus on during small group instruction with struggling students. Key concepts cover minimum, basic skills and knowledge every student must master. Key concepts are **NOT** an alternative to teaching the entire Utah State Core Standards, rather they emphasize which concepts to prioritize for differentiation.
Vocabulary	Vocabulary cards for instruction and word walls can be found at: http://www.graniteschools.org/mathvocabulary/
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; and, Personal Math Trainer. 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. • Semester Benchmark Assessments – These are cumulative tests for multiple Units of Study. These are to be given as a pretest and a posttest. Students not mastering content will need Tier 2 and/or Tier 3 interventions. • Exit slips, teacher observations, daily class work, homework, and basal assessments are to be used at the teacher's discretion to help guide and direct instruction.

Math Language Objectives

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

Reading Standards for Informational Text

- Ask and answer questions about key details in a math text.
- Describe the connection between ideas or information in a math text.
- Ask and answer questions about unknown math words in a text.
- 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.

Unit of Study 1	Kindergarten	Quarter 1	Approx. 13 – 16 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

Know number names and the count sequence.

3. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 representing a count of no objects).

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 numbers in the standard order. Pair each quantity of objects with one and only one number, and each number with the correct quantity of objects.

b. Understand that the last number name said represents 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 refers to a quantity that is one greater than the previous number.

Strand: Operations and Algebraic Thinking K.OA

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 by using objects or drawings. Record each decomposition by a drawing or equation. *For example, 5 = 2 + 3 and 5 = 4 + 1).*

Strand: GSD

1. Name days of week in order.

2. Identify ordinal numbers 1st - 5th.

Math Content Objectives

I can:

K.CC.3
- Write numbers.
- 🗝 Count objects and write the number.

K.CC.4a
- Count objects in a group and say the number.

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.

K.OA.3
- 🗝 Decompose numbers into number pairs.
- Show number pairs with drawings.
- Write number pairs with equations.

Vocabulary

- and
- count
- day
- decompose
- different
- digit
- fewer
- fifth
- first

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. 6.

Vocabulary (cont.)

- five
- four
- fourth
- larger
- match
- more
- number
- number pair
- numeral
- object
- one
- quantity
- second
- third
- three
- two
- week
- zero

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=Kjj7l2t5_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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 2	Kindergarten	Quarter 1	Approx. 8 – 10 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

Identify and compare quantities of objects and numerals.

6. Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.

Math Content Objectives	Vocabulary	
I can: **K.CC.6** 🗝 Tell if one group is greater than, less than, or equal to another group. 🗝 Key Concepts for Differentiation - See p. 6.	• alike • compare • equal • fewer • five • four • greater than • less • less than • match • more • object • one • same • same number • three • two	

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 3	Kindergarten	Quarter 1	Approx. 12 – 14 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

Know number names and the count sequence.

3. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 representing a count of no objects).

Count to tell the number of objects.

5. Use counting to answer questions about "how many." *For example, 20 or fewer objects arranged in a line, a rectangular array, or a circle, 10 or fewer objects in a scattered configuration.* **Using a number from 1–20, count out that many objects.**

Identify and compare quantities of objects and numerals.

6. Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.

Math Content Objectives	Vocabulary	
I can: **K.CC.3** • Write numbers. 🗝 Count objects and write the number. **K.CC.5** • Count and tell "How Many?" are in a group. • Show a number with objects. **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. 6.	• and • count • decompose • digit • eight • greater than • less than • match • more • nine • number • number pair • numeral • object • row • seven • six	

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 4	Kindergarten	Quarter 2	Approx. 10 – 13 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

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. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 representing a count of no objects).

Count to tell the number of objects.

5. Use counting to answer questions about "how many." *For example, 20 or fewer objects arranged in a line, a rectangular array, or a circle, 10 or fewer objects in a scattered configuration.* **Using a number from 1–20, count out that many objects.**

Identify and compare quantities of objects and numerals.

6. Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.

7. Compare two numbers between 1 and 10 presented as written numerals using "greater than," "less than," or "equal to."

Strand: Operations and Algebraic Thinking K.OA

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

4. Make sums of 10 using any number from 1 to 9. *For example, 2 + 8 = 10.* **Use objects or drawings to represent and record the answer.**

Math Content Objectives	Vocabulary	Vocabulary (cont.)
I can: **K.CC.2** • Count forward from any number. **K.CC.3** • Write numbers. 🔑 Count objects and write the number. **K.CC.5** 🔑 Count and tell "How Many?" are in a group. • Show a number with objects. **K.CC.6** 🔑 Tell if one group is greater than, less than, or equal to another group. **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. **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.	• and • compare • count • decompose • digit • eight • equal • fewer • five • four • greater than • larger • less than 🔑 Key Concepts for Differentiation - See p. 6.	• make ten • match • more • nine • number • number pair • numeral • object • one • same • seven • six • ten • three • two

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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 5	Kindergarten	Quarter 2	Approx. 15 – 18 days	GSD Math 6/1/17

Strand: Operations and Algebraic Thinking K.OA

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, or sounds.** *For example, use clapping, act out situations, and use verbal explanations, expressions, or equations.*
2. **Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem.**
3. **Decompose numbers less than or equal to 10 into pairs in more than one way by using objects or drawings. Record each decomposition by a drawing or equation** *For example, 5 = 2 + 3 and 5 = 4 + 1.*
4. **Make sums of 10 using any number from 1 to 9.** *For example, 2 + 8 = 10.* **Use objects or drawings to represent and record the answer.**
5. **Fluently add and subtract using numbers within 5.**

Math Content Objectives	Vocabulary	Vocabulary (cont.)
I can: **K.OA.1** 🔑 Can add using objects. • Can subtract using objects. **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. **K.OA.3** 🔑 Decompose numbers into number pairs. • Show number pairs with drawings. • Write number pairs with equations. **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. 6.	• add • addend • and • count on • decompose • eight • equal • equation • expression • five • four • make ten • nine • number pair • object • one • plus	• seven • six • sum • ten • three • two

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 6	Kindergarten	Quarter 2	Approx. 10 – 13 days	GSD Math 6/1/17

Strand: Operations and Algebraic Thinking K.OA

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, or sounds. *For example, use clapping, act out situations, and use verbal explanations, expressions, or equations.*

2. Solve addition and subtraction word problems within 10. Use objects or drawings to represent the problem.

5. Fluently add and subtract using numbers within 5.

Math Content Objectives	Vocabulary	
I can: **K.OA.1** • Can add using objects. 🔑 Can subtract using objects **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. **K.OA.5** • Add within 5. 🔑 Subtract within 5. 🔑 Key Concepts for Differentiation - See p. 6.	• difference • equal • equation • expression • minus • subtract • take away	

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 7	Kindergarten	Quarter 3	Approx. 13 – 20 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

Know number names and the count sequence.

3. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 representing a count of no objects).

Strand: Number and Operations in Base Ten K.NBT

Compose and decompose 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. Use objects or drawings and record each composition or decomposition by a drawing or equation. *For example, 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	
I can: **<u>K.CC.3</u>** • Write numbers. 🗝 Count objects and write the number. **<u>K.NBT.1</u>** 🗝 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. 6.	• and • compose • decompose • digit • eighteen • eleven • equal • equation • fifteen • fourteen • make ten • nineteen • number • number pair • numeral • ones • seventeen • sixteen • ten • thirteen • twelve	

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 8	Kindergarten	Quarter 3	Approx. 11 – 18 days	GSD Math 6/1/17

Strand: Counting and Cardinality K.CC

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. Read and write numbers using base ten numerals from 0 to 20. Represent a number of objects with a written numeral, in or out of sequence (0 representing a count of no objects).

Count to tell the number of objects.

5. Use counting to answer questions about "how many." *For example, 20 or fewer objects arranged in a line, a rectangular array, or a circle, 10 or fewer objects in a scattered configuration.* **Using a number from 1–20, count out that many objects.**

Identify and compare quantities of objects and numerals.

6. Use matching or counting strategies to identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group. Include groups with up to ten objects.

Math Content Objectives

I can:

K.CC.1
- 🗝 Count by ones.
- 🗝 Count to 100 by tens.

K.CC.2
- Count forward from any number.

K.CC.3
- Write numbers.
- 🗝 Count objects and write the number.

K.CC.5
- 🗝 Count and tell "How Many?" are in a group.
- Show a number with objects.

K.CC.6
- Tell if one group is greater than, less than, or equal to another group.

🗝 Key Concepts for Differentiation - See p. 6.

Vocabulary

- compare
- count
- digit
- eight
- eighteen
- eleven
- fewer
- fifteen
- fifty
- five
- four
- fourteen
- greater than
- larger
- less than
- more
- nine
- nineteen
- number
- numeral

Vocabulary (cont.)

- object
- one
- one hundred
- ones
- seven
- seventeen
- six
- sixteen
- ten
- tens
- thirteen
- three
- twelve
- twenty
- two

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; Performance Assessment Chapters 1-8; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 9	Kindergarten	Quarter 3	Approx. 12 days	GSD Math 6/1/17

Strand: Geometry K.G

Identify and describe shapes, including squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres.

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

Analyze, compare, create, and compose shapes.

4. Analyze, compare, and sort two- and three-dimensional shapes and objects, in different sizes and orientations, using informal language to describe their similarities, differences and other attributes (for example, color size, shape, number of sides).

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	
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. 6.	• 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")	

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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 10	Kindergarten	Quarter 4	Approx. 12 – 13 days	GSD Math 6/1/17

Strand: Geometry K.G.

Identify and describe shapes, including 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 ("flat") or three-dimensional ("solid").**

Analyze, compare, create, and compose shapes.

4. **Analyze, compare, and sort two- and three-dimensional shapes and objects in different sizes and orientations, using informal language to describe their similarities, differences, and other attributes (for example, color, size, shape, number of sides).**

Math Content Objectives	Vocabulary	Vocabulary (cont.)
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. **K.G.4** 🗝 Compare two-dimensional and three-dimensional shapes. • Tell how shapes are alike or different. 🗝 Key Concepts for Differentiation - See p. 6.	• above • behind • below • beside • between • by • circle • cone • cube • curved surface • cylinder • flat surface • hexagon • in front of • next to • rectangle • roll	• shape • slide • solid shape • sort • sphere • square • stack • three-dimensional shape • triangle • two-dimensional shape

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 **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; Performance Assessment Chapters 9-10; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 11	Kindergarten	Quarter 4	Approx. 8 – 9 days	GSD Math 6/1/17

Strand: Measurement and Data K.MD

Describe and compare measurable attributes of objects.

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 length of two pencils and describe one as shorter or longer.*

Math Content Objectives	Vocabulary	
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. 6.	• attribute • bigger • compare • heavier • height • length • lighter • longer • same height • same length • same weight • shorter • smaller • taller • weight	

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 **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; Personal Math Trainer. • **Daily/Weekly Formative Assessment Options**: Exit Slips, Observation, Daily Work, Homework.

Unit of Study 12	Kindergarten	Quarter 4	Approx. 9 – 10 days	GSD Math 6/1/17

Strand: Measurement and Data K.MD

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. Limit the category counts to less than or equal to 10.

Math Content Objectives	Vocabulary	
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. 6.	• alike • category • classify • count • data • different • fewer • graph • more • object • shape • size • sort	

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 **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; Performance Assessment Chapters 11-12; Personal Math Trainer. • **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