<table>
<tr><td>Grade: Kindergarten

Unit 2-Counting and Matching Numerals 0-10 with Comparing</td><td colspan="2">Subject: Math
Time Frame: 9-10 weeks
Domains: Counting and Cardinality and Measurement and Data</td></tr>
<tr><td>Standards</td><td>Content Standards:
K.CC.3, K.CC.1, K.CC.4, K.CC.2, K.MD.3
http://www.corestandards.org/wp-content/uploads/Math_Standards.pdf</td><td>Practice Standards:
MP 1, 2, 3, 4, 5, 6, 7, 8</td></tr>
<tr><td>Enduring Understandings</td><td colspan="2">1. Counting tells how many there are in a group regardless of their arrangement. The last number said when counting tells the total number of objects counted.
2. Numerals are the symbols we read and write to communicate quantities (numbers).
3. Understand that a number is 1 greater than the number before it and 1 less than the number after it.
4. We can write numbers to represent the amount of objects.
5. We can count by ones and tens.
6. We can identify whether the number of objects in one group is greater than, less than or equal to the number of objects in another group.</td></tr>
<tr><td>Essential Questions</td><td colspan="2">1. Why do we count?
2. How are numerals used?
3. How can two quantities be related?
4. How can we compare numbers?
5. How do we represent numerals?
6. How can we count in different ways?</td></tr>
<tr><td>Vocabulary</td><td colspan="2">zero, order, number line, forward, backward, count, counting on, compare, digits, number, numeral, less than, more than/greater than, model, number, numeral, ones, pair, quantity, same, sequence, set
See Common Core Georgia Performance Standards Mathematics Glossary
https://www.georgiastandards.org/Common-Core/Documents/CCGPS_Mathematics_Glossary.pdf</td></tr>
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Priority and Supporting CCSS	Explanations and Examples*
K.CC.1. Count to 100 by ones and by tens.	**K.CC.1**.The emphasis of this standard is on the counting sequence (rote counting). When counting by ones, students need to understand that the next number in the sequence is one more. When counting by tens, the next number in the sequence is "ten more" (or one more group of ten). Instruction on the counting sequence should be scaffolded (e.g., 1-10, then 1-20, etc.). Counting should be reinforced throughout the day, not in isolation. Examples: • Count the number of chairs of the students who are absent • Count the number of stairs, shoes, etc. • Counting groups of ten such as "fingers in the classroom" (ten fingers per student) When counting orally, students should recognize the patterns that exist from 1 to 100. They should also recognize the patterns that exist when counting by 10s.
K.CC.2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	**K.CC.2.** The emphasis of this standard is on the counting sequence to 100. Students should be able to count forward from any number, 1-99.
K.CC.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).	**K.CC.3.** Students should be given multiple opportunities to count objects and recognize that a numeral represents a specific quantity. Once this is established, students begin to read and write numerals (numerals are the symbols for the quantities). The emphasis should first be on quantity and then connecting quantities to the written symbols. • A sample unit sequence might include: 1. Counting up to 20 objects in many settings and situations over several weeks 2. Beginning to recognize, identify, and read the written numerals, and match the numerals to given sets of objects 3. Writing the numerals to represent counted objects Since the teen numbers are not written as they are said, teaching the teen

*Source – Connecticut Core Standards for Mathematics as adapted from the Arizona Academic Content Standards

	numbers as one group of ten and extra ones is foundational to understanding both the concept and the symbol that represents each teen number. For example, when focusing on the number "14," students should count out fourteen objects using one-to-one correspondence and then use those objects to make one group of ten and four extra ones. Students should connect the representation to the symbol "14."
K.CC.4. Understand the relationship between numbers and quantities; connect counting to cardinality. **1. 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.** **2. 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.** **3. Understand that each successive number name refers to a quantity that is one larger.**	**K.CC.4**. This standard focuses on one-to-one correspondence and how cardinality connects with quantity. • For example, when counting three bears, the student should use the counting sequence, "1-2-3," to count the bears and recognize that "three" represents the group of bears, not just the third bear. A student may use an interactive whiteboard to count objects, cluster the objects, and state, "This is three" (Cardinality tells "how many") In order to understand that each successive number name refers to a quantity that is one larger, students should have experience counting objects, placing one more object in the group at a time. • For example, using cubes, the student should count the existing group, and then place another cube in the set. Some students may need to re-count from one, but the goal is that they would count on from the existing number of cubes. Students should continue placing one more cube at a time and identify the total number in order to see that the counting sequence results in a quantity that is one larger each time one more cube is placed in the group A student may use a clicker (electronic response system) to communicate his/her count to the teacher.
K.CC.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.	**K.CC.5.** Students should develop counting strategies to help them organize the counting process to avoid re-counting or skipping objects. Examples: • If items are placed in a circle, the student may mark or identify the starting object • If items are in a scattered configuration, the student may move the objects into an organized pattern

	• Some students may choose to use grouping strategies such as placing objects in twos, fives, or tens (note: this is not a kindergarten expectation) • Counting up to 20 objects should be reinforced when collecting data to create charts and graphs A student may use a clicker (electronic response system) to communicate his/her count to the teacher.
K.MD.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. ** ** Limit category counts to be less than or equal to 10.	**K.MD.3**. Possible objects to sort include buttons, shells, shapes, beans, etc. After sorting and counting, it is important for students to: • explain how they sorted the objects • label each set with a category • answer a variety of counting questions that ask, "How many …"; and • compare sorted groups using words such as, "most", "least", "alike" and "different"

Resources
Daily Routine: Math Expressions Teacher Edition Volume 1: Daily Routines xxxi: Omit Using the Tens and Ones Flip Chart Common Core Georgia Performance Standards- Kindergarten Unit 2: Use tasks at teacher's discretion. Unit can be found at https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_K_Unit2FrameworkSE.pdf **Literature:** Quack and Count by Keith Baker

Unit Assessment
Links below have resources and formative assessments: Hawaii Standards Toolkit- Use assessments at teacher's discretion. http://standardstoolkit.k12.hi.us/common-core/mathematics/mathematics-assessments/assessment-listing/?code=K.CC **Suggested Assessment: Drawing 0-10 (KCC 3&4), Sorting Attribute Blocks (KCC3)** Formative Assessments- Common Core Georgia Performance Standards- Kindergarten Unit 2: www.georgiastandards.org Performance Assessments

Technology: Videos, Websites, Links
Mega Math Destination Math Xtramath.org Ipad Apps http://www.internet4classrooms.com/common_core/count_100_ones_tens_counting_cardinality_kindergarten_math_mathematics.htm