Grade: Kindergarten
Unit 4-Counting and Matching
Numerals 11-20
	Subject: Math
	  • **Time Frame: 4-5 weeks**
	  • **Domains: Counting and Cardinality, Operations and Algebraic Thinking, Numbers in Base Ten**	

Standards	Content Standards: K.CC.3 K.CC.1 K.CC.4 K.CC.2 K.OA.1 K.CC.5 K.NBT.1 http://www.corestandards.org/wp-content/uploads/Math_Standards.pdf	Practice Standards: MP 1, 2, 3, 4, 5, 6, 7, 8
Enduring Understandings	1. Counting tells us how many there are in a group regardless of the order in which the objects are counted. 2. The last number said when counting, tells the total number of objects counted. 3. Numerals are the symbols we read and write to communicate quantities (numbers). 4. One quantity is either greater than, less than, or equal to another quantity. 5. Teen numbers are composed of a group of 10 and some ones. 6. We can compose numbers. 7. We can decompose numbers.	
Essential Questions	1. Why do we count? 2. How are numerals used? 3. How can two quantities be compared? 4. How can we compare numbers? 5. What are teen numbers composed of? 6. How can we compose numbers? 7. How can we decompose numbers?	

Vocabulary	Teen numbers, place value, ones place, tens place, ones, tens, rods, ten frame, compose, decompose, symbols, plus, more, less
	           See Common Core Georgia Performance Standards Mathematics Glossary
	        https://www.georgiastandards.org/Common-Core/Documents/CCGPS_Mathematics_Glossary.pdf	

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.
 	
• **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**
 	
• **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**
 	
• **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. S/he 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.OA.1. Represent addition and subtraction with objects, fingers, mental images, drawings*, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations. * Drawings need not show details, but should show the mathematics in the problem. (This applies wherever drawings are mentioned in the Standards.)	**K.OA.1.** Using addition and subtraction in a word problem context allows students to develop their understanding of what it means to add and subtract. Students should use objects, fingers, mental images, drawing, sounds, acting out situations and verbal explanations in order to develop the concepts of addition and subtraction. Then, they should be introduced to writing expressions and equations using appropriate terminology and symbols which include "+," "–," and "=". • Addition terminology: add, join, put together, plus, combine, total • Subtraction terminology: minus, take away, separate, difference, compare Students may use document cameras or interactive whiteboards to represent the concept of addition or subtraction. This gives them the opportunity to communicate their thinking.
K.NBT.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 by ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	**K.NBT.1** Special attention needs to be paid to this set of numbers as they do not follow a consistent pattern in the verbal counting sequence. • Eleven and twelve are special number words • "Teen" means one "ten" plus ones • The verbal counting sequence for teen numbers is backwards – we say the ones digit before the tens digit. For example "27" reads tens to ones (twenty-seven), but 17 reads ones to tens (seven-teen) • In order for students to interpret the meaning of written teen numbers, they should read the number as well as describe the quantity. For example, for 15, the students should read "fifteen" and state that it is

| | one group of ten *and* five ones and record that 15 = 10 + 5

Teaching the teen numbers as one group of ten and extra ones is foundational to understanding both the concept and the symbol that represent 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 ones and four additional ones. Students should connect the representation to the symbol "14." Students should recognize the pattern that exists in the teen numbers; every teen number is written with a 1 (representing one ten) and ends with the digit that is first stated. |

Resources
Daily Routine: Math Expressions Teacher Edition Volume 1 or 2: Daily Routines xxxi: Omit Using the Tens and Ones Flip Chart Engage New York – Module 5 http://www.engageny.org/resource/kindergarten-mathematics-module-5 Common Core Georgia Performance Standards- Kindergarten Unit 3: Use tasks at teacher's discretion Unit can be found at https://www.georgiastandards.org/Common-Core/Common%20Core%20Frameworks/CCGPS_Math_K_Unit3FrameworkSE.pdf

Unit Assessments
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: 0-20 Counting Assessment (KCC3&4)**

Technology: Videos, Websites, Links
Mega Math Destination Math Xtramath.org Ipad Apps