Grade: K **FCPS 2023-2024 Math Unit 1 Framework** **Unit 1** Unit 2 Unit 3 Unit 4

KY Math Standard (link) FCPS Kindergarten Trajectory K Unit 1 Google Link Priority Content (link)

Unit Title: Counting and Comparing	**Estimated Time Frame: 41 days**
Essential Standards: **K.CC.1, K.CC.2, K.CC.3, K.CC.4, K.CC.5** *Supporting Standards:* **K.MD.3, K.MD.2**	
Big Idea(s) CRA explanations for Kindergarten Unit 1	
NUMBER: STRUCTURE & QUANTITY: Numbers have a specific order (forward & backward) and value. Numbers are identified by 3 main features: symbol (2), word (/two/), and quantity (**:**) Numbers can be structured (composed/decomposed) in many ways.	
Essential Questions:	**Common Misconceptions:**
What is a number and what does it mean to me? How do we use numbers every day? How many ways can we count?	Numbers and letters are the same Multiple meanings of things Number are drawings with no meaning **Story Problems - KEY WORDS!** Be aware key words have **MULTIPLE** meanings and can create misconceptions. It is best to use reasoning and identify the action and unknown. For example: If there are 10 girls and 8 boys in our class. How many **more** girls are there than boys?

Standards for Mathematical Practice (**bolded** practices are emphasized in this unit)	**Kentucky Interdisciplinary Literacy Practices**
MP.1. Make sense of problems and persevere in solving them. **MP.2. Reason abstractly and quantitatively.** MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. **MP.8. Look for and express regularity in repeated reasoning.**	1. Recognize that text is anything that communicates a message. 2. Employ, develop, and refine schema to understand and create text. 3. View literacy experiences as transactional, interdisciplinary and transformational. 4. Utilize receptive and expressive language arts to better understand self, others, and the world. 5. Apply strategic practices, with scaffolding and then independently, to approach new literacy tasks. **6. Collaborate with others to create new meaning.** **7. Utilize digital resources to learn and share with others.** **8. Engage in specialized, discipline specific literacy practices.** **9. Apply high level cognitive processes to think deeply and critically about text.** 10. Develop a literacy identity that promotes lifelong learning.

Essential Standards: **KAS Content Standards** CRA explanations for Kindergarten Unit 1	**Prerequisite Skills & Essential Vocabulary**	**Sample Learning Intentions* & Sample Success Criteria***
KY.K.CC.1 Count **a. Count to 100 by ones and by tens.** **b. Count backwards from 30 by ones.** Students verbally count forward by ones (1,2,3,4. . .) to 100 Students verbally count forward by tens (10, 20, 30. . .) to 100. Students verbally count backwards by ones (30, 29, 28, 27. . .) from 30. Coherence KY.K.CC.1→KY.1.NBT.1	**count** – number word sequences (counting forward & backward) **number** – Three aspects of a number include symbol, verbal, quantity. (for ex: 4, “four”, ::) **backward** **forward**	I am learning to count forward and backwards. ● I can verbally count forward from **1-10.** ● I can verbally count backwards from **10-1.**

KY.K.CC.2 Count forward beginning from a given number within the known sequence within 100 (instead of having to begin at 1). Students verbally count forward starting at a number other than one (58, 59, 60, 61, 62. . .) within 100. Coherence KY.K.CC.2→KY.1.NBT.1	Forward number word sequence 1-10 **number** – Three aspects of a number include symbol, verbal, quantity. (for example: 4, "four", ::) **Numeral** - a symbol to represent the quantity **Backward** **forward** **order** **sequence**	I am learning to verbally count forward from a given number. ● I can verbally count forward from a given number **within 10.** ● I can name the number before and after a given number within 5.
KY.K.CC.3 Represent numbers. **a. Write numbers from 0 to 20.** **b. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).** Students write all numerals in the range of 0-20 (1, 2, 3, 4, 5…) When students are given a written numeral, represent with objects within 20 (4…). Coherence KY.K.CC.3→KY.1.NBT.1	Object counting 1-5 **labels** – numbers as "names" **sequence** **count**	I am learning to represent numbers with objects and symbols. ● I can identify numerals 0-5. ● I can write numerals 0-5. ● I can label a set of objects using numerals 0-5. ● I can sequence numbers 0-5.

KY.K.CC.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.** (see corresponding notes below) 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.** (see corresponding notes below) c. **Understand that each successive number name refers to a quantity that is one larger.** (see corresponding notes below) Students understand each object being counted is given only one number name and this naming occurs in the correct sequence (one, two, three, four. . .). Once students conclude counting a group of objects in different arrangements, the student correctly identifies the amount of objects in that group (rather than recounting the group). Students verbally count by ones, connecting each number word with a quantity (or collection) as the count progresses. Coherence KY.K.CC.4→KY.1.OA.5	Object counting 1-5 **count** – quantity – counting to tell how many **number** – Three aspects of a number include symbol, verbal, quantity. (for example: 4, “four”,::) **sequence**	I am learning to relate numbers and quantities. ● I can count objects to 10 (one-to-one correspondence) ● I can match a number to a group of items up to 10. ● I can identify how many items are in a group up to 10. (cardinality) ● I can tell that the next number is one more or one larger within the numbers to 10. ● I can figure out what is one more or one fewer than a number.
KY.K.CC.5 Given a number from 1-20, count out that many objects. **a. Count to answer “how many?” questions with as many as 20 things arranged in a line, a rectangular array, or a circle.**	**quantity**	I am learning to tell how many objects there are within a group. ● I can tell how many objects there are when counting objects up to 10 in a … (line, circle, scatter, 5 frame, domino pattern)

b. Count to answer "how many?" questions with as many as 10 things in a scattered configuration. When presented with a numeral (in the range of 1-20), the student creates a collection of a like amount. When presented with a collection (in the range of 1-20) the student connects that collection to the correct numeral. When presented with collections in structured arrangements (line, circle, array and others) the student determines the quantity of that collection by counting.  When presented with collections in an unstructured arrangement the student determines the quantity of that collection by counting. Coherence KY.K.CC.5→KY.1.NBT.1		• I can count out objects to show the quantity to match the numerals within 10.
Supporting Standards:		
KY.K.MD.3 Classify and sort objects or people by attributes. Limit objects or people in each category to be less than or equal to 10. For a group of 10 (or less) objects/people, students compare and order objects according to a common measurable attribute (height, weight, length, width, depth) shared by the objects (arranging 4 blocks from heaviest to lightest; arranging classmates from tallest to shortest). Coherence KY.K.MD.3→KY.1.MD.4	**Sort** **Equal** **Less than** **More than** **Same** **Tall** **Short** **Thick** **Thin** **Colors** (red/blue/etc…) **Shapes**	I am learning to sort objects into categories. • I can compare objects based on their attributes. • I can order objects by their common attributes. • I can sort objects in categories of size, shape, and color. • I can describe my way of sorting by using attribute words.

KY.K.MD.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. Students consider and compare a common measurable attribute shared by two objects (Which cup is taller and which is shorter? Which bucket of sand is heavier and which is lighter?). Coherence KY.K.MD.1→KY.1.MD.	**Sort** **Equal** **Less than** **More than** **Same** **Taller** **Shorter** **Thicker** **Thinner** **Heavier** **Lighter**	I am learning to compare two objects. ● I can describe the length of an object using non-standard measurement. ● I can describe the weight of an object using non-standard measurement.

*Disclaimer: Success Criteria is the evidence students must produce to demonstrate learning. These examples are not comprehensive.

Needed Manipulatives and Tools

number lines (student made or open/empty)
Five-frames
Ten-frames
counting collections (video example)
Unifix cubes
Counters (many different kinds)
Cups/bowls (for sorting)
Attribute Blocks
Pattern blocks
Math Journal

Anchor Materials/Resources
Investigations Unit 1 - Counting People and Sorting Buttons **Investigations Unit 2 - Counting Quantities and Comparing Lengths** **Classroom routines – Daily Planner Unit 1 Attendance (Count Around); Calendar; Counting Jar & Today's Question** **Classroom Routines- Daily Planner - Unit 2** **SFUSD Unit K.2 - Numbers to 10** **SFUSD Unit K.3 - Compose and Decompose Numbers within 10** **Diagnostic testing (such as SNAP/AVMR) (if school/teacher choice)** **KY Numeracy Project username: bluegrass password: math **great source for additional workshop tasks** **Math Learning Center Math Apps** **MLC: The Kid Count Number Line** **MLC: Numbers & Combinations to 10 through the Year** **MLC: Oct Calendar supplement** **TEDD - Counting Collections** **Choral Counting & Counting Collections by Megan L. Franke, Elham Kazemi, and Angela Chan Turrou Stenhouse Publishers** ****NOTE: There is a difference between Math Talks and Number Talks. Make sure you know the difference!!** **Math Talks - SFUSD Math Talks** Number Talk Images FCPS Fluency documents & assessments SFUSD - https://www.sfusdmath.org/fluency.html

Summative Assessment
Link to Common Unit Assessment **This link is to the interview assessments our teacher team developed in 2020. While we DO NOT have a mandated district Common assessment, these are still available to you for your use in formatively assessing your students progress.** **These are the following assessments you can do individually or whole group with students to determine their skill level beginning, during, and after the unit:** Write & Identify numbers 0-5 Identify numbers before and after 0-5 Sequence and match the amounts 0-5 Identify one more or/and one less to 5 Identify the group that is greater within 0-5 Orally count to 10 in sequence Count objects to 10 (2 ways) Identify & write numbers 0-10 in sequence