Dear Parents,
We will begin our next unit of study in math soon. The information below will serve as an overview of the unit as you work to support your child at home. If you have any questions, please feel free to contact me. I appreciate your ongoing support.

Sincerely,
Your Child's Teacher

Unit Name: Understanding the Relationship between Numbers and Quantities

North Carolina Content State Standards:

NC.K.CC.1 Know number names and recognize patterns in the counting sequence by:
- Counting to ~~100 by ones.~~ Rote sequence to 20.
- ~~Counting to 100 by tens.~~

NC.K.CC.2 Count forward beginning from a given number within the known sequence, instead of having to begin at 1.

NC.K.CC.3 Write numbers from ~~0 20~~ (0-5 and then 6-10). Represent a number of objects with a written numeral ~~0 20~~ (0-5 and then 6-10), with 0 representing a count of no objects.

NC.K.CC.4 Understand the relationship between numbers and quantities.
- 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 (one-to-one correspondence).
- Recognize that the last number named tells the number of objects counted regardless of their arrangement (cardinality).
- State the number of objects in a group, of up to 5 objects, without counting the objects (perceptual subitizing).

NC.K.CC.5 Count to answer "How many?" in the following situations:
- Given a number from ~~1 20~~ (1-10), count out that many objects.
- Given up to ~~20~~ (10) objects, name the next successive number when an object is added, recognizing the quantity is one more/greater.
- Given ~~20~~ (10) objects arranged in a line, a rectangular array, and a circle, identify how many.
- Given ~~10~~ (5) objects in a scattered arrangement, identify how many.

NC.K.MD.1 Describe measurable attributes of objects; and describe several different measurable attributes of a single object.

NC.K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

NC.K.G.3 Identify squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders and spheres as two-dimensional or three-dimensional.

Math Language:

- **Longer**
- **Shorter**
- **More**
- **Less**
- **Equal**
- **Straight Lines**
- **Curved Lines**
- **Vertices**
- **Two-Dimensional**
- **Three-Dimensional**
- **Circle**
- **Square**
- **Seven**
- **Hexagon**
- **Triangle**
- **Rectangle**
- **Counting**
- **Group**
- **Set**
- **Zero**
- **One**
- **Two**
- **Three**
- **Four**
- **Five**
- **Six**
- **Seven**
- **Eight**
- **Nine**
- **Ten**
- **Rote Counting**

Unit Overview:

This unit focuses on developing **number sense** through understanding the relationships between number and quantities. Students begin to develop number sense by relating the oral word, set of objects, and number symbol to each other. A solid foundation of number sense starts children on a journey to becoming great mathematicians. Students will engage in a variety of activities to help develop a strong sense of number during this unit and the remainder of the school year. Students will begin to:

- rote count to 20, saying numbers in the correct sequence
- write and identify numbers (0-5 and 6-10)
- subitize up to 5, which is recognizing a quantity without counting (instantly knows the number of dots on a die/dice)
- count out 1-10 objects
- identify one more (up to 10 objects)
- connect a number to a group of objects

As Kindergartners begin to understand number relationships, they say number names in the standard order when counting objects. To become effective counters, students develop strategies for tracking the objects counted in a variety of ways. They match each object with only one number name (one-to-one correspondence) and keep track of which objects have been counted and not been counted. They know the last number counted in a group represents the total amount in that group (cardinality), answering the question "How many are there?" We practice these skills and strategies throughout this unit. Additionally, we continue to focus on the concepts of Unit 1 by describing and sorting objects (including shapes) by attributes. In this unit, students will count the number of objects in the sorted groups and be introduced to the concepts of two-dimensional and three-dimensional shapes.

Skills/Strategies:

Counting to 20:

- Have students count as they complete home activities, including tying shoes, making beds, combing hair, etc.
- In the car, encourage your child to count out loud until you get to the next stop sign, business, or house.
- In the car, call out a number. Ask your child to count beginning at that number, stopping at 20.

Writing Numerals:

- Say a number aloud, and have your child write it.
- Show your child a group of cookies or other objects, and have your child write a numeral to represent the group.
- Practice, Practice, Practice

Subitizing:

- Show dice dot patterns and domino patterns to your child (0-5). Have your child practice telling "how many" without counting the dots.

Counting Objects:

Students are expected to be able to identify how many are in a given set or group. It is important for students to develop a strategy that makes sense to them. To determine how many are in the set, they may use these strategies:

- Slightly move the object as they count each one
- Move objects as they count from one area on the table to another

- Point and count each object starting from the left and moving to the right to determine the total number in the group.
- Point to one object as it is counted
- Look without touching when counting the objects
- Use one counting word for every object touched

When the objects are on paper and can't be moved, possible strategies may include:

- Crossing out each object as they count
- Circling the first object counted, so they know where they started
- Write the numeral on the object as they are counting

Video Support:

Video support can be found on The WCPSS Academics YouTube Channel (http://tinyurl.com/WCPSSAcademicsYouTube).

- ES K Math Number and Quantity Relationships
- ES K Math Describing Attributes
- ES K Math Shapes

Additional Resources:

- NCDPI Additional Resources
- Counting Songs:
  - Learn to Count from Super Simple Songs
  - Count to 20
  - Number Rock
  - Count to 20 and Workout
- Writing Numerals
  - Dr. Jean Numeral Song
  - Download and play the App – 123 Numbers Count
- Count to answer "How Many?"
  - How Many? by English Sing Sing
  - Counting Fruits by English Sing Sing
- Sort and count objects and shapes
  - Play: Starfall Shape Sort (3 levels)
  - Watch: Sesame Street: Sorting Shapes
  - Read: Shapes that Roll by Karen Berman Nagel

Questions to Ask When Helping Your Child with Math Homework

Keep in mind that homework in elementary schools is designed as practice. If your child is having problems, please let the classroom teacher know. When helping your child with his/her math homework, you don't have to know all the answers! Instead, we encourage you to ask probing questions so your child can work through the challenges independently. Some examples may include the following:

- What is the problem you're working on?
- What do the directions say?
- What do you already know that can help you solve the problem?
- What have you done so far and where are you stuck?
- Where can we find help in your notes?
- Are there manipulatives, pictures, or models that would help?

- Can you explain what you did in class today?
- Did your teacher work examples that you could use?
- Can you go onto another problem & come back to this one later?
- Can you mark this problem so you can ask the teacher for an explanation tomorrow?