

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: Using Numbers to Explore Our Mathematical Community

North Carolina Content State Standards:

NC.1.NBT.1 Count to 150, starting at any number less than 150.

NC.1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones.

- Unitize by making a ten from a collection of ten ones.
- Model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.
- ~~Demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.~~ (Strikethrough means this portion is not covered in the unit.)

NC.1.NBT.7 Read and write numerals, and represent a number of objects with a written numeral, ~~to~~ 100 to 20.

NC.1.MD.4 Organize, represent, and interpret data with up to three categories.

- Ask and answer questions about the total number of data points.
- Ask and answer questions about how many in each category.
- Ask and answer questions about how many more or less are in one category than in another.

Math Language:

- | | | | |
|-----------------|---------------|--------------------|-----------------|
| • Numeral | • Same | • Ten Frame | • Decade Number |
| • Data | • Different | • Place Value | • Groups of Ten |
| • Picture Graph | • Question | • Tens | • Number |
| • More | • Collect | • Ones | • More Than |
| • Most | • Data | • Leftovers/Extras | • Less Than |
| • Less | • Arrange | • Efficient | • Counting All |
| • Fewer | • Group | • Teen Number | • Set |
| • Fewest | • Represent | • 10-Stick | • Counting |
| • Least | • Count | • Dot Array | |
| • Compare | • Number Line | | |

Unit Overview:

The focus of this unit is on numbers and data. It will serve to develop our classroom mathematics community by establishing routines. Students will have opportunities to engage in discourse (mathematical talk), which includes sharing their thinking, listening to the ideas of others, and asking questions to clarify their own understanding. We will build a respectful community that allows for productive struggle. This is achieved as they focus on counting to 150, decomposing teen numbers into a ten and some ones, reading, writing, and representing numbers to 20, and organizing, representing, and interpreting data. Students continue to develop their number sense and understand why numbers are important by exploring numbers in their world. The number sense built in this unit will be used throughout the year as students apply the written numeral to number sentences, word problems, and models.

Students develop a conceptual understanding of the numbers 11-19 as a ten and some ones through counting, grouping, and modeling. They will use a variety of models to show 11-19.

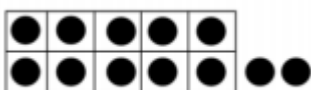
Students build fluency with counting to 150, and reading and writing numbers to 20. Throughout the unit, students should be uncovering applications of numbers in their world, helping them see that math is everywhere and useful.

Students will collect and use categorical data (e.g., eye color, shoe size, age) to answer a question. The data collected will be organized in a chart or table, representing up to three categories. Once the data are collected, students will interpret the data to determine the answer to the question posed. They also describe the data by noting particular aspects, such as the total number of answers, which category had the most/least responses, and interesting differences/similarities between the categories.

Additionally, this unit will help foster a growth mindset in which all students can be mathematicians and learn mathematics at the highest levels. People with a fixed mindset think you are either smart or not. Those with a growth mindset believe you learn and develop abilities by perseverance, dedication, and hard work. We believe in helping students develop a growth mindset and becoming great mathematicians.

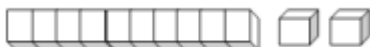
Skills/Strategies:

- Count to 150, starting at any number less than 150
 - Sing number songs
 - Practice rote counting aloud to 150
- Group ten ones into one ten
 - Ten Frame
 - Provide your child with a pile of objects, such as 12. Ask, “Do you have enough to make a ten? Would you have any leftovers? Prove it.” Your child could prove it using a ten frame.



I had 12 counters. I had enough to make 10 because I filled the ten frame with ten counters. I had 2 leftovers because there were two extras that did not fit into the ten frame. So, I made one ten and 2 extras which is the same as 12.

- Grouping connecting cubes into groups of 10
 - Provide your child with a pile of connecting cubes, such as 12. Ask, “Do you have enough to make a ten? Would you have any leftovers? Prove it.” Your child could prove it by connecting the cubes.



I had 12 cubes. I had enough to make a ten because I was able to connect 10 ones to make one group of ten. I had 2 leftovers. The number 12 has 1 ten and two leftovers.

- Read and write numbers to 20 and use a numeral to represent the number of objects in a group
 - Have your child count objects around the house and write the number to show the amount counted.
 - Show your child a number and have him/her count out that many objects to make a group.
- Collect, organize, and interpret data with up to three categories

Video Support:

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

- [ES 1 Math Read, Write, & Count to 120 Tens Frames](#)
- [ES 1 Math Read, Write, & Count to 120 Representing Numbers](#)

Additional Resources:

- [NCDPI Additional Resources](#)
- Video: [Great Mathematicians Learn from their Mistakes](#)
- Video: [Great Mathematicians Listen and Learn from Each Other](#)
- Video: [Great Mathematicians Persevere when Things are Difficult](#)
- http://www.abcya.com/interactive_100_number_chart.htm
- <http://illuminations.nctm.org/Activity.aspx?id=3565>
- <https://www.khanacademy.org/math/early-math/cc-early-math-counting-topic>
- http://www.abcya.com/100_number_grid.htm
- <https://www.khanacademy.org/math/early-math/cc-early-math-measure-data-topic/cc-early-mathdata/e/sort-groups-by-count>
- <https://www.khanacademy.org/math/early-math/cc-early-math-measure-data-topic/cc-early-mathdata/e/solving-problems-with-picture-graphs-1>

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?