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: Building a Mathematical Community through Exploring Attributes

North Carolina Content State Standards:

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

NC.K.MD.2: Directly compare two objects with measurable attributes in common, to see which object has "more of/less of" the attribute (without counting), and describe the difference.

NC.K.MD.3: Classify objects into given categories; ~~count the numbers of objects in each category and sort the categories by count.~~ (strikeout means it is not covered in the unit)

Supporting Standard within this Unit:
NC.K.G.1: Describe objects in the environment using names of shapes, and describe the relative positions of objects using positional terms.

Math Language:

- **Longer**
- **Shorter**
- **More**
- **Less**
- **Equal**
- **Taller**
- **Straight Lines**
- **Curved Lines**
- **Sides**
- **Vertex**
- **Vertices**
- **Square**
- **Circle**
- **Triangle**
- **Rectangle**
- **Hexagon**
- **Attributes**
- **Above**
- **Below**
- **Beside**
- **In front of**
- **Behind**
- **Next to**

Unit Overview:

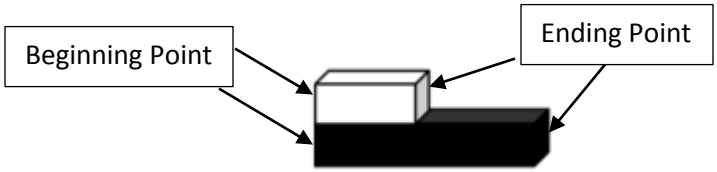
The focus of this unit is on understanding and describing attributes of objects. It will serve to develop our classroom mathematics community by establishing routines. Students will have opportunities to engage in discourse (mathematical talk), which includes sharing their thinking, listening to the ideas of others, and asking questions to clarify their own understanding, while describing, comparing, and classifying objects and shapes based on their measurable attributes (such as length, weight, size). In NC.K.MD.1, students will describe the measurable attributes of an object. For example, a student will be able to answer "Which is heavier, this book or the pencil? Explain how you know." In NC.K.MD.2, students compare two objects to see which object has "more of/less of" the attribute. For example, students may be asked, "Compare these two blocks. What do you notice about them?"

Sample responses could include: "The black block is a lot <u>longer</u> than the white block." OR "The white block is a lot <u>shorter</u> than the black block." In NC.K.MD.3, students begin to sort objects based a measurable attribute. In NC.K.G.1, students identify the name of shapes and describe the location of an object using positional words.

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:

- Students will need to make direct comparisons between two objects. They will need to identify a beginning point and an ending point of each object to determine which object is longer, shorter or if they are the same.



- Sentence frames to help students compare and contrast two objects or figures:
  - These two objects are the same because both have _____. These two objects are different because _____.
  - I know _____ (object name) is shorter than the _____ (second object's name) because _____. I know (object name) is longer than the _____ (second object's name) because _____.
  - I know _____ (object name) is heavier than the _____ (second object's name) because _____. I know (object name) is lighter than the _____ (second object's name) because _____.

Video Support:

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

- ES K Math Describing Attributes

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

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?