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 Place Value in the Context of Metric Measurement

North Carolina Content State Standards:

NC.5.NBT.1

Explain the patterns in the place value system from one million to the thousandths place.
- Explain that in a multi-digit number, a digit in ones place represents 10 times as much as it represents in the place to its right, and 1/10 of what it represents in the place to its left.
- Explain patterns in products and quotients when numbers are multiplied by 1,000, 100, 10, 0.1, 0.01 and/or divided by 10 and 100.

NC.5.NBT.3

Read, write, and compare decimals to thousandths.
- Write decimals using base-ten numerals. number names, and expanded form.
- Compare two decimals to thousandths based on the value of the digits in each place, using >,=, and < symbols to record the results of comparisons.

NC.5.MD.2

Represent and interpret data.
- Collect data by asking a question that yields data that changes over time.
- Make and interpret a representation of data using a line graph.

Determine whether a survey question will yield categorical or numerical data, or data that changes over time.

Math Language:

- Base Ten
- Base Ten Blocks
- Units
- Place Value Chart
- Grams
- Equalities
- Less Than
- Base Ten Drawing
- Product
- Data
- Place Value
- Thousandths
- Grids
- Meters
- Kilograms
- Inequalities
- Number Line
- Estimate
- Quotient
- Line Graph
- Tenths
- Flats
- Decimal
- Centimeters
- Milliliters
- Equal to
- Word Form
- Solution
- Patterns
- Hundredths
- Rods
- Metric System Millimeters
- Liters
- Greater Than
- Expanded Form
- Decimal Form
- Convert

Unit Overview:

Within this unit, students build on their knowledge of multiplicative comparison from grade four to explore place value from one million down to thousandths. They use various tools (ex. calculator, number lines, meter sticks, place value blocks) to notice patterns when a number is continually multiplied or divided by ten to discover that a digit in one place is ten times as much as the digit to the right and ten times less than the digit to the left. Students apply place value concepts to solve metric conversion problems using a conversion table, and use length and area models to compare decimals to thousandths. Students collect data using metric measurement that yields change over time and use it to make and interpret line graphs.

Wake County Public Schools, Mathematics Unit Overview for Parents
This document should not replace on-going communication between teachers & parents.
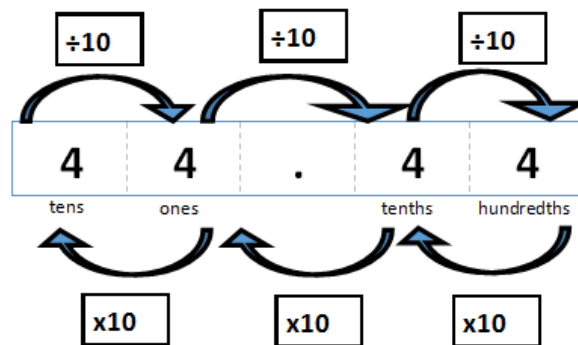
Skills/Strategies:

Students will be able to:

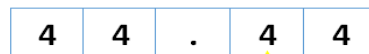- Compare decimals to thousandths and record comparison results using <, >, = symbols
- Collect data by asking a survey question that yields data over time
- Interpret data on a line graph and use data to make a line graph
- Read and write decimals to thousandths using base ten numerals, number names, and expanded form

Place Value with Decimals:

In the number 44.44 each digit is 4, but the value of the digits is different because of the placement.

| 4 | 4 | . | 4 | 4 |

The 4 that the arrow points to is 1/10 of the 4 to the left and 10 times to the 4 to the right. The 4 in the ones place is 1/10 of 40 and 10 times 4 tenths.

| 4 | 4 | . | 4 | 4 |

| ÷10 | ÷10 | ÷10 |

| 4 | 4 | . | 4 | 4 |
| tens | ones | | tenths | hundredths |

| x10 | x10 | x10 |

Video Support:

- None for this unit

Additional Resources:

- NCDPI Additional Resources

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?