

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 Data to Solve Problems

North Carolina Content State Standards:

NC.3.MD.3

Represent and interpret scaled picture and bar graphs:

- Collect data by asking a question that yields data in up to four categories
- Make a representation of data and interpret data in a frequency table, scaled picture graph, and/or scaled bar graph with axes provided.
- Solve one and two-step “how many more” and “how many less” problems using information from these graphs.

Supporting Standards

NC.3.NBT.2

Add and subtract whole numbers up to and including 1,000

- Use estimation strategies to assess reasonableness of answers
- Model and explain how the relationship between addition and subtraction can be applied to solve addition and subtraction problems
- Use expanded form to decompose numbers and then find sums and differences

NC.3.OA.8

Solve two-step word problems using addition, subtraction, and multiplication, representing problems using equations with a symbol for the unknown number.

Math Language:

- | | | | |
|--------|-----------------|--------------|-------------------|
| • Data | • Picture Graph | • Bar Graph | • Frequency Table |
| • Axes | • Scale | • Horizontal | • Vertical |

Unit Overview:

The focus of this unit is on interpreting scaled picture graphs and bar graphs by answering specific questions, including comparison questions, about a data set. Students will also use a frequency table to generate scaled picture graphs and bar graphs while working with up to four categories of data. This work includes solving problems that involve addition and subtraction, which allows students to strengthen and apply what they are learning.

Skills/Strategies:

- Collect data with up to four categories by asking questions
- Organize data into frequency tables
- Represent data collected by constructing a scaled picture graph and/or a scaled bar graph
- Analyze and interpret data from a graph
- Solve one- and two-step problems using data presented in scaled picture graphs and/or scaled bar graphs using addition and subtraction
 - Comparison problems should include:
 - How many more?
 - How many less/fewer?

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?