

## **FIRST GRADE MATHEMATICS**

### **UNIT 1 STANDARDS**

Dear Parents,

We want to make sure that you have an understanding of the mathematics your child will be learning this year. Below you will find the standards we will be learning in Unit One. Each standard is in bold print and underlined and below it is an explanation with student examples. Your child is not learning math the way we did when we were in school, so hopefully this will assist you when you help your child at home. Please let your teacher know if you have any questions



#### **MGSE1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.**

This standard calls for students to rote count forward to 120 by Counting On from any number less than 120. This standard also calls for students to read, write and represent a number of objects with a written numeral (number form or standard form). These representations can include cubes, place value (base 10) blocks, pictorial representations or other concrete materials. As students are developing accurate counting strategies they are also building an understanding of how the numbers in the counting sequence are related—each number is one more (or one less) than the number before (or after).

In first grade, students build on their counting to 100 by ones and tens beginning with numbers other than 1 as they learned in Kindergarten. Students can start counting at any number less than 120 and continue to 120. Although not required by the standards, it is important for students to also count backwards from a variety of numbers. It is important for students to connect different representations for the same quantity or number. Students use materials to count by ones and tens to build models that represent a number. They connect these models to the number word they represent as a written numerals. Students learn to use numerals to represent numbers by relating their place-value notation to their models.

They build on their experiences with numbers 0 to 20 in Kindergarten to create models for 21 to 120 with grouped (examples: dried beans and a small cup for 10 beans, linking cubes, plastic chain links) and pre-grouped materials (examples: base-ten blocks, dried beans and beans sticks (10 beans glued on a craft stick), strips (ten connected squares) and squares (singles), ten-frame, place-value mat with ten-frames, hundreds chart and blank hundreds chart). Students represent the quantities shown in the models by placing numerals in labeled hundreds, tens, and ones columns. They eventually move to representing the numbers in standard form, where the group of hundreds, tens, then singles shown in the model matches the left-to-right order of digits in numbers. Listen as students orally count to 120 and focus on their transitions between decades and the century number.

#### **MGSE1.MD.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.**

##### **This Standard continues throughout the 1<sup>st</sup> grade year.**

This standard calls for students to work with categorical data by organizing, representing and interpreting data. Students should have experiences posing a question with 3 possible responses and then work with the data that they collect. For example:

Students pose a question and the 3 possible responses: *Which is your favorite flavor of ice cream? Chocolate, vanilla or strawberry?* Students collect their data by using tallies or another way of keeping track. Students organize their data by totaling each category in a chart or table. Picture and bar graphs are introduced in 2<sup>nd</sup> Grade.

<b>What is your favorite flavor of ice cream?</b>	
Chocolate	12
Vanilla	5
Strawberry	6

Students interpret the data by comparing categories.

Examples of comparisons:

- What does the data tell us? Does it answer our question?
- More people like chocolate than the other two flavors.
- Only 5 people liked vanilla.
- Six people liked Strawberry.
- 7 more people liked Chocolate than Vanilla.
- The number of people that liked Vanilla was 1 less than the number of people who liked Strawberry.
- The number of people who liked either Vanilla or Strawberry was 1 less than the number of people who liked chocolate.
- 23 people answered this question.

Picture graphs and bar graphs are not introduced until 2<sup>nd</sup> grade. Students in first grade are asked to construct tables and charts. Teachers may introduce vocabulary words to students in first grade as a pre-teaching opportunity.