Dear First Grade Families,

We are about to begin our 2nd module in mathematics. In this letter, we will share a grade-specific overview of the year, as well as information about our current module.

**Summary of the Year**

First grade mathematics is about:

(1) developing understand of addition and subtraction, and strategies for addition and subtraction within 20;

(2) developing understanding of whole number relationships and place value, including grouping tens and ones;

(3) developing understanding of linear measurement and measuring lengths as iterating length units;

(4) reasoning about attributes of, and composing and decomposing geometric shapes.

The key areas of focus for K-2 are addition and subtraction – concepts, skills and problem solving. The required **fluency** for first grade is add and subtract within 10.

The learning goal for each student is to *achieve mastery by the end of the school year*. Along the way teachers and students will celebrate what the students can do now and identify what the students need to work on next.

**A Story of Units**

The yearly curriculum is broken into modules (units), whose sequence is as follows:

Module 1: Sums and Differences to 10

**Module 2: Introduction to Place Value Through Addition and Subtraction Within 20**

Module 3: Ordering and Comparing Length Measurements as Numbers

Module 4: Place Value, Comparison, Addition and Subtraction of Numbers to 40

Module 5: Identifying, Composing, and Partitioning Shapes

Module 6: Place Value, Comparison, Addition and Subtraction of Numbers to 100

**Module 2: Overview**

In Module 2, students add and subtract within 20. Work begins by modeling “adding and subtracting across ten” in word problems and with equations. Solutions involving decomposition and composition like that shown to the right for 8 + 5 reinforce the need to “make 10.” In Module 1, students loosely grouped 10 objects to make a ten. They now transition to conceptualizing that ten as a single unit (using 10 linking cubes stuck together, for example). This is the next major stepping-stone in understanding place value, learning to group “10 ones” as a single unit: 1 ten. Learning to “complete a unit” empowers students in later grades to understand “renaming” in the addition algorithm, to add 298 and 35 mentally (i.e., 298 + 2 + 33), and to add measurements like 4 m, 80 cm, and 50 cm (i.e., 4 m + 80 cm + 20 cm + 30 cm = 4 m + 1 m + 30 cm = 5 m 30 cm).

Please see the attached page for objectives specific to Module 2.

If at any time throughout Module 2 you have questions or concerns regarding your child’s progress, please feel free to contact his or her teacher.

Sincerely,

MUFSD 1st Grade Teachers

**Module 2 Objectives:**

Many of the objectives in Module 2 are the same as Module 1, with the addition of those relating to place value. Mastery of these standards is not expected by the end of Module 2, but is expected by the end of the school year. These objectives are ongoing and will reappear in future modules, as well as in our daily math rituals.

* Model and solve addition and subtraction word problems using objects, drawings, and equations with unknown numbers in different positions.
* Solve word problems with unknown numbers in different position (e.g., 6 + \_ = 8, \_ + 2 = 8, 6 + 2 = \_ ).
* Add three whole numbers whose sum is less than or equal to 20.
* Solve word problems with three whole numbers using objects, drawings and equations.
* Show that adding zero to any number does not change the number (e.g., 4 + 0 = 4).
* Show that changing the order of the addends (up to 3 numbers) does not change the sum (answer).
* Use properties of operations to add and subtract.
* Rewrite a subtraction equation as an addition equation with a missing addend (number).
* Add by counting all, counting on, and recognizing the + 1 means that next number and + 2 means the next number in the counting sequence.
* Subtract by counting back, counting up from, and recognizing the – 1 means the number before, and – 2 means the number that is two numbers before in the counting sequence.
* Add and subtract within 10 with ease.
* Add and subtract within 20 by:
  + counting on and making a ten
  + using the relationship between addition and subtraction
  + using equal but easier numbers (e.g., doubles, doubles plus one, doubles minus one)
* Explain that the equal sign means “same as”.
* Compare the value of both sides of an equation and determine whether the equation is true or false.
* Determine the unknown value in an addition or subtraction equation when two out of three of the numbers in the equation are given.
* Represent 10 as ten ones and the numbers 11-19 as a ten and some ones.
* Represent multiple sets of ten using number names (2 tens is 20).
* Explain the value of each digit in a two-digit number.
* Determine and explain why a two-digit number is greater than, less than, or equal to another two-digit number and record the comparison using the symbols >, <, =.