

**Clarification of Standards for Parents**  
**Grade 1 Mathematics Unit 2**

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 Two. 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.



**Standard MGSE1.NBT.1 is taught in Unit 1. Students should continue building towards 120.**

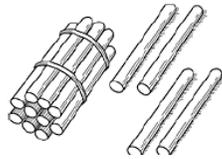
**MGSE1.NBT.1 Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.**

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).

**MGSE1.NBT.2 Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases:**

**a. 10 can be thought of as a bundle of ten ones – called a “ten.”**

This standard asks students to unitize a group of ten ones as a whole unit: a ten. This is the foundation of the place value system. So, rather than seeing a group of ten cubes as ten individual cubes, the student is now asked to see those ten cubes as a bundle – one bundle of ten.



**b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.**

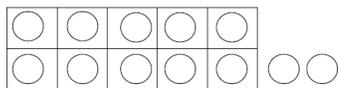
This standard asks students to extend their work from Kindergarten when they composed and decomposed numbers from 11 to 19 into ten ones and some further ones. In Kindergarten, everything was thought of as individual units: —ones|. In First Grade, students are asked to unitize those ten individual ones as a whole unit: —one ten|. Students in first grade explore the idea that the teen numbers (11 to 19) can be expressed as one ten and some leftover ones. Ample experiences with ten frames will help develop this concept.

Example:

For the number 12, do you have enough to make a ten? Would you have any leftover? If so, how many leftovers would you have?

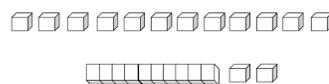
**Student 1:**

I filled a ten-frame to make one ten and had two counters left over. I had enough to make a ten with some left over. The number 12 has 1 ten and 2 ones.



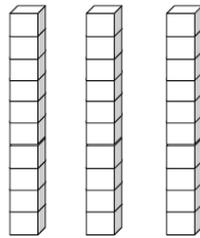
**Student 2:**

I counted out 12 place value cubes. I had enough to trade 10 cubes for a ten-rod (stick). I now have 1 ten-rod and 2 cubes left over. So the number 12 has 1 ten and 2 ones.



**c. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).**

This standard builds on the work of CCGPS.1.NBT.2b. Students should explore the idea that decade numbers (e.g., 10, 20, 30, 40) are groups of tens with no left over ones. Students can represent this with cubes or place value (base 10) rods. (Most first grade students view the ten stick (numeration rod) as ONE. It is recommended to make a ten with unifix cubes or other materials that students can group. Provide students with opportunities to count books, cubes, pennies, etc. Counting 30 or more objects supports grouping to keep track of the number of objects.)



**MGSE1.NBT.7 Identify dimes, and understand ten pennies can be thought of as a dime. (Use dimes as manipulatives in multiple mathematical contexts.)**

**MGSE1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.**

This standard builds on the work in Kindergarten by having students use a variety of mathematical representations (e.g., objects, drawings, and equations) during their work. The unknown symbols should include boxes or pictures, and not letters.

In unit two, students focus on using addition and subtraction to solve word problems within 10.

Teachers should be cognizant of the three types of problems. There are three types of addition and subtraction problems: Result Unknown, Change Unknown, and Start Unknown.

Use informal language (and, minus/subtract, the same as) to describe joining situations (putting together) and separating situations (breaking apart).

Use the addition symbol (+) to represent joining situations, the subtraction symbol (-) to represent separating situations, and the equal sign (=) to represent a relationship regarding quantity between one side of the equation and the other.

A helpful strategy is for students to recognize sets of objects in common patterned arrangements (0-6) to tell how many without counting (subitizing).

**Addition Examples:**

<p><b>Result Unknown</b> There are 9 students on the playground. Then 8 more students showed up. How many students are there now? (<math>9 + 8 = \underline{\quad}</math>)</p>	<p><b>Change Unknown</b> There are 9 students on the playground. Some more students show up. There are now 17 students. How many students came? (<math>9 + \underline{\quad} = 17</math>)</p>	<p><b>Start Unknown</b> There are some students on the playground. Then 8 more students came. There are now 17 students. How many students were on the playground at the beginning? (<math>\underline{\quad} + 8 = 17</math>)</p>
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**MGSE1.OA.6 Add and subtract within 20.**

**a. Use strategies such as counting on; making ten (e.g.,  $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g.,  $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that  $8 + 4 = 12$ , one knows  $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding  $6 + 7$  by creating the known equivalent  $6 + 6 + 1 = 12 + 1 = 13$ ).**

**b. Fluently add and subtract within 10.**

In unit two, students focus on using strategies to add and subtract within 10.

It is important to move beyond the strategy of counting on, which is considered a less important skill than the ones here in 1.OA.6. Many times teachers think that counting on is all a child needs, when it is really not much better than counting all and can become troublesome when working with larger numbers.

Example:  $8 + 7 = \underline{\quad}$

Student 1: *Making 10 and Decomposing a Number*

I know that 8 plus 2 is 10, so I decomposed (broke) the 7 up into a 2 and a 5. First I added 8 and 2 to get 10, and then added the 5 to get 15.

$$8 + 7 = (8 + 2) + 5 = 10 + 5 = 15$$

Student 2: *Creating an Easier Problem with Known Sums*

I know 8 is 7 + 1. I also know that 7 and 7 equal 14 and then I added 1 more to get 15.

$$8 + 7 = (7 + 7) + 1 = 15$$

Example:  $14 - 6 = \underline{\quad}$

Student 1: *Decomposing the Number You Subtract*

I know that 14 minus 4 is 10 so I broke the 6 up into a 4 and a 2. 14 minus 4 is 10. Then I take away 2 more to get 8.

$$14 - 6 = (14 - 4) - 2 = 10 - 2 = 8$$

Student 2: *Relationship between Addition and Subtraction*

$6 + \square$  is 14. I know that 6 plus 8 is 14, so that means that 14 minus 6 is 8.

$$6 + 8 = 14 \text{ so } 14 - 6 = 8$$

Algebraic ideas underlie what students are doing when they create equivalent expressions in order to solve a problem or when they use addition combinations they know to solve more difficult problems. Students begin to consider the relationship between the parts. For example, students notice that the whole remains the same, as one part increases the other part decreases.  $5 + 2 = 4 + 3$

*(Adapted from Henry County Schools)*