

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 on-going support.

Sincerely,

Your Child's Teacher

Unit Name: Equality

Common Core State Standards:

1.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.

1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 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 $6 + 6 + 1 = 12 + 1 = 13$).

1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$, $7 = 8 - 1$, $5 + 2 = 2 + 5$, $4 + 1 = 5 + 2$.

1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$, $5 = _ - 3$, $6 + 6 = _$.

Essential Vocabulary:

- | | | |
|------------|--------------|-----------|
| • Amount | • Joining | • Symbol |
| • Equal | • Quantity | • True |
| • Equation | • Same | • Unknown |
| • False | • Separating | • Value |

Unit Overview:

In order to determine whether an equation is true or false, First Grade students must first understand the meaning of the equal sign. This is developed as students in Kindergarten and First Grade solve numerous joining and separating situations with mathematical tools, rather than symbols. Once the concepts of joining, separating, and “the same amount/quantity as” are developed concretely, First Graders are ready to connect these experiences to the corresponding symbols (+, -, =). Thus, students learn that the equal sign does not mean “the answer comes next”, but that the symbol signifies an equivalent relationship that the left side ‘has the same value as’ the right side of the equation. When students understand that an equation needs to “balance”, with equal quantities on both sides of the equal sign, they understand various representations of equations, such as:

- An operation on the left side of the equal sign and the answer on the right side ($5 + 8 = 13$)
- An operation on the right side of the equal sign and the answer on the left side ($13 = 5 + 8$)
- Numbers on both sides of the equal sign ($6 = 6$)
- Operations on both sides of the equal sign ($5 + 2 = 4 + 3$).

Once students understand the meaning of the equal sign, they are able to determine if an equation is true ($9 = 9$) or false ($9 = 8$).

Wake County Public Schools, Unit Overview for Parents

This document should not replace on-going communication between teachers & parents.

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Strategies/Skills:

In this unit first graders will work with addition and subtraction equations. First grade students will:

- Determine equality in equations, by understanding the true meaning of the equal sign.
- Balance addition and subtraction equations through 20.
- Discuss the connection and relationship between addition and subtraction.
- Determine the unknown whole number in an addition or subtraction equation, relating three whole numbers.

Video Support:

Video support can be found on The YouTube Channel.

- [Meaning of the Equal Sign](#)

Additional Resources:

If you have limited/no internet access, please contact your child's teacher for hard copies of the resources listed in this document.

- [NCDPI Additional Resources](#)
- <https://www.khanacademy.org/math/early-math/cc-early-math-add-sub-topic/cc-early-math-add-subtract-20/e/meaning-of-equal-sign-1>
- <http://www.mathwire.com/numbersense/dominoes.html>
- <http://nrich.maths.org/4725>

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.

- 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?