

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: Multiplicative Comparisons

### Common Core State Standards:

**4.OA.1** Interpret a multiplication equation as a comparison, e.g., interpret  $35 = 5 \times 7$  as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

**4.OA.2** Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

### Essential Vocabulary:

- multiplicative comparisons
- multiplication/multiply
- division/divide
- addition/add
- subtraction/subtract
- compare/comparison
- equation
- unknown
- remainders
- reasonableness
- mental computation
- estimation
- rounding

### Unit Overview:

In this unit, students will apply their understanding of place value to help them explore multiple groups or division. Students will utilize their knowledge of base ten and groups of numbers within another number to help them compare quantities or numbers. Students will be asked to not only identify, but will need to verbalize which quantity is being multiplied and which quantity tells how many times it is multiplied. Students will need to illustrate comparative situations with various strategies listed below. In addition, students will need to translate the situation into an equation.

### Strategies/Skills:

Students will build on their understanding of addition and subtraction by using place value strategies to make sense of the standard algorithms. They are expected to use a variety of models to support their reasoning about numbers.

- Comparison Bars
- Number Lines

### Wake County Public Schools, Unit Overview for Parents

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

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### **Video Support:**

Video support can be found on LearnZillion.

- <https://learnzillion.com/>
  - Comparing numbers using bar models  
<https://learnzillion.com/lessons/2569-comparing-numbers-using-bar-models>
  - See multiplication as a comparison using number sentences  
<https://learnzillion.com/lessons/2543-see-multiplication-as-a-comparison-using-number-sentences>
  - Compare numbers using additive and multiplicative comparisons  
<https://learnzillion.com/lessons/2891-compare-numbers-using-additive-and-multiplicative-comparisons>
  - Represent unknown numbers using symbols or letters  
<https://learnzillion.com/lessons/2744-represent-unknown-numbers-using-symbols-or-letters>
  - Solve multiplicative comparison word problems by using bar models  
<https://learnzillion.com/lessons/2745-solve-multiplicative-comparison-word-problems-by-using-bar-models>
  - Solve multiplicative comparison word problems by using bar models to represent division  
<https://learnzillion.com/lessons/2851-solve-multiplicative-comparison-word-problems-by-using-bar-models-to-represent-division>
  - Solve multiplicative comparison word problems using multiplication or division  
<https://learnzillion.com/lessons/3017-solve-multiplicative-comparison-word-problems-using-multiplication-or-division>

### **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 Unpacking Document: <http://www.ncpublicschools.org/docs/acre/standards/common-core-tools/unpacking/math/4th.pdf>