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: Area and Perimeter

Common Core State Standards:

4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.

Essential Vocabulary:

- multiplication/multiply
- area
- array
- square unit
- product
- perimeter
- length
- width

Unit Overview:

In this unit, students will apply their understanding of area and perimeter of rectangles from 3^{rd} grade to help them explore the understanding of the abstract formula A = l x w. In addition, students will generate and discuss the different pros and cons for the formulas for perimeter such as: P = 2l + 2w and P = 2(l + w). The first formula has an additional step compared to the second formula with multiplying the length by two, multiplying the width by two and then adding both together. The second formula has the length and width added together and then multiplying it by two. *Apply understanding to formula does not mean write down a memorized formula and put in known values. Students do not need to do this until 6th grade.

Strategies/Skills:

Students will build on their understanding of area and perimeter to make sense of the standard algorithms. They are expected to use a variety of models to support their reasoning about numbers.

- Rectangular Section/Arrays
- Base Ten blocks
- Area Model

Video Support:

Video support can be found on LearnZillion.

- http://learnzillion.com
 - Use area models to find the area of rectangles https://learnzillion.com/student/lessons/2374-use-area-models-to-find-the-area-of-rectangles
 - Find the area of a rectangle using the standard formula <u>https://learnzillion.com/student/lessons/2535-find-the-area-of-a-rectangle-using-the-standard-formula</u>

Wake County Public Schools, Unit Overview for Parents

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

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- Find missing side lengths using the formula for area <u>https://learnzillion.com/student/lessons/2425-find-missing-side-lengths-using-the-formula-for-area</u>
- Find the perimeter of a rectangle using area model <u>https://learnzillion.com/student/lessons/2942-find-the-perimeter-of-a-rectangle-using-an-area-model</u>
- Find perimeter using the standard formula <u>https://learnzillion.com/student/lessons/3047-find-perimeter-using-the-standard-formula</u>
- Find missing side lengths using the formula for perimeter <u>https://learnzillion.com/student/lessons/3048-find-missing-side-lengths-using-the-formula-for-perimeter</u>

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: <u>4th Grade Unpacking Document</u>