Fourth Grade Mathematics Newsletter

Marking Period 2, Part 1

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Number and Operations in Base Ten	• multiply a whole number (up to four digits) by a one-digit whole number using various strategies. • illustrate and explain multiplication calculations by using equations, rectangular arrays, and/or area models.
Measurement and Data	• find the **area** and **perimeter** of rectangles by using **formulas**. • describe the relationship among larger and smaller units within the **metric system of measurement**. • describe the relationship among larger and smaller units within the **customary systems of measurement**. • convert (change) from larger to smaller units within a measurement system. • solve word problems involving conversion of measurements.

It is essential for students in Grade 4 math to be fluent with basic multiplication and division facts, 0 - 10.

Thinking and Academic Success Skills (TASS)		
	It is . . .	In mathematics, students will . . .
Elaboration	adding details that expand, enrich, or embellish.	• add to knowledge of measurement by converting units within the **metric** and **customary** system. • Expand on prior knowledge of measurement to better understand the relationship between different units within the **metric** and **customary system**.
Effort/Motivation/ Persistence	working diligently and applying effective strategies to achieve a goal or solve a problem; continuing in the face of obstacles and competing pressures.	• solve challenging multiplication problems using various strategies that promote a thorough understanding of multiplication. • select manipulatives and aids to solve multiplication problems when having difficulties.

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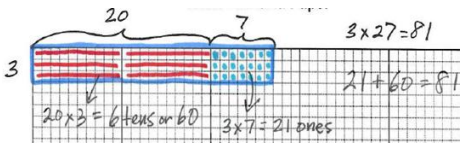
Learning Experiences by Measurement Topic (MT)

MT	In school, your child will . . .	At home, your child can . . .
Number and Operations in Base Ten	• multiply whole numbers using partial-product multiplication, area models, and rectangular arrays. Partial Products Example: 3 x 27 = (3 x 20) + (3 x 7) = 81  3 x 27 = 81 ********** ********** **********	• practice multiplication and division facts from 0 – 10. • practice math facts without using paper and pencil (e.g. How many eggs are in 3 dozen?). • share strategies from school (area model, rectangular array, etc.) for solving a multiplication problem and practice them. Explain the difference between the strategies.
Measurement and Data	• investigate the most efficient formula to determine the **perimeter** and **area** of rectangles using the attributes of a rectangle. Example: P (**perimeter**)= 2 x l (length) + 2 x w (width) A (**area**) = b (base) x h (height) • use a table to record a rule for converting units of measurement *Feet* / *Inches* 10 / ? ? / 84 6 / ?	• measure rectangular objects around the home and find the **perimeter** and **area** of those objects using the correct formula. • discuss the relationship between **area** and **perimeter**. • select a variety of objects and decide what would be the appropriate unit to measure each object. Estimate a reasonable measurement. • use various measuring tools you have at home (measuring tapes, scales, rulers, clocks and measuring cups) to become more familiar with using them in real-world situations (carpentry, sewing, exact time, and cooking). • engage in discussions about how and when to use multiplication to compare measurement. • answer real-world mathematical questions and provide reasonable answers.

Glossary

area: the number of square units needed to cover a closed region.
customary system of measurement: standard unit of measurement used in the United States. (e.g. inches-in., feet-ft., yard-yd. etc.)
formula: a rule or procedure that works in every case.
metric system of measurement: units of measure using the base-ten system. (e.g. centimeter-cm., meter-m., kilometer-km., etc.)
perimeter: the total distance around an enclosed shape.

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