Fourth Grade Compacted Mathematics Newsletter

Marking Period 2, Part 2

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Number and Operations - Fractions	• multiply a fraction by a whole number. • solve word problems involving multiplying a fraction by a whole number.
Measurement and Data	• measure and sketch angles using a protractor. • compose and decompose angles. • use addition, subtraction, and multiplication of fractions to solve word problems involving distance, time, volume, mass, and money.
Geometry	• draw and identify lines, line segments, perpendicular lines, and parallel lines. • draw and identify lines of symmetry in two-dimensional shapes. • draw and identify angles, including reflex angles (more than 180°). • classify triangles and other two-dimensional shapes based on angle and line properties.

Thinking and Academic Success Skills (TASS)		
	It is . . .	In mathematics, students will . . .
Elaboration	adding details that expand, enrich, or embellish.	• choose a strategy to multiply a fraction by a whole number and justify the choice. • decide what worked and what didn't work with a particular strategy when solving word problems.
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 fraction and geometric measurement problems using various strategies that promote a thorough understanding of concepts.

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Learning Experiences by Measurement Topic (MT)		
MT	 In school, your child will . . .	 At home, your child can . . .
Number and Operations - Fractions	• apply knowledge of unit fractions ($\frac{1}{2}, \frac{1}{3}, \frac{1}{4}$ etc.) to use repeated addition to show multiplication by a whole number. Example: $\frac{1}{2} \times 4 = \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} = \frac{4}{2}$ • multiply a fraction by a whole number to solve word problems and explain the answer.	• ask questions to solve word problems that involve multiplying a fraction by a whole number. Example: In your family there are three children. Each child read 5/6 of an hour. How many total hours did everyone read?
Measurement and Data	• use a protractor to measure different types of angles. • draw angles of a given measurement. • discuss different ways to compose and decompose angles. Example: There are many ways I could compose a 90° angle. I could use any two angles that add up to 90°; like 30° and 60°, 10° and 80°, or 1° and 89°. If I use 3 or more angles, there are even more angle combinations whose sum is 90°. • solve real world problems involving measurement and fractions.	• use a protractor to measure the angles of plane figures around the house. Draw some angles and measure them. Create a picture using the angles. • ask questions to solve word problems that involve fractions and measurement. Example: Bus drivers work 4 1/4 hours per day. How long do they work in five days?
Geometry	• use shapes, geoboards (a wooden board with pegs) and rubber bands, pattern blocks, maps, and other materials to identify, analyze, and create geometric features. • identify geometric features in solid figures.	• identify real-world examples of angles, lines, quadrilaterals and triangles. • play "Guess My Rule." In this game, collect and sort everyday items and guess the rule for sorting them according to their line or angle properties. Then reverse roles.