Fifth Grade Mathematics Newsletter

Marking Period 3, Part 1

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Number and Operations - Fractions	• represent and solve real-world multiplication problems with fractions in different ways. • interpret multiplication of a fraction by a fraction as resizing. • apply informal knowledge of the distributive property to decompose **mixed number** factors and multiply. • solve problems involving area of rectangles with fractional side lengths. • apply and explain efficient strategies to multiply fractions.

Thinking and Academic Success Skills (TASS)		
	It is . . .	In mathematics, students will . . .
Elaboration	adding details that expand, enrich, or embellish.	• add detail to explain the steps used to multiply fractions. • expand on interpretation of an area model. • explain with details how area models help represent and solve problems involving multiplying a fraction by a fraction. • extend knowledge of the relationship between the size of a product and the size of its factors when multiplying fractions.
Intellectual Risk Taking	accepting uncertainty or challenging the norm to reach a goal.	• adapt and make adjustments to meet challenges when seeking solutions to multiplication problems involving fractions. • demonstrate willingness to accept uncertainty by sharing ideas, asking questions, or attempting new strategies to solving word problems. • challenge self and others by creating real world examples when multiplying fractions to see math as sensible and useful. • consider different ways to represent a given situation when a problem is hard to understand.

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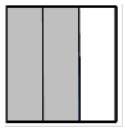
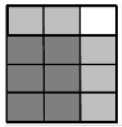
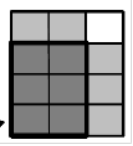
Learning Experiences by Measurement Topic (MT)

MT	In school, your child will . . .	At home, your child can . . .
Number and Operations - Fractions	• **partition** a whole into fractional parts to represent multiplying fractions using an area model. Example: $\frac{2}{3} \times \frac{3}{4}$ The whole is **partitioned** into three equal parts. Two of the three parts are shaded to represent $\frac{2}{3}$.  Then the whole is **partitioned** into four equal parts. Three of the four parts are shaded to represent $\frac{3}{4}$.  The product is the overlapped region. $\frac{2}{3} \times \frac{3}{4} = \frac{6}{12}$ The answer is $\frac{6}{12}$ → 	• use real-world examples to multiply fractions using an area model. Example: A cookie recipe calls for $\frac{2}{3}$ cup of flour. You are making $\frac{3}{4}$ of a batch. How much flour do you need? (Try similar problems using other measurements or recipes.) ***note:*** *this is an example of resizing* Example: You did your homework for $1\frac{1}{4}$ of an hour. You spent $\frac{1}{2}$ of the time reading. What fraction of an hour did you read? • show intellectual risk-taking by creating real-world problems Website to support learning about multiplying fractions: http://www.learner.org/courses/learningmath/number/session9/part_a/try.html

Glossary	
	mixed number: a number written as a whole number with a fraction Example: $3\frac{2}{5}$ **partition:** divide a whole into equal parts