Fifth Grade Compacted Mathematics Newsletter
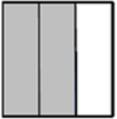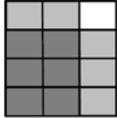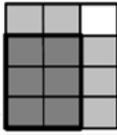Marking Period 1, Part 1

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Numbers and Operations- Fractions	- solve word problems involving multiplication of fractions and whole numbers and multiplication of fractions and fractions. - identify multiplication of a fraction and a whole number as it relates to **resizing (scaling)**. - use visual fraction models (pictures) to multiply a fraction by a fraction. - solve problems involving area of rectangles with fractional side lengths. - apply and explain efficient strategies to multiply fractions.
Number and Operations in Base Ten	use the standard algorithm to multiply multi-digit whole numbers.

Thinking and Academic Success Skills (TASS)		
MT	It is . . .	In mathematics, students will . . .
Flexibility	being open and responsive to new and diverse ideas and strategies and moving freely among them.	- use a variety of methods to multiply fractions with unlike denominators. - demonstrate an ability to adapt to changing ideas, questions, resources, or strategies when presented with evidence through various learning experiences. - apply knowledge of operations with whole numbers to multiply fractions.
Collaboration	working effectively and respectfully to reach a group goal.	- seek and respect multiple ideas to broaden and deepen understanding about multiplication. - identify and analyze options for sharing responsibility to reach a group goal for problem solving. - discuss in pairs or a group, reasonable responses by comparing strategies to help understand a problem.

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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	• interpret multiplication of a fraction and a whole number as **resizing (scaling)** . Example: Given the expression $\frac{?}{?}$ x 18, write a fraction that will result in a product greater than, less than and equal to 18. • **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. $\frac{2}{3}$ x $\frac{3}{4}$ = $\frac{6}{12}$ The answer is $\frac{6}{12}$	• multiply a whole number by a fraction and find relevant applications. Example: If you read for $\frac{1}{2}$ hour every day, how many hours have you read by the end of the week? Website to support learning about fraction models: http://www.mathplayground.com/Fraction_bars.html • 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 flexibility by creating real-world problems Website to support learning about multiplying fractions: http://www.learner.org/courses/learningmath/number/session9/part_a/try.html
Number and Operations in Base Ten	• use the standard algorithm to multiply multi-digit whole numbers. Example: 2 2 3 4 256 x47 1792 +10240 12032	• look in newspapers or magazines for numbers to create multiplication problems using the standard algorithm to practice multi-digit whole numbers.

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