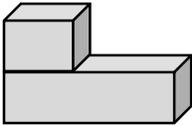


Fifth Grade Mathematics Newsletter

Marking Period 1, Part 1

MT	Learning Goals by Measurement Topic (MT) <u>Students will be able to . . .</u>	
Number and Operations in Base Ten	<ul style="list-style-type: none"> estimate and use the standard algorithm to multiply multi-digit whole numbers. determine when to use the standard algorithm to multiply multi-digit whole numbers. 	
Measurement and Data	<ul style="list-style-type: none"> identify volume (the number of unit cubes needed to fill a space) as an attribute (characteristic) of solid figures (rectangular prisms). apply strategies to determine volume. relate volume to the operations of addition and multiplication. determine the volume of a solid figure composed (put together) of two non-overlapping rectangular prisms. 	 <p>non-overlapping rectangular prisms</p>
Operations and Algebraic Thinking	<ul style="list-style-type: none"> write and interpret numerical expressions (a mathematical phrase that has no equality or inequality) using parentheses. identify and evaluate (solve) numerical expressions. identify and write expressions that record calculations with whole numbers. describe and interpret the relationship between numerical expressions without evaluating them. 	

Thinking and Academic Success Skills (TASS)		
	<u>It is . . .</u>	<u>In mathematics, students will . . .</u>
Flexibility	being open and responsive to new and diverse ideas and strategies and moving freely among them.	<ul style="list-style-type: none"> determine when to use a particular strategy to solve a problem. determine the method of computation based on the understanding of place value and properties of operations. solve for the volume of a figure using a formula or counting cubic units. identify how numbers and relationships can be represented in multiple ways.
Collaboration	working effectively and respectfully to reach a group goal.	<ul style="list-style-type: none"> share ideas and listen to the ideas of others in order to help clarify the group's understanding of multiplication, volume, and expressions. share ideas about different ways to decompose (take apart) a solid figure. work together to solve real world problems relating to volume.

Fifth Grade Mathematics Newsletter

Marking Period 1, Part 1

Learning Experiences by Measurement Topic (MT)		
MT	<u>In school, your child will . . .</u>	<u>At home, your child can . . .</u>
Number and Operations in Base Ten	<ul style="list-style-type: none"> • answer and respond to questions. <p><u>Possible Question:</u> What is the best strategy to use to solve $6,000 \times 300$? Why?</p> <p><u>Possible Response:</u> Mental multiplication because I know that if I multiply 6×3, I will get 18. I chose not to use the standard algorithm because I can quickly see a way to mentally multiply to determine the product; multiplying multiples of ten, hundred, thousand, or ten thousand are easy for me to do mentally by using my knowledge of the powers of ten.</p>	<ul style="list-style-type: none"> • practice basic facts fluency for multiplication and division. <p><u>Websites to support learning:</u></p> <ul style="list-style-type: none"> ○ http://www.bbc.co.uk/bitesize/ks1/maths/multiplication/play/ ○ http://www.bbc.co.uk/schools/starship/maths/games/cross_the_swamp/big_sound/full.shtml ○ http://www.bbc.co.uk/skillswise/game/ma12pape-game-written-multiplication <ul style="list-style-type: none"> • use flexibility in choosing and explaining a strategy (mental math, partial product, standard algorithm) that can be used to solve real life problems using multiplication. <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 10px;"> <div style="text-align: center;"> <p>standard algorithm</p> $\begin{array}{r} 22 \\ 34 \\ \hline 256 \\ \times 47 \\ \hline 1792 \\ +10240 \\ \hline 12032 \end{array}$ </div> <div style="text-align: center;"> <p>partial product</p> $\begin{array}{r} 43 \\ \times 17 \\ \hline 301 \quad 7 \times 43 \\ + 430 \quad 10 \times 43 \\ \hline 731 \end{array}$ </div> </div>
Measurement and Data	<p><u>Possible Question:</u> How would you solve for the volume of this cube?</p> <div style="text-align: center; margin: 5px 0;"> </div> <p><u>Possible Response:</u> $V = \text{base} \times \text{height}$ $\text{Base} = 3 \times 3$ (length \times width) = 9 units $V = 9$ (base) \times 3 (height) = 27 cubic units</p>	<ul style="list-style-type: none"> • find the volume of various rectangular prisms in your home. <p><u>Examples:</u> boxes, Legos, books, etc.</p> <ul style="list-style-type: none"> • analyze different ways that volume can be represented.
Operations and Algebraic Thinking	<p><u>Possible Question:</u> What do you notice about these two expressions?</p> <p style="text-align: center;">$(4 + 3) \times 5$ $(4 + 3) \times 10$</p> <p><u>Possible Response:</u> In the first expression, there are five groups of $4 + 3$; and in the second expression, there are ten groups of $4 + 3$. In the first expression, the sum will be multiplied by 5; in the second expression, the sum is double the sum of the first expression.</p>	<ul style="list-style-type: none"> • use parentheses to create an expression for buying 3 children’s movie tickets at \$7 each and 2 adult movie tickets for \$12. <p><u>Possible Response:</u> $(3 \times 7) + (2 \times 12)$</p> <p><u>Possible questions to ask your child:</u></p> <ul style="list-style-type: none"> ○ How do parentheses help you evaluate (solve) the expression? ○ How would your answer change if it didn’t have grouping symbols?

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Marking Period 1, Part 1