

Fifth Grade Mathematics Newsletter

Marking Period 1, Part 2

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"> • identify and explain patterns of zeros when multiplying or dividing by powers of 10. • apply understanding of place value to read and write decimals (to the thousandths). • explain how the values of digits in multi-digit numbers are related. • compare decimals using understanding of place value. • round decimals (to the thousandths) less than and greater than 1. • add or subtract decimals (to the tenths, hundredths, and thousandths) using models or drawings; then relate strategies to written methods. • use equations, rectangular arrays, or area models to divide a 2-digit number by a 2-digit multiple of 10 (10, 20, 30...). • mentally divide 2- or 3-digit numbers by a 2-digit multiple of 10. • estimate quotients (the answer to a division problem) using various strategies.

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"> • demonstrate an ability to adapt to changing ideas, questions, resources, or strategies when presented with evidence through various learning experiences. • use strategies to read, write, and compare decimals. • determine the method of computation based on the understanding of place value and properties of operations. • apply knowledge about adding and subtracting whole numbers to add and subtract decimals.
Collaboration	working effectively and respectfully to reach a group goal.	<ul style="list-style-type: none"> • seek and respect multiple ideas to broaden and deepen understanding about place value. • 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.

Glossary	<p>place value: The value of a digit as determined by its position in number</p> <ul style="list-style-type: none"> ○ hundredths - name of the place to the right of the tenths place; there are 100 hundredths in one whole. <u>Example:</u> 3.24 (three and twenty four hundredths) ○ tenths - name of the place to the right of the decimal point ; there are 10 tenths in one whole <u>Example:</u> 3.4 (three and four tenths) ○ thousandths - name of the place to the right of the hundredths place; there are 1,000 thousandths in one whole <u>Example:</u> 3.124 (three and one hundred twenty four thousandths) <p>powers of 10: representing a number by the number of times 10 can be multiplied by itself</p>
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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"> practice multiplying or dividing decimals by various powers of 10 and reflect on the patterns of zeros when comparing the products. <u>Possible problem:</u> $0.37 \times 10 =$ <u>Possible response:</u> the product is 370 hundredths or 3.7 $0.37 \times 10 = 3.7$ (decimal point moves one place value to the right when multiplying by each power of ten) use various strategies to practice estimating quotients. <u>Possible problem:</u> $205 \div 50 =$ <u>Possible Response:</u> There are 20 tens in 200 and 5 tens in 50. $20 \div 5 = 4$ A good estimate would be 4. Since 205 is larger than 200 the quotient would be slightly greater than 4. identify the place value of digits within a decimal. represent decimals using standard, word, and expanded form. <u>Possible question:</u> Write the 37. 65 in standard form, word form, and expanded form. <u>Answers:</u> <ul style="list-style-type: none"> Standard form: 37.65 Word form: thirty seven and sixty five hundredths Expanded form: $3 \times 10 + 7 \times 1 + 6 \times (\frac{1}{10}) + 5 \times (\frac{1}{100})$ compare decimals by looking at the tenths, hundredths, and thousandths place and explain which decimal number is greater than, less than, or equal to another using knowledge of place value. <u>Possible question:</u> compare 11.26 and 11.3 <u>Answer:</u> $11.26 < 11.3$ <u>Possible response:</u> I know that 3 tenths is equal to 30 hundredths and 26 hundredths is less than 30 hundredths. 	<ul style="list-style-type: none"> work collaboratively to find examples of numbers with tenths and hundredths in books, papers, magazines, and advertisements. Then use that information to convert dollars to dimes and pennies to reinforce the concepts of multiplying decimals by 10 and 100. <u>Example:</u> Shampoo costs \$2.90. How many dimes and pennies is that? $2.90 \times 10 = 29$ dimes $2.90 \times 100 = 290$ pennies <u>Websites to support learning:</u> http://www.mathsisfun.com/index-notation-powers.html solve real life situations with multi-digit division. <u>Example:</u> There are 346 brownies at a party with 70 guests. Estimate how many brownies each person could get. <u>Possible questions to ask your child:</u> <ul style="list-style-type: none"> What would be a good estimate? Is your estimate slightly lower or slightly greater than the quotient? How do you know? What strategies did you use to determine the estimate? use money or prices from advertisements and identify the number in standard form, word form, and expanded form. look for numbers with decimals in the real world and use a place value chart to help read and write the number. <p style="text-align: center;">Place Value chart that represents 425.836</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> <th>Decimal</th> <th>Tenths</th> <th>Hundredths</th> <th>Thousandths</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">2</td> <td style="text-align: center;">5</td> <td style="text-align: center;">.</td> <td style="text-align: center;">8</td> <td style="text-align: center;">3</td> <td style="text-align: center;">6</td> </tr> </tbody> </table> <p><u>Websites to support learning:</u> http://www.mathsisfun.com/decimals.html</p>	Hundreds	Tens	Ones	Decimal	Tenths	Hundredths	Thousandths	4	2	5	.	8	3	6
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