Fifth Grade Mathematics Newsletter

Marking Period 1, Part 2

MT	Learning Goals by Measurement Topic (MT) Students will be able to . . .
Number and Operations in Base Ten	• 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)		
	It is . . .	In mathematics, students will . . .
Flexibility	being open and responsive to new and diverse ideas and strategies and moving freely among them.	• 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.	• 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	
	place value: The value of a digit as determined by its position in number o **hundredths** - name of the place to the right of the tenths place; there are 100 hundredths in one whole. Example: 3.24 (three and twenty four hundredths) o **tenths** - name of the place to the right of the decimal point ; there are 10 tenths in one whole Example: 3.4 (three and four tenths) o **thousandths** - name of the place to the right of the hundredths place; there are 1,000 thousandths in one whole Example: 3.124 (three and one hundred twenty four thousandths) **powers of 10:** representing a number by the number of times 10 can be multiplied by itself

Fifth Grade Mathematics Newsletter

Marking Period 1, Part 2

Learning Experiences by Measurement Topic (MT)

Number and Operations in Base Ten

In school, your child will . . .

- practice multiplying or dividing decimals by various powers of 10 and reflect on the patterns of zeros when comparing the products.

  Possible problem: 0.37 × 10 =

  Possible response: the product is 370 **hundredths** or 3.7

  0.37 x 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.

  Possible problem: 205 ÷ 50 =

  Possible Response: There are 20 tens in 200 and 5 tens in 50. 20 ÷ 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.

  Possible question: Write the 37. 65 in standard form, word form, and expanded form.

  Answers:
  - 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.

  Possible question: compare 11.26 and 11.3

  Answer: 11.26 < 11. 3

  Possible response: I know that 3 **tenths** is equal to 30 **hundredths** and 26 **hundredths** is less than 30 **hundredths**.

At home, your child can . . .

- 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.

  Example: Shampoo costs $2.90. How many dimes and pennies is that?

  2.90 x 10 = 29 dimes 2.90 x 100 = 290 pennies

  Websites to support learning:
  http://www.mathsisfun.com/index-notation-powers.html

- solve real life situations with multi-digit division.

  Example: There are 346 brownies at a party with 70 guests. Estimate how many brownies each person could get.

  Possible questions to ask your child:
  - 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.

Place Value chart that represents 425.836

Hundreds	Tens	Ones	Decimal	Tenths	Hundredths	Thousandths
4	2	5	.	8	3	6

Websites to support learning:
http://www.mathsisfun.com/decimals.html

Fifth Grade Mathematics Newsletter

Marking Period 1, Part 2