

UNIT OF STUDY

Title: Unit 4		Subject/Course: Math	Length: 2 ½ weeks
Topic: Numbers and Operations (Decimals)		Grade: 5	Designer: O'Cain, Smith
UNIT GOALS AND EXPECTATIONS			
IMPORTANT CONCEPTS: <ul style="list-style-type: none">Estimating sums and differences of decimalsMultiplying and dividing of decimals		ESSENTIAL QUESTIONS: How can models help us understand the addition and subtraction of decimals? How is computation with rational numbers similar and different to whole number computation?	
STUDENT LEARNING EXPECTATIONS: NO.2.5.5 Model addition, subtraction, and multiplication of fractions with like and unlike denominators and decimals		NO.3.5.2 Develop and use <i>algorithms</i> : <ul style="list-style-type: none">to add and subtract numbers containing decimals (up to thousandths place)to multiply decimals (hundredths x tenths)to divide decimals by <i>whole number</i> divisorsto add and subtract fractions with like denominators	
SPECIFIC DECLARATIVE KNOWLEDGE – What I know Explain Vocabulary terms: least common multiple and common denominator Know that the denominator stays the same and represents congruent pieces		SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do A. *use manipulatives to add, subtract and multiply fractions with like denominators *use manipulatives to convert fractions with unlike denominators prior to adding or subtracting *model addition, subtraction, and multiplication of fractions with like and unlike denominators and decimals B. *model decimals using manipulatives (money, grid paper, base ten blocks, etc.) *model addition, subtraction and multiplication of decimals A. *apply place value (including NO.1.5.2) *model an understanding of addition and subtraction of decimals using manipulatives *add and subtract decimals using algorithms B. *model multiplying decimals using manipulatives or visual aids *apply place value to understand that multiplying decimals can result in a larger or smaller product *multiply decimals using algorithms C. *model dividing decimals by whole numbers using manipulatives or visual aids *apply place value to understand where the decimal point should be placed in the quotient *divide decimals by whole number divisors using algorithms D. *model adding fractions with like denominators using manipulatives or visual aids *add and subtract fractions with like denominators	
UNIT ASSESSMENTS (Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)			
"Rolling Numbers" activity. (Forming numbers from rolling a number cube and then adding the whole number and decimal. Open response – adding /subtracting decimals			

Traditional Assessments: Teacher constructed quiz on adding/subtracting decimals. Teacher constructed test on adding/subtracting/multiplying, and dividing decimals.	Other Evidence of Learning: Weekly homework assignments Classwork practice
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ACTIVITIES AND LEARNING EXPERIENCES	Resources
1. Use www.brainpop.com (decimals) to introduce the concept of computing decimals. 2. Use Harcourt text and modeling to introduce adding and subtracting decimals. 3. Use instructional video (united streaming) to reinforce the concept of adding and subtracting decimals. 4. Use a hundreds grid to model the process of multiplying decimals. 5. Use Harcourt text as practice to reinforce the process of multiplying decimals. 6. Use instructional video (united streaming) to reinforce multiplying decimals 7. Introduce the concept of dividing decimals by whole numbers by using base ten blocks. 8. Use Harcourt text to reinforce and practice the concept of dividing decimals by whole numbers. 9. Use instructional video (united streaming) to reinforce dividing decimals by whole numbers.	www.brainpop.com (decimals) Harcourt text – Ch. 3 Lesson 5 www.unitedstreaming.com (Math Mastery: Adding and subtracting decimals-Lesson 2) Hundreds grid Harcourt text – Ch. 8 Lesson 3 www.unitedstreaming.com (Math Mastery: Multiplying fractions –Lesson 5) Base ten blocks Harcourt text – Ch. 11 Lesson 3 www.unitedstreaming.com (Math Mastery: Dividing decimals-Lesson 3)
Career Connections	
Discuss the use of decimals in the financial world, such as careers in the stock market, trade broker, etc.	

Performance Assessment

Title: Number Rolling

Expectation: Student will be able to write, compare, and add decimals by using a number cube.

Description:

Students will:

1. Roll number cube 6 times.
2. Write each number rolled on the blanks. (first 3 whole numbers, last three placed behind the decimal point)
3. Write number in expanded form and word form.
4. Repeat steps 1-3.
5. Compare the two numbers (greater than, less than)
6. Find the sum of the two numbers

First number: ___ ___ ___ . ___ ___ ___

Expanded:

Word Form:

Second number: ___ ___ ___ . ___ ___ ___

Expanded:

Word Form:

Compare numbers: _____ _____

Sum: