Unit Map 2012-2013

Monroe #2 - Orleans BOCES (Regional Collaboration)

Collaboration / Math 6* / Grade 6 (Math Regional Curriculum)

Wednesday, October 31, 2012, 12:02PM

Standard/Module: Proficiency with Expressions and Equations 6.EE.6 (Week 12, 5 Weeks)

Stage 1: Desired Results

Standards Focus

- Major (70%) 6.RP.1

6th Grade CCS Map.pdf

Standards

NYS: CCLS:Mathematics, NYS: 6th Grade , Expressions & Equations

6.EE Reason about and solve one-variable equations and inequalities.

- 6. Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.

Enduring Understandings	Essential Questions
1. Use inequalities and equations to solve real-world and mathematical problems. 2. Recognize the difference in the terminology used within a real-world and mathematical problem between an equation and inequality. 3. Depending on the purpose at hand the variable could result in a specific number or a variety of numbers in a specified set.	1. How do equations and inequalities differ? 2. What allows for multiple solutions to an inequality? 3. Is it possible to have more than one solution for equations? 4. Is it possible to have only one solution for an inequality?

Critical Content

1. Equation

2. Inequality

   a. < , > , =

3. Numerical expressions

4. Variable

Skills	Vocabulary
1. Use variables to represent numbers 2. Use variables to write and solve expressions 3. Understand that a variable can represent an unknown number 4. Understand that a variable can represent any number in an unknown set	Tier 2 expression base power notation factor variable term constant translate evaluate simplify sum difference product quotient formula substitution Tier 3 equivalent expressions exponent standard form exponential form

	factor form expanded form coefficient distributive property like terms inequality equation

Stage 2: Assessment Evidence

Assessments

Formative: Other: Quiz

When answering the following questions be sure to define your variables.

1.) Maria has three more than twice as many crayons as Elizabeth. Write an algebraic expression to represent the number of crayons that Maria has.

2.) An amusement park charges $28 to enter and $0.35 per ticket. Write an algebraic expression to represent the total amount spent.

3.) Andrew has a summer job doing yard work. He is paid $15 per hour and a $20 bonus when he completes the yard. He was paid $85 for completing one yard. Write an equation to represent the amount of money he earned.

4.) Describe a problem situation that can be solved using the equation $2c + 3 = 15$; where *c* represents the cost of an item.

5.) Bill earned $5.00 mowing the lawn on Saturday. He earned more money on Sunday. Write an expression that shows the amount of money Bill has earned.

Stage 3: Learning Plan	
Learning Activities	**Resources**
Traveling About Town Look for opportunities to talk about equations when traveling by car, foot, bus, or train. Some examples of equations are shown below. Examples: Suppose 8 people get off of a bus and 18 are left. What equation can you write to show how many people were on the bus to begin with? b 2 8 5 18, where b represents people on the bus. (b 5 26) Suppose you buy 12 gallons of gas and your car gets 34 miles per gallon. What equation can you write to show how many miles you can drive? d 5 34 3 12, where d represents miles. (d 5 408).	http://engageny.org/common-core/ http://illustrativemathematics.org/ www.livebinders.com/play/play/52180 http://illuminations.nctm.org/ http://www.mathsisfun.com/geometry/polyhedron.html http://www.korthalsaltes.com/

Differentiation Opportunities

Connecting writing expressions with story problems and/or drawing pictures will give students a context for this work. It is important for students to read algebraic expressions in a manner that reinforces that the variable represents a number.

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