Unit Map 2012-2013

Monroe #2 - Orleans BOCES (Regional Collaboration)

Collaboration / Math 4* / Grade 4 (Math Regional Curriculum)

Wednesday, October 31, 2012, 10:05AM

Standard/Module: Proficiency in Operations & Alg. Thinking - 4.OA.3 (Week 1, 39 Weeks)

Stage 1: Desired Results

Standards Focus

- Major (70%) Connects to 4.OA.1 and 4.OA.2

4th Grade Proficiency Map.pdf

Standards

NYS: CCLS:Mathematics, NYS: 4th Grade , Operations & Algebraic Thinking

4.OA Use the four operations with whole numbers to solve problems.

- 3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Enduring Understandings	Essential Questions
1. The four operations can be used to solve word problems. 2. Estimation is a useful tool when checking for reasonableness. 3. Answers can be whole numbers or decimals. 4. A variable represents an unknown. 5. Equations can be written to represent word problems and solved.	1. How do you write an equation given a word problem? 2. What does a variable represent? 3. How do you interpret a remainder in the context of a word problem? 4. What steps do you use when solving an equation? 5. How do you assess the reasonableness of answers? 6. What are some strategies you

	use when solving multi-step word problems?

Critical Content

Multi-step Word Problems

Whole Numbers/whole number Answers

Four operations

Remainders

Equations

Variables

Answers

Mental Computation

Estimation Strategies

Rounding

Skills	**Vocabulary**
1. Solve multi-step word problems posed with whole numbers and having whole number answers using the four operations. 2. Students will be able to solve problems where they have to interpret remainders. 3. Students will represent problems using equations and variables. 4. Students will assess the reasonableness of answers using mental computation estimation strategies using rounding.	Tier 2: operations, expressions, answers, computation, estimate, round Tier 3: Whole numbers, remainder, variable

Stage 2: Assessment Evidence

Assessments

Problems in Context with Four Operations
Formative: Test: Written

Students are asked to do a series of context problems that involve knowing what operation(s) to choose and showing their solution pathway. The tasks should be graded against a holistic rubric similar to what the state test uses on constructed response items.

Stage 3: Learning Plan

Learning Activities	Resources
Students are presented with multiple opportunities to solve problems in context using the four operations, and combinations of operations. Problems should be as authentic as possible and not contrived-- the problems should be "worth doing." Students give presentations to the class about the problems that they are assigned and clearly explain solution pathways.	www.illustrativemathematics.org www.illuminations.nctm.org

Differentiation Opportunities

When students are placed into groups to work on problems in context, it is less threatening for students who struggle because they can work together to interpret and solve the problems.

<< Previous Year

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