Fifth Grade Math Map

Grade: PK to 5
Course: Elementary Math
South Seneca Elementary School
Developed by: *Jon DuFour, Stacey Clark*
From: September 2007 to June 2008 (10 months)
Map Status: In Progress - Shared

Mapping Category	September 2008	October 2008
Theme		
Content	Fact Review/Problem Solving/ Number Sense (Place Value)	Number Sense/Operations
Skills	**Fact Review** • **Review basic multiplication facts** **Problem Solving** • Difference between important and irrelevant information • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked **Place Value** • Read and write numbers to million • Write numbers in standard, expanded, and word form • Compare and order numbers to millions • Understand the place value structure of the base ten number system • Round Numbers to nearest ten, thousand, ten thousand etc...	**Fact Review** • **Review basic multiplication and division facts** **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked **Number Sense** • Read, Write, and order decimals to thousandths • Round decimal to nearest whole number, tenth, hundredth, and thousandth • Compare decimal numbers using >, <, or = **Operations** • Adding and subtracting whole numbers • Adding decimals • Subtracting decimals • Estimating sums • Estimating differences
Assessment	• All explanations of problems are collected and assessed	All explanations of problems are collected

	• Verbal presentation of how individuals and groups solved problems • Nightly hw to review concept being taught • Weekly Quizzes • Concept Tests • Games using the concept	and assessed • Verbal presentation of how individuals and groups solved problems • Nightly hw to review concept being taught • Weekly Quizzes • Concept Tests • Games using the concept
Resources	• Scott Foresman Text Book/Workbook • Teacher Created Problems • Numerous internet sites for practicing facts and using games to practice learned concept • Games	• Scott Foresman Text Book/Workbook • Teacher Created Problems • Numerous internet sites for practicing facts and using games to practice learned concept • Games

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Mapping Category	November 2008	December 2008
Theme		
Content	Number Sense/Operations	Number Sense/Operations
Skills	**Operations** • Exploring multiplication patterns • Exploring multiplication properties - Associative and commutative properties • Estimating products of whole numbers • Justify reasonableness of answer using estimation • Multiply whole numbers (up to three digit by three digit) • Pre-algebra - what is the rule - find value of n • Calculate common multiples and least common multiples of 2 and 3 numbers **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked	**Operations** • Multiply decimals by whole numbers • Multiply decimals by decimals to thousandths • Estimate products of decimals • Justify reasonableness of answer using estimation • Patterns to decimal multiplication - X 10, 100, 1000 etc... • Exploring division patterns - 32 ÷ 8 = 4 • 320 ÷ 8 = 40 • 3200 ÷ 8 = 400 etc... • Estimating quotients • Dividing by 1 digit divisors • Zeros in the quotient **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked
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	• Games using the concept	• Games using the concept
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Mapping Category	January 2009	February 2009
Theme		
Content	Number Sense/Operations & Geometry	Measurement/Fractions
Skills	**Operations** • Exploring Mean, median, and mode • Dividing by 2 and three digit divisors • Dividing Money and decimals • Estimating quotients with decimals • Divisibility rules • Identify factors of a given number • Prime and Composite numbers **Geometry** • Lines and angles • Measuring and drawing angles using a protractor • Classifying triangles - Isosceles - Scalene - Equilateral - Know interior angles measure 180 • Classify and explore quadrilaterals - know degree measure of interior angles - 360 • Similar & congruent & corresponding parts • Calculate perimeter of regular and irregular polygons **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked	**Measurement** • Measuring using inches to 1/2, 1/4, 1/8, & 1 /16 • Measuring using centimeters • Convert measurement within a given system • Calculate elapsed time **Fractions** • Create equivalent fractions • Compare and order fractions (like and unlike denominators) • Understand ratio • Understand % and write %'s in fraction and decimal form • Simplify fractions • Change improper fractions to mixed numbers • Change mixed numbers to improper fractions • Add and subtract fractions with like denominators **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked
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Mapping Category	March 2009	April 2009
Theme		
Content	Organization and Display of Data/Statistics and Probability/Problem Solving	Algebra Variables and Expression / Problem Solving
Skills	**Organization and Display of Data** • Read and interpret: Bar graphs, Line Graphs, Pie Charts, Pictographs, Stem and Leaf plots, and line plots • Formulate conclusions and make predictions based on information in Bar graphs, Line Graphs, Pie Charts, Pictographs, Stem and Leaf plots, and line plots • Collect data from a variety of sources • Use data to create Bar graphs, Line Graphs, and pictographs • Know the use for each type of graph - Bar to compare data - Line to show trends over time • Calculate range, median, and mode for information contained in the graphs **Statistics and Probability** • **Explore fairness** • **List possible outcomes** • Record experiment results using fractions/ratios • Determine the probability of a single event, given a simple experiment (e.g., rolling a number cube) **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem	**Algebra** • Translate simple verbal expressions into algebraic expressions • Substitute assigned values into variable expressions and evaluate using order of operations • Solve one step equations • Use inverse operations to solve one step equations **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked

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Mapping Category	May 2009	June 2009
Theme		
Content	Number Sense and Operations review/ Problem Solving	GeometryReview/Coordinate Geometry/Problem Solving
Skills	**Number Sense and Operations Review** • Dividing 2 digit divisors • Dividing 2 digit divisors zeros in the quotient • Dividing Decimals and Money • Multiplying Decimals - 3 digit factors **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked	Geometry Review • Classify Quadrilaterals and Triangles • Similar/Congruent • Perimeter • Measuring and drawing angles using protractor **Coordinate Geometry** • Identify and plot points in the first quadrant • Plot points to form geometric shapes • Identify and classify shapes formed • Calculate perimeter of basic geometric shapes drawn on a coordinate plane **Problem Solving** • Interpret information, Identify the problem, come up with a strategy and solution • Practiced solving problems using the following strategies 1. Draw a picture 2. Write a number sentence 3. Guess and check 4. make an organized list 5. Work backwards 6. make a chart 7. look for a pattern 8. use logic • Work with partners to understand and solve problems • Compare different approaches to solving the same problem • Answer explanations - Answer--what strategy was used--steps--how answer was checked
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