

# Fourth Grade Math Map

Grade: PK to 5

Course: Elementary Math

South Seneca Senior High School

Developed by: *Deb Stasierowski, Leo Guelpa, Roberta Beckhorn, Stacey Clark*

From: September 2008 to June 2009 (10 months)

Map Status: In Progress - Shared

Mapping Category	September 2008	October 2008
<b>Theme</b>	<p>Math Group - Chapter 3: <i>Addition and Subtraction Strategies</i></p> <p>Math Homeroom - Chapter 1: <i>Reading and Making Graphs, Working with Data</i></p> <p>NYS Standards: Grade 4 Math  MST MATH.1.1, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.7, MATH.1.8, MATH.1.9, MATH.1.10, MATH.1.11, MATH.1.13, MATH.1.15, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.22, MATH.1.23, MATH.1.24, MATH.2.1, MATH.2.2, MATH.2.3, MATH.2.6, MATH.3.1, MATH.3.2, MATH.3.3, MATH.3.4, MATH.3.5, MATH.3.6, MATH.3.8, MATH.3.9, MATH.3.10, MATH.3.11, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.5, MATH.4.6, MATH.5.1, MATH.5.2, MATH.5.3, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.1, MATH.1.2, MATH.1.3, MATH.1.4, MATH.1.5, MATH.1.14, MATH.1.15, MATH.1.26, MATH.1.27, MATH.2.1, MATH.2.3, MATH.2.5</p>	<p>Math Group - Finish Chapter 3: <i>Addition and Subtraction Strategies</i>; Chapter 4-A: <i>Understanding Multiplication</i></p> <p>Math Homeroom - Begin Chapter 2: <i>Place Value and Time</i></p> <p>NYS Standards: Grade 4 Math  MST MATH.1.1, MATH.1.2, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.7, MATH.1.8, MATH.1.9, MATH.1.10, MATH.1.11, MATH.1.13, MATH.1.14, MATH.1.15, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.24, MATH.2.1, MATH.2.2, MATH.2.3, MATH.2.5, MATH.2.6, MATH.2.7, MATH.2.8, MATH.2.9, MATH.3.1, MATH.3.2, MATH.3.3, MATH.3.4, MATH.3.5, MATH.3.7, MATH.3.9, MATH.3.10, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.5, MATH.4.6, MATH.4.7, MATH.4.8, MATH.5.1, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.1, MATH.1.2, MATH.1.3, MATH.1.4, MATH.1.5, MATH.1.14, MATH.1.15, MATH.1.17, MATH.1.18, MATH.2.1, MATH.2.2, MATH.2.3, MATH.2.5, MATH.5.1, MATH.5.2, MATH.5.3, MATH.5.4, MATH.5.5, MATH.5.6</p>
<b>Content</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Addition and Subtraction Patterns</li> <li>• Estimating Sums and Differences</li> <li>• Mental Math</li> <li>• Adding and Subtracting Money</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Bar Graph</li> <li>• Pictograph</li> <li>• Line Graph</li> <li>• Coordinate Grid</li> <li>• Line Plot</li> <li>• Stem-and-Leaf Plot</li> <li>• Range, Median and Mode</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• Collaborate to solve problems</li> <li>• Explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Mental Math</li> <li>• Adding and Subtracting Money</li> <li>• Meaning of Multiplication</li> <li>• Patterns in Multiplying (0-12)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Place Value Through Millions</li> <li>• Place Value Relationships</li> <li>• Comparing Numbers to 10,000s</li> <li>• Ordering Numbers</li> <li>• Rounding Numbers</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>

<b>Skills</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>Using a thousands chart</li> <li>Rounding</li> <li>Column Addition (carrying)</li> <li>Borrowing/Regrouping (subtraction)</li> <li>Counting Money</li> <li>Making Change</li> <li><b>Problem Solving:</b> Exact vs. Estimate, Multi-step Problems, Looking for Patterns</li> <li><b>Vocabulary:</b> sum, difference, estimate, addends, decimal point</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>Identifying parts of a graph</li> <li>Graph creation (Creating an appropriate scale, labels, key, and/or title)</li> <li>Determining which graph is best to use</li> <li>Create/Use a survey or investigation to address a question</li> <li>Patterns in data</li> <li>Interpreting data</li> <li>Formula/strategies for median, range, and mode</li> <li><b>Problem Solving:</b> Problem solving steps, choosing the right operation, Guess-and-Check strategy</li> <li><b>Vocabulary:</b> key, scale, coordinate grid, ordered pair, cluster, stem, leaf, mode, median, range, variable</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>Skip-counting</li> <li>Repeated Addition</li> <li>Memorization of math facts and families</li> <li>Counting Money</li> <li>Making Change</li> <li><b>Problem Solving:</b> Multi-step Problems, Looking for Patterns, Decision Making</li> <li><b>New Vocabulary:</b> array, factors, product, multiple, square number</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>Interpreting data</li> <li>Formula/strategies for median, range, and mode</li> <li>Reading and writing numbers through millions</li> <li>Skip-counting by 1,000s</li> <li>Greater than/less than relationships</li> <li>Rounding to nearest hundred/thousand</li> <li><b>Problem Solving:</b> Make an Organized List, Scheduling (Time), Draw a picture, Look for a pattern, Use logical reasoning</li> <li><b>New Vocabulary:</b> place value, digits, period, ways to write a number (expanded form, standard form, word name), compare, order, estimate, rounding</li> </ul>
<b>Assessment</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>Chapter Quizzes</li> <li>Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>Chapter Quizzes</li> <li>Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>Chapter Quizzes</li> <li>Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>Chapter Quizzes</li> <li>Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>
<b>Resources</b>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, Flash Cards</p>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, Flash Cards</p>

<b>Standard Alignment</b>	Grade 4 Math MST MATH.1.5, MATH.1.9, MATH.1.12, MATH.1.23, MATH.1.25, MATH.2.1, MATH.2.4, MATH.2.5, MATH.2.6	
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# Fourth Grade Math Map

Grade: PK to 5

Course: Elementary Math

South Seneca Senior High School

Developed by: *Deb Stasierowski, Leo Guelpa, Roberta Beckhorn, Stacey Clark*

From: September 2008 to June 2009 (10 months)

Map Status: In Progress - Shared

Mapping Category	November 2008	December 2008
<b>Theme</b>	<p>Math Group - Finish Chapter 4-A: <i>Understanding Multiplication</i>, Begin, Chapter 5: <i>Multiplying by one-digit factors</i></p> <p>Math Homeroom - Finish Chapter 2: <i>Place Value and Time</i>; Begin Chapter 8: <i>Using Geometry</i></p> <p>NYS Standards: Grade 4 MathMST MATH.1.1, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.9, MATH.1.10, MATH.1.13, MATH.1.14, MATH.1.15, MATH.1.16, MATH.1.17, MATH.1.18, MATH.1.20, MATH.1.21, MATH.1.23, MATH.1.25, MATH.2.2, MATH.2.4, MATH.2.6, MATH.2.7, MATH.2.8, MATH.2.9, MATH.3.1, MATH.3.2, MATH.3.3, MATH.3.4, MATH.3.5, MATH.3.6, MATH.3.8, MATH.3.9, MATH.3.10, MATH.3.11, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.6, MATH.5.2, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.5, MATH.1.6, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.13, MATH.1.15, MATH.1.18, MATH.1.27, MATH.2.1, MATH.2.2, MATH.2.3, MATH.2.4, MATH.2.5, MATH.3.1, MATH.3.5, MATH.3.8, MATH.4.8, MATH.4.9, MATH.4.10, MATH.5.2, MATH.5.5</p>	<p>Math Group - Finish Chapter 5: <i>Multiplying by one-digit factors</i></p> <p>Math Homeroom - Finish Chapter 8 sections A &amp; B: <i>Using Geometry</i></p> <p>NYS Standards: Grade 4 MathMST MATH.1.1, MATH.1.2, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.8, MATH.1.11, MATH.1.12, MATH.1.13, MATH.1.16, MATH.1.17, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.23, MATH.2.1, MATH.2.2, MATH.2.5, MATH.2.6, MATH.2.7, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.5, MATH.4.6, MATH.4.7, MATH.5.1, MATH.5.2, MATH.5.4, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.9, MATH.5.10, MATH.1.6, MATH.1.13, MATH.1.16, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.27, MATH.3.1, MATH.3.3, MATH.3.4, MATH.3.5, MATH.3.6, MATH.3.7, MATH.3.8</p>
<b>Content</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Patterns in Multiplying (0-12)</li> <li>• Multiplication Number Sense</li> <li>• Multiplying Tens</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Rounding Numbers</li> <li>• Telling Time</li> <li>• Elapsed Time</li> <li>• Exploring the Calendar</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Multiplying 2 and 3-digit Numbers</li> <li>• Multiplying Money</li> <li>• Multiplying 3 factors</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Solids (Cube, Rectangular Prism, Pyramid, Cone, Sphere, Cylinder)</li> <li>• Polygons (Triangle, Quadrilateral, Pentagon, Hexagon, Octagon)</li> <li>• Triangles and Angles (Obtuse, Right, Acute, Straight)</li> <li>• Congruent and Similar</li> <li>• Lines and Line Segments</li> <li>• Symmetry</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>
<b>Skills</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Memorization of math facts and families</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Steps for multi-step vertical multiplication</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Problem Solving:</b> Solve a simpler problem, Looking for Patterns, Use Objects - Act it out</li> <li>• <b>New Vocabulary:</b> array, factors, product, multiple</li> </ul> <p>Math Homeroom-</p> <ul style="list-style-type: none"> <li>• Skip counting by five's</li> <li>• AM vs. PM</li> <li>• Writing times - Reading times</li> <li>• exact time vs. estimated time</li> <li>• fractions of an hour</li> <li>• adding/subtracting hours and minutes</li> <li>• Time Conversions (seconds, minutes, hours, days, weeks, months, year, decade, century)</li> <li>• Rounding to nearest hundred/thousand</li> <li>• <b>Problem Solving:</b> Scheduling (Time), Look for a pattern, Use logical reasoning</li> <li>• <b>New Vocabulary:</b> analog clock, digital clock, A.M., P.M., elapsed time, ordinal number</li> </ul>	<p>problems</p> <ul style="list-style-type: none"> <li>• Manipulating 3-factor problems into two workable steps</li> <li>• Memorization of math facts and families</li> <li>• <b>Problem Solving:</b> Decision making, Analyzing multi-step word problems, making a table</li> <li>• <b>New Vocabulary:</b> grouping property</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Memorizing names of solids, plane figures (polygons and quadrilaterals), triangles, angles, and lines</li> <li>• Comparing shapes for similarities and differences with respect to size, shape and position</li> <li>• Recognizing shapes in their environment</li> <li>• Recognizing and creating symmetry</li> <li>• Using a symmetry tool</li> <li>• <b>Problem Solving:</b> Make a Table, Guess and Check, Using Objects to Act it Out</li> <li>• <b>New Vocabulary:</b> solid figure (Cube, Rectangular Prism, Pyramid, Cone, Sphere, Cylinder), face, edge, vertex, plane figure (Triangle, Quadrilateral, Pentagon, Hexagon, Octagon), polygon, equilateral, isosceles, scalene, ray, angle (right, acute, obtuse), congruent, flip, turn, slide, similar, line (intersecting, parallel, perpendicular), line segment, point, quadrilateral (parallelogram, square, rectangle, rhombus, trapezoid), line of symmetry, diagonal</li> </ul>
<b>Assessment</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>
<b>Resources</b>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, flash cards</p>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, flash cards</p>

# Fourth Grade Math Map

Grade: PK to 5

Course: Elementary Math

South Seneca Senior High School

Developed by: *Deb Stasierowski, Leo Guelpa, Roberta Beckhorn, Stacey Clark*

From: September 2008 to June 2009 (10 months)

Map Status: In Progress - Shared

Mapping Category	January 2009	February 2009
<b>Theme</b>	<p>Math Group - Chapter 6: Multiplying by 2-Digit Factors</p> <p>Math Homeroom - Finish Chapter 8: <i>Using Geometry</i>; Begin Chapter 9: <i>Fractions</i></p> <p>NYS Standards: Grade 4 MathMST MATH.1.1, MATH.1.2, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.8, MATH.1.9, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.13, MATH.1.14, MATH.1.17, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.22, MATH.1.23, MATH.2.1, MATH.2.2, MATH.2.5, MATH.2.6, MATH.2.7, MATH.2.8, MATH.2.9, MATH.3.1, MATH.3.2, MATH.3.3, MATH.3.4, MATH.3.5, MATH.3.6, MATH.3.7, MATH.3.8, MATH.3.9, MATH.3.10, MATH.3.11, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.5, MATH.4.6, MATH.4.7, MATH.4.8, MATH.5.1, MATH.5.2, MATH.5.3, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.4.1, MATH.4.2, MATH.4.3</p>	<p>Math Group - Chapter 4B &amp; C: Understanding and Extending Division</p> <p>Math Homeroom - Continue Chapter 9: <i>Fractions</i>, Chapter 10C: <i>Using Customary Measurement</i></p> <p>NYS Standards: Grade 4 MathMST MATH.2.1, MATH.2.2, MATH.2.5, MATH.2.7, MATH.2.9, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.6, MATH.4.7, MATH.4.8, MATH.5.1, MATH.5.2, MATH.5.3, MATH.5.5, MATH.5.6, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.7, MATH.1.8, MATH.1.9, MATH.1.16, MATH.1.17, MATH.1.20, MATH.1.21, MATH.1.22, MATH.1.23, MATH.2.1, MATH.2.2, MATH.2.4, MATH.2.5</p>
<b>Content</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Patterns in Multiplying</li> <li>• Estimating Products</li> <li>• Multiplying by Multiples of ten</li> <li>• Multiplying with 2-digit factors</li> <li>• multiplying money</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Perimeter</li> <li>• Area</li> <li>• Volume</li> <li>• Exploring fractions</li> <li>• Estimating Fractional amounts</li> <li>• Mixed numbers and Improper Fractions</li> <li>• Equivalent fractions</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Meaning of division</li> <li>• Word problems</li> <li>• Division with single digits</li> <li>• Odd and Even</li> <li>• Factors</li> </ul> <p>Math Homeroom-</p> <ul style="list-style-type: none"> <li>• Equivalent fractions</li> <li>• simplest form</li> <li>• comparing fractions</li> <li>• fraction of a set</li> <li>• Weight</li> <li>• Capacity</li> <li>• Length</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>
<b>Skills</b>	Math Group -	Math Group -

	<ul style="list-style-type: none"> <li>• Multiplication problems with zeroes</li> <li>• rounding to the nearest ten</li> <li>• Carrying when you multiply</li> <li>• vertical two-digit multiplication steps</li> <li>• <b>Problem Solving:</b> Draw a picture, Look for a pattern, Use objects, overestimating/underestimating</li> <li>• <b>New Vocabulary:</b> none</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Calculating perimeter</li> <li>• calculating area of rectangles</li> <li>• calculating volume of rectangular prisms</li> <li>• measuring shapes</li> <li>• naming and writing fractions</li> <li>• comparing fractional amounts to fractions</li> <li>• converting mixed numbers to improper fractions</li> <li>• converting improper fractions to mixed numbers</li> <li>• recognizing equivalent fractions</li> <li>• finding equivalent fractions</li> <li>• <b>Problem Solving:</b> Draw a picture, Use objects</li> <li>• <b>New Vocabulary:</b> perimeter, area, volume, square units, cubic units, fraction, numerator, denominator, benchmark, mixed number, improper fraction, equivalent fractions</li> </ul>	<ul style="list-style-type: none"> <li>• dividing means creating groups</li> <li>• creating and reading multiplication and division stories</li> <li>• division facts (0-9)</li> <li>• patterns with odd and even numbers</li> <li>• prime numbers</li> <li>• <b>Problem Solving:</b> working backward, look for a pattern, make a list, use objects</li> <li>• <b>New Vocabulary:</b> fact family, quotient, divisor, dividend, even, odd, prime, composite</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• using division to find simplest form</li> <li>• ordering fractions</li> <li>• comparing fractions using <math>&lt;</math>, <math>&gt;</math>, and <math>=</math></li> <li>• finding the fraction of a set using multiplication and division as well as manipulatives</li> <li>• recognizing equivalent fractions</li> <li>• finding equivalent fractions using multiplication</li> </ul> <ul style="list-style-type: none"> <li>• customary units of weight, length, and capacity</li> <li>• understanding and converting units using the table of measures</li> <li>• Select appropriate tools and units for measuring length, capacity and weight.</li> <li>• Use a ruler to measure to the nearest standard unit</li> <li>• <b>Problem Solving:</b> look for a pattern, use objects</li> <li>• <b>New Vocabulary:</b> simplest form, ounce, pound, ton, scale, capacity, cup, pint, quart, tablespoon, teaspoon, gallon, fluid ounce</li> </ul>
<p><b>Assessment</b></p>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom-</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide</li> </ul>

	reasoning, Q & A...) of problem-solving	reasoning, Q & A...) of problem-solving
<b>Resources</b>	Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, flash cards, computer programs that simulate congruent tasks	Scott Foresman - Addison Wesley Text, Practice Sheets, Hands-on manipulatives, flash cards, computer programs that simulate congruent tasks

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Map Status: In Progress - Shared

Mapping Category	March 2009	April 2009
<b>Theme</b>	<p>Math Group - Chapter 7: <i>Dividing by 1-digit divisors</i></p> <p>Math Homeroom - Chapter 10A: <i>Adding fractions</i>, Chapter 11C: <i>Metric measurement</i></p> <p><u>State Test Prep</u></p> <p>NYS Standards: Grade 4 MathMST MATH.1.2, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.8, MATH.1.9, MATH.1.10, MATH.1.12, MATH.1.13, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.23, MATH.1.24, MATH.1.25, MATH.2.1, MATH.2.6, MATH.2.7, MATH.2.8, MATH.2.9, MATH.5.1, MATH.5.2, MATH.5.3, MATH.5.4, MATH.5.5, MATH.5.7, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.2, MATH.1.5, MATH.1.7, MATH.1.8, MATH.1.11, MATH.1.13, MATH.1.21, MATH.1.22, MATH.1.23, MATH.2.1, MATH.2.4, MATH.2.5, MATH.4.3, MATH.4.4, MATH.4.6, MATH.4.7, MATH.4.8</p>	<p>Math Group - Finish Chapter 7: <i>Dividing by 1-digit divisors</i>; Begin Chapter 12A: <i>Dividing by 2-digit divisors</i></p> <p>Math Homeroom - Chapter 10A + B: <i>Adding &amp; Subtracting fractions</i></p> <p>NYS Standards: Grade 4 MathMST MATH.1.1, MATH.1.3, MATH.1.5, MATH.1.6, MATH.1.9, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.14, MATH.1.18, MATH.1.21, MATH.1.23, MATH.1.25, MATH.2.1, MATH.2.2, MATH.2.3, MATH.2.5, MATH.4.1, MATH.4.3, MATH.4.4, MATH.4.5, MATH.4.6, MATH.4.7, MATH.4.8, MATH.5.1, MATH.5.5, MATH.5.6, MATH.5.8, MATH.5.9, MATH.5.10, MATH.1.4, MATH.1.5, MATH.1.8, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.15, MATH.1.16, MATH.1.17, MATH.1.20, MATH.1.24, MATH.1.25, MATH.1.26, MATH.1.27, MATH.4.8</p>
<b>Content</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Division patterns</li> <li>• estimating</li> <li>• division with remainders</li> <li>• division with money</li> <li>• mean</li> <li>• divisibility</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Adding fractions with like denominators</li> <li>• Adding fractions with unlike denominators</li> <li>• Metric Units</li> <li>• Mass, Capacity, Length, Temperature</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• division with remainders</li> <li>• division with money</li> <li>• mean</li> <li>• divisibility</li> <li>• dividing by tens</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Subtracting fractions with like denominators</li> <li>• subtracting fractions with unlike denominators</li> <li>• Algebra</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>
<b>Skills</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• using rounding to estimate quotients</li> <li>• meaning of remainders</li> <li>• long division steps</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• long division steps</li> <li>• 2 and 3-digit dividends</li> <li>• 2 and 3-digit quotients</li> </ul>

	<ul style="list-style-type: none"> <li>• 2 and 3-digit dividends</li> <li>• 2 and 3-digit quotients</li> <li>• dividing with zeroes in the dividend and quotient</li> <li>• how to find the mean</li> <li>• divisibility rules</li> <li>• <b>Problem Solving:</b> guess and check, look for a pattern, use objects, logical reasoning</li> <li>• <b>New Vocabulary:</b> remainder, mean, average, divisible</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• using division to find simplest form</li> <li>• finding equivalent fractions using multiplication</li> <li>• adding numerators</li> <li>• steps for adding fractions</li> <li>• steps for finding simplest form</li> </ul> <ul style="list-style-type: none"> <li>• metric units of length, capacity, mass and temperature</li> <li>• converting metric units to larger/smaller metric units</li> </ul> <ul style="list-style-type: none"> <li>• understanding and converting units using the table of measures</li> <li>• Select appropriate tools and units for measuring length, capacity and weight.</li> <li>• Use a ruler to measure to the nearest standard unit</li> <li>• <b>Problem Solving:</b> look for a pattern, use objects</li> <li>• <b>New Vocabulary:</b> centimeter, meter, decimeter, kilometer, gram, kilogram, capacity, liter, milliliter, Celsius, Fahrenheit</li> </ul>	<ul style="list-style-type: none"> <li>• dividing with zeroes in the dividend and quotient</li> <li>• how to find the mean</li> <li>• divisibility rules</li> <li>• using front-end estimation when dividing by two digit numbers</li> <li>• <b>Problem Solving:</b> look for a pattern, use objects</li> <li>• <b>New Vocabulary:</b> none</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• using division to find simplest form</li> <li>• finding equivalent fractions using multiplication</li> <li>• subtracting numerators</li> <li>• steps for subtracting fractions</li> <li>• steps for finding simplest form</li> <li>• using fact families to manipulate algebraic number sentences</li> <li>• <b>Problem Solving:</b> guess and check, logical reasoning, use objects</li> <li>• <b>New Vocabulary:</b> none</li> </ul>
<b>Assessment</b>	<p>Math Group-</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide</li> </ul>

	reasoning, Q & A...) of problem-solving	reasoning, Q & A...) of problem-solving
<b>Resources</b>	Scott Foresman - Addison Wesley Text, Practice Sheets, hands-on manipulatives, flash cards, computer programs that simulate congruent tasks	Scott Foresman - Addison Wesley Text, Practice Sheets , hands-on manipulatives, flash cards, computer programs that simulate congruent tasks

# Fourth Grade Math Map

Grade: PK to 5

Course: Elementary Math

South Seneca Senior High School

Developed by: *Deb Stasierowski, Leo Guelpa, Roberta Beckhorn, Stacey Clark*

From: September 2008 to June 2009 (10 months)

Map Status: In Progress - Shared

Mapping Category	May 2009	June 2009
<b>Theme</b>	<p>Math Group - Continue Chapter 12A: <i>Dividing by 2-digit divisors</i></p> <p>Math Homeroom - Chapter 11: Understanding Decimals</p> <p>NYS Standards: Grade 4 MathMST MATH.1.1, MATH.1.3, MATH.1.5, MATH.1.8, MATH.1.9, MATH.1.10, MATH.1.12, MATH.1.13, MATH.1.16, MATH.1.18, MATH.1.25, MATH.2.1, MATH.2.2, MATH.4.1, MATH.4.2, MATH.4.3, MATH.4.4, MATH.4.6, MATH.1.4, MATH.1.5, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.24, MATH.1.25, MATH.1.26, MATH.1.27, MATH.2.1, MATH.2.2, MATH.4.1, MATH.4.2, MATH.4.8</p>	<p>Math Group - Finish Chapter 12A: <i>Dividing by 2-digit divisors</i>, Review of this year's math chapters</p> <p>Math Homeroom - Chapter 12B: <i>Probability</i>; Review of this year's math chapters</p> <p>NYS Standards: Grade 4 MathMST MATH.2.1, MATH.2.2, MATH.2.6, MATH.2.9, MATH.4.1, MATH.4.2, MATH.4.4, MATH.4.5, MATH.4.6, MATH.4.7, MATH.4.8, MATH.1.8, MATH.1.10, MATH.1.11, MATH.1.12, MATH.1.13, MATH.1.16, MATH.1.17, MATH.1.18, MATH.1.19, MATH.1.20, MATH.1.21, MATH.1.22, MATH.1.24, MATH.1.26, MATH.4.1, MATH.4.5, MATH.4.7, MATH.4.8</p>
<b>Content</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• division with remainders</li> <li>• division with money</li> <li>• dividing by tens</li> <li>• Dividing with two-digit divisors</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Reading and Writing Decimals</li> <li>• Decimals and Place Value</li> <li>• Decimals and Fractions</li> <li>• Ordering and comparing decimals</li> <li>• Adding and Subtracting with decimals</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• division with remainders</li> <li>• division with money</li> <li>• dividing by tens</li> <li>• Dividing with two-digit divisors</li> <li>• Solving word problems</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Decimals and Place Value</li> <li>• Probability and fractions</li> <li>• Chances</li> <li>• Explore, examine, make observations of and connections to real-world mathematical situations</li> <li>• collaborate to solve problems</li> <li>• explore the use of manipulatives and problem-solving strategies in literature and other disciplines</li> </ul>
<b>Skills</b>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• long division steps</li> <li>• 2 and 3-digit dividends</li> <li>• 2 and 3-digit quotients</li> <li>• dividing with zeroes in the dividend and quotient</li> <li>• review of two-digit multiplication</li> <li>• checking your work</li> <li>• practice two-digit division</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• long division steps</li> <li>• review of two-digit multiplication</li> <li>• checking your work</li> <li>• practice multi-digit division</li> <li>• <b>Problem Solving:</b> all strategies</li> <li>• <b>New Vocabulary:</b> none</li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Problem Solving:</b> decision making, looking for patterns</li> <li>• <b>New Vocabulary:</b> none</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• decimal word names</li> <li>• converting decimals to fractions and fractions to decimals</li> <li>• using manipulatives to represent decimals</li> <li>• Use hundredths chart</li> <li>• place value and decimal point relationships</li> <li>• rounding with decimals</li> <li>• Adding/subtracting decimal amounts</li> <li>• <b>Problem Solving:</b> make an organized list</li> <li>• <b>New Vocabulary:</b> decimal, tenths, hundredths</li> </ul>	<p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• exploring chances</li> <li>• determining fairness</li> <li>• determine whether statements are true or false and explain reasoning</li> <li>• test arguments</li> <li>• prove/disprove arguments using examples</li> <li>• <b>Problem Solving:</b> guess and check, logical reasoning, use objects</li> <li>• <b>New Vocabulary:</b> likely, unlikely, impossible, certain, outcome, fair, equally likely, tree diagram, probability, prediction</li> </ul>
<p><b>Assessment</b></p>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>	<p>Math Group -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Mad Minutes (On-demand computation assessments)</li> </ul> <p>Math Homeroom -</p> <ul style="list-style-type: none"> <li>• Chapter Quizzes</li> <li>• Written/oral explanations and guided discussions (restating other strategies, considering other solutions, provide reasoning, Q &amp; A...) of problem-solving</li> </ul>
<p><b>Resources</b></p>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, hands-on manipulatives, flash cards</p>	<p>Scott Foresman - Addison Wesley Text, Practice Sheets, hands-on manipulatives, flash cards</p>