

RSU 54/MSAD 54 Math Curriculum

Content Area: Math
Unit: Operations and Algebraic Thinking

Grade: Grade 5

Common Core State Standards Domain: Operations and Algebraic Thinking

Common Core State Standards	RSU 54/MSAD 54 Objectives	Instructional Resources/Activities
<p>Write and interpret numerical expressions.</p> <p>1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. <i>For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</i></p> <p>Analyze patterns and relationships.</p> <p>3. Generate two numerical patterns using two given rules. Identify apparent</p>	<p>Write and interpret numerical expressions.</p> <p>1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p> <p>2a. Write simple expressions and record calculations with numbers.</p> <p>2b. Interpret numerical expression without evaluating them.</p> <p>Analyze patterns and relationships.</p> <p>3a. Generate two numerical patterns using two given rules.</p>	<p>1. <u>Scott Foresman</u>, Lesson 2-12 1. <u>Scott Foresman</u>, Lesson 3-13 1. Game: “Krypto” 1. Game: “Contig” (resource packet)</p> <p>2a-b. Games: “Go For It...I Got It,” “X-traordinary,” (resource packet) 2a-b. K-5MathTeachingResources.com (resource pkt) *Verbal Expressions</p> <p>3a-b. <u>Scott Foresman</u>, Lessons 3-14, 3-15.</p>

<p>relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. <i>For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.</i></p>	<p>3b. Identify relationships between corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.</p> <p>Gain familiarity with factors and multiples.</p> <p>4a. Determine if a single-digit number is a factor of a given whole number.</p> <p>4b. Determine if a whole number is a multiple of a given single digit number.</p> <p>4c. Recognize that a whole number is a multiple of each of its factors.</p> <p>4d. List the factor pairs of a given whole number up to 100.</p> <p>4e. Determine whether a given number 1-100 is prime or composite</p>	<p>3a-b. K-5MathTeachingResources.com (resource pkt) *Addition on the Coordinate Plane *Subtraction on the Coordinate Plane</p> <p>4a-d. <u>Scott Foresman</u>, Lesson 3-10 4a-d. <u>Teaching Arithmetic: Extending Division</u>, Ch. 3, 7, 8, 9, 14, 15</p> <p>4b-c. Games: “Multiple Rally,” “Divisibility Search” (resource packet)</p> <p>4d. Games: “Factor Search,” “Divisibility Search” (resource packet)</p> <p>4e. <u>Scott Foresman</u>, Lesson 3-11 4e. <u>Zeroing In On Number and Operations</u>, <i>Finding Primes, Prime Builders</i></p>
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	<p>(Prime numbers are numbers with exactly 2 factors: 1 and the number itself.)</p>	<p>4e. Game: "Prime or Not?" (resource packet)</p>
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RSU 54/MSAD 54 Math Curriculum

Content Area: Math
Unit: Number and Operations in Base Ten

Grade: Grade 5

Common Core State Standards Domain: Number and Operations in Base Ten

Common Core State Standards	RSU 54/MSAD 54 Objectives	Instructional Resources/Activities
<p>Understand the place value system.</p> <p>1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.</p> <p>3. Read, write, and compare decimals to thousandths.</p> <p>3a. Read and write decimals to thousandths using base-ten numerals,</p>	<p>Understand the Place Value System</p> <p>1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.</p> <p>2a. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10.</p> <p>2b. Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.</p> <p>2c. Use whole-number exponents to denote powers of 10.</p> <p>3a. Read, write, and compare decimals to thousandths (using base-ten numerals, number</p>	<p>1. <u>Scott Foresman</u>, Lesson 1-1</p> <p>1. <u>Zeroing In On Number and Operations, Millions and Billions, Place Value</u></p> <p>1. Explorelearning.com -Cannon Ball Clowns -Modeling Decimals -Treasure Hunter</p> <p>1. Games: “Close to 100,” “Close to 1000,” “Target Amounts,” “Go For Broke!” (resource packet)</p> <p>2a. <u>Scott Foresman</u>, Lessons 2-1, 2-7.</p> <p>2a. Games: “Multiplication Fill In,” “Product Comparing” (resource packet)</p> <p>2b. <u>Scott Foresman</u>, Lesson 2-7</p> <p>2a-c: K-5MathTeachingResource.com (resource pkt) *Multiplying a whole # by a Power of 10 *Multiplying a decimal by a power of 10 *Dividing a decimal by a power of 10</p> <p>2c. <u>Scott Foresman</u>, Lesson 1-5 (Enrichment, p. 17)</p> <p>3a. <u>Scott Foresman</u>, Lessons 1-2, 1-3, 1-4</p>

<p>number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.</p> <p>3b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>4. Use place value understanding to round decimals to any place</p> <p>Perform operations with multi-digit whole numbers and with decimals to hundredths.</p> <p>5. Fluently multiply multi-digit whole numbers using the standard algorithm.</p> <p>6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of</p>	<p>names, and expanded form).</p> <p>3b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>4. Use place value understanding to round decimals to any place.</p> <p>Perform operations with multi-digit whole numbers and with decimals to hundredths.</p> <p>5. Multiply multi-digit whole numbers using the standard algorithm.</p> <p>6a. Solve whole number quotients with up to four digit dividends and two-digit divisors (students will use strategies based on place value, properties of operations, and/or the relationship between</p>	<p>3a. <u>Zeroing In On Number and Operations, Making Sense with Thousandths</u> 3a. Games: “Roll a Whole, “Making Sense of Decimals,” “Decimal Roll,” “Target Decimals,” “Make One with Decimals,” “Get Them in Order Decimals,” “Decimal Sum Comparing,” “From Here to There Decimals” (resource packet) 3a. K-5MathTeachingResource.com (resource pkt) *Representing decimals in different ways *Hunt for decimals *Representing decimals with base 10 blocks</p> <p>3b. <u>Scott Foresman</u>, Lesson 1-4 3b. <u>Teaching Arithmetic: Decimals and Percents</u>, Ch. 3, 4, 6, 7 3b. Game: “Decimal Number Maker” (resource packet)</p> <p>4. <u>Scott Foresman</u>, Lesson 1-8 4. K-5MathTeachingResource.com (resource pkt) *Rounding decimals to the nearest hundredth</p> <p>5. <u>Scott Foresman</u>, Lesson 2-4 5. <u>Teaching Arithmetic: Extending Multiplication</u>, Ch. 12, 13 5. Games: “Big Double Trouble,” “Target Products” (resource packet)</p> <p>6a. <u>Scott Foresman</u>, Lessons 3-2, 3-3, 3-5 to 3-8, 4-2, 4-4, 4-5, 4-7 6a. <u>Zeroing In On Number and Operations, Connecting Division to Multiplication, Understanding Division Algorithms, Working with Remainders, Estimating Quotients</u> 6a. K-5MathTeachingResource.com (resource pkt) *Interpreting remainders lesson</p>
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<p>operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>multiplication and division.)</p>	<p>6a. Teacher Created Materials 5th gr. Division, (resource packet) 6a. Games: “Keep the Leftovers,” “Quotient Comparing,” “Hit 1,000,” “Multiplication Arrays,” “Target Quotients” (resource packet) 6a-b. <u>Teaching Arithmetic: Extending Division</u>, Ch. 5, 6, 11, 12, 13</p>
<p>7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.</p>	<p>6b. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area of models.</p> <p>7a. Add, subtract, multiply, and divide decimals to hundredths.</p> <p>7b. Solve problems with decimals using concrete models or drawings and strategies based on place value.</p> <p>7c. Solve problems with decimals using the relationship between addition and subtraction.</p>	<p>6b. <u>Scott Foresman</u>, Lesson 3-1</p> <p>7a. <u>Scott Foresman</u>, Lessons 1-12, 1-13, 2-7 to 2-11, 3-9, 4-9, 4-11 7a. <u>Zeroing In On Number and Operations, Estimating Decimals, Adding and Subtracting Decimals, Multiplying Decimals with Arrays, Dividing Decimals</u> 7a. Game: “Go for Zero with Decimals” (resource packet) 7b. <u>Scott Foresman</u>, Lesson 1-12 Reteaching Activity</p>
	<p>7d. Relate the strategy (7a and 7b) to a written calculation method and explain the reasoning used in solving the decimal problem.</p>	<p>7c. <u>Teaching Arithmetic: Decimals and Percents</u>, Ch. 8</p> <p>K-5MathTeachingResource.com (resource pkt) *Decimal Addition to 500 *Decimal Addition Bingo *Decimal Race to Zero *Decimal Magic Triangle *Magic Squares Addition Decimals *Base Ten Buildings with Decimals *Decimal cross number puzzles *Base Ten Decimal Bag: addition *Base Ten Decimal Bag: subtraction *Total ten *Decimal Subtraction Spin *Base Ten Pictures with Decimals</p> <p>Additional Resource: Calendar Math</p>

RSU 54/MSAD 54 Math Curriculum

Content Area: Math

Grade: Grade 5

Unit: Number and Operations--Fractions

Common Core State Standards Domain: Number and Operations--Fractions

Common Core State Standards	RSU 54/MSAD 54 Objectives	Instructional Resources/Activities
<p>Use equivalent fractions as a strategy to add and subtract fractions.</p> <p>1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. <i>For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)</i></p> <p>2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. <i>For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.</i></p>	<p>Use equivalent fractions as a strategy to add and subtract fractions.</p> <p>1. Add and subtract fractions with unlike denominators (including mixed numbers). Students will do this by: replacing fractions with equivalent fractions that have like denominators.</p> <p>2a. Solve word problems involving addition and subtraction of fractions by using visual fraction models or equations to represent the problem.</p> <p>2b. Use benchmark fractions, number sense, and estimation</p>	<p>1. <u>Teaching Arithmetic: Introducing Fractions</u>, Ch. 15 (resource packet)</p> <p>1. <u>Teaching Arithmetic: Extending Fractions</u>, Ch. 9, 11- 14</p> <p>1. <u>Scott Foresman</u>, Lessons 8-1 to 8-8</p> <p>1. <u>Zeroing In On Number and Operations, Greatest Common Factor and Least Common Multiple, Problem Solving with Greatest Common Factor and Least Common Multiple, Adding and Subtracting Fractions with Pattern Blocks, Adding and Subtracting Fractions</u></p> <p>1. Games: “Make a Pound,” “Make One with Fractions” (resource packet)</p> <p>2a. <u>Teaching Arithmetic: Extending Fractions</u>, Ch. 10, Assessments, p. 163-185</p> <p>2a. <u>Scott Foresman</u>, Lesson 7-16</p> <p>2a. K-5MathTeachingResources.com (res. pkt)</p> <p>*Using Equivalent Fractions to Subtract Fractions</p> <p>*Addition Word Problems w/ Fractions</p> <p>*Subtraction Word Problems w/Fractions</p> <p>*The Wishing Club (Read aloud)</p> <p>*Fraction Word Problems (Unlike Denominators)</p> <p>*Mixed Number Word Problems (Unlike Denominator)</p> <p>*Closest to 25</p> <p>2b. <u>Teaching Arithmetic, Introducing Fractions</u>, Ch. 6, 7, 8.</p> <p>2b. Fraction Kits, Number Lines</p>

<p>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p> <p>3. Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. <i>For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?</i></p> <p>4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.</p> <p>4a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. <i>For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)</i></p>	<p>to mentally assess the reasonableness of the answer.</p> <p>Apply and extend previous understandings of multiplication and division to multiply and divide fractions.</p> <p>3a. Interpret a fraction as division of the numerator by the denominator.</p> <p>3b. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers. Students will use visual fraction models or equations to represent the problem.</p> <p>4a. Interpret the product of multiplying a fraction as repeated addition with equal parts. For example, $2/3 \times 4 = 8/3$ OR $2 \frac{2}{3}$</p> <p>4b. Develop an</p>	<p>2b. Game: “Target Fractions” (resource packet)</p> <p>3a. <u>Scott Foresman</u>, Lesson 7-2 3a. <u>Teaching Arithmetic: Introducing Fractions</u>, Ch. 11 3a. Games: “Ready, Set, Fraction!” (res. pkt)</p> <p>3b. <u>Scott Foresman</u>, Investigating the Concept 7-2 3b. <u>Scott Foresman</u>, Enrichment Worksheet 7-2 3b. <u>Scott Foresman</u>, Test Taking Practice 7-2 3b. Game: “From Here to There Fractions” (resource packet)</p> <p>4a. <u>Teaching Arithmetic: Multiplying and Dividing Fractions</u>, Ch. 1, 2 4a. <u>Scott Foresman</u>, Reteaching Lesson 8-10 4a. Game: “Running with Fractions,” “Fraction Sum Reject” (resource packet)</p> <p>4b. <u>Teaching Arithmetic: Multiplying and</u></p>
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<p>4b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.</p> <p>5. Interpret multiplication as scaling (resizing), by:</p> <p>5a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.</p> <p>5b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $\frac{a}{b} = \frac{n \times a}{n \times b}$ to the effect of multiplying $\frac{a}{b}$ by 1.</p>	<p>understanding of multiplication of fractions (especially through the use of arrays with fractional sides).</p> <p>5a. Interpret multiplication as scaling and/or resizing by comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication. For example: Mr. Allen's garden is 40 feet wide and 20 feet long. Mrs. Smith's garden is half as long and the same width. How do the areas of the two gardens compare?</p> <p>5b. Understand that when multiplying a fraction greater than 1, the answer results in a product greater than the given number.</p> <p>5c. Understand that multiplying a given number by a fraction less than 1, results in a product smaller than the given number.</p>	<p><u>Dividing Fractions</u>, Ch. 1, 2, 4 4b. <u>Zeroing In On Number and Operations</u>, <i>Modeling Multiplication of Fractions</i>, <i>Multiplying Fractions with Arrays</i></p> <p>5a-d. <u>Scott Foresman</u>, Lessons 7-7 to 7-10</p>
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<p>6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.</p> <p>7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.¹</p> <p>7a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. <i>For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.</i></p> <p>7b. Interpret division of a whole number by a unit fraction, and compute such quotients. <i>For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.</i></p> <p>7c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual</p>	<p>5d. Relate the principle of fraction equivalence to the effect of multiplying the fraction by one.</p> <p>6. Solve real world problems involving multiplication of fractions and mixed numbers, by using fraction models or equations to represent the problem.</p> <p>7a. Interpret division of a unit fraction by a non-zero whole number and solve quotients. $(1/3) \div 4 = 1/12$</p> <p>7b. Interpret division of a whole number by a unit fraction, and solve. $4 \div (1/5) = 20$</p> <p>7c. Solve real world problems involving division of unit fractions by non-zero whole numbers and</p>	<p>6. <u>Zeroing In On Number and Operations</u>, <i>Posing Problems with Fractions</i></p> <p>7a. K-5MathTeachingResources.com (resource pkt) *Fraction x Mixed Number Word Problems *Whole Number x Mixed Number Models *Mixed Number x Fraction Models</p> <p>7b. <u>Teaching Arithmetic: Multiplying and Dividing Fractions</u>, Ch. 7, 8, 12</p> <p>7c. K-5MathTeachingResources.com *Fraction x Mixed Number Word Problems *Whole Number x Mixed Number Models *Mixed Number x Fraction Models</p>
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<p>fraction models and equations to represent the problem. <i>For example, how much chocolate will each person get if 3 people share $\frac{1}{2}$ lb of chocolate equally? How many $\frac{1}{3}$-cup servings are in 2 cups of raisins?</i></p> <p>¹ Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.</p>	<p>division of whole numbers by unit fractions.</p> <p>Extend understanding of fractions as numbers.</p> <p>8. Identify and represent fractions as parts of regions and sets and as locations on a number line.</p> <p>9. Express fractions greater than one as improper fractions and mixed numbers.</p> <p>10. Estimate with fractions.</p> <p>11. Identify and locate fractions and mixed numbers on the number line.</p> <p>12. Identify and write equivalent fractions.</p> <p>13. Compare and order fractions and mixed numbers.</p>	<p>8. <u>Scott Foresman</u>, Lesson 7-1 8. <u>Zeroing In On Number and Operations, Fractions on the Number Line</u></p> <p>9. <u>Scott Foresman</u>, Lesson 7-3</p> <p>10. <u>Scott Foresman</u>, Lesson 7-4</p> <p>11. <u>Scott Foresman</u>, Lesson 7-5</p> <p>12. <u>Scott Foresman</u>, Lessons 7-7 to 7-10 12. <u>Zeroing In On Number and Operations, Comparison of Fractions</u></p> <p>13. <u>Scott Foresman</u>, Lesson 7-11, 7-12 13. <u>Zeroing In On Number and Operations, Comparison of Fractions</u> 13. Games: "Get Them in Order Fractions,"</p>
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	<p>14. Relate fractions and decimals.</p>	<p>“From Here to There Fractions” (resource packet)</p> <p>14. <u>Scott Foresman</u>, Lesson 7-13, 7-14</p> <p>14. <u>Zeroing In On Number and Operations, Converting Fractions to Decimals, Equivalent Values</u></p> <p>14. Games: “Fraction/Decimal Concentration,” “Fraction/Decimal Match Up” (resource packet)</p> <p>Additional Resource: Calendar Math</p>
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RSU 54/MSAD 54 Math Curriculum

Content Area: Math
 Unit: Measurement and Data

Grade: Grade 5

Common Core State Standards Domain: Measurement and Data

Common Core State Standards	RSU 54/MSAD 54 Objectives	Instructional Resources/Activities
Convert like	Convert like	

<p>measurement units within a given measurement system.</p> <p>1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.</p> <p>Represent and interpret data.</p> <p>1. Make a line plot to display a data set of measurements in fractions of a unit ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.</p> <p>Geometric measurement: understand concepts of volume and relate</p>	<p>measurement units within a given measurement system.</p> <p>1. Convert different-sized standard measurement units within a given measurement system. Students will use multi-step and real world problems in measurement. For example convert 5 cm to 0.05 m.</p> <p>Represent and interpret data.</p> <p>1. Use fraction units such as $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{8}$th on a line plot to display a data set of measurements.</p> <p>2a. Use operations on fractions and solve problems presented on line plots.</p> <p>Geometric measurement: understand concepts of volume and relate</p>	<p>1. <u>Scott Foresman</u>, Lessons 9-1, 9-3, 9-4, 10-6, 10-7, 10-8, 10-9</p> <p>1. K-5MathTeachingResources.com (resource pkt) *Comparing Units of Metric Linear Measure *Metric Conversion Word Problems</p> <p>1. K-5MathTeachingResources.com *Fractions on a Line Plot *Sacks of Flour</p>
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<p>volume to multiplication and to addition.</p> <p>3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.</p> <p>-A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.</p> <p>-A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.</p> <p>4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units</p> <p>5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.</p> <p>-Find the volume of a right rectangular</p>	<p>volume to multiplication and to addition.</p> <p>3a. Understand that a cube with a side length 1 unit is called a unit cube. Students will understand that is called “one cubic unit.” As a result students will know that a unit cube can be used to measure volume.</p> <p>3b. Understanding that cubic units are packed without gaps or overlaps and the total of the cubes can be referred to as n cubic units.</p> <p>4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.</p> <p>5a. Find the volume of right rectangular prisms</p>	<p>3a-b. Activity: “How Many Boxes w/24 Cubes,” (resource packet)</p> <p>3a-b. <u>Scott Foresman</u>, Lesson 10-5</p> <p>4. <u>Scott Foresman</u>, Lesson 10-5</p> <p>4. <u>K-5MathTeachingResources.com</u> (resource pkt)</p> <p>*Build a Cubic Meter</p> <p>5a. <u>K-5MathTeachingResources.com</u> (resource pkt)</p> <p>*Designing a Toy Box</p>
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<p>prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.</p> <p>-Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> <p>-Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.</p>	<p>by packing them with unit cubes to show that the volume is the same as multiplying the height by the area of the base.</p> <p>5b. Students will apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of: rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.</p> <p>5d. Recognize volume as additive. I.e. The volume of 3-D shapes composed of two or more simple shapes can be found by finding the volume of each simple shape and then adding.</p>	<p>*Designing a Cereal Box</p> <p>5b. <u>Scott Foresman</u>, Lesson 10-5 K-5MathTeachingResources.com (resource pkt) *Roll a Rectangular Prism</p> <p>Additional Resource: Calendar Math</p>
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RSU 54/MSAD 54 Math Curriculum

Content Area: Math
Unit: Geometry

Grade: Grade 5

Common Core State Standards Domain: Geometry

Common Core State Standards	RSU 54/MSAD 54 Objectives	Instructional Resources/Activities
<p>Graph points on the coordinate plane to solve real-world and mathematical problems.</p> <p>1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).</p>	<p>Graph points on the coordinate plane.</p> <p>1. Plot points on the coordinate axis and name points that are already plotted.</p>	<p>1. <u>Scott Foresman</u>, Lesson 3-14 and 12-9</p> <p>1. Game: “Coordinate Bull’s Eye” (resource packet)</p> <p>1. K-5MathTeachingResources.com (resource pkt)</p> <p>*A Fly on the Ceiling (Read aloud)</p> <p>*Coordinate Grid Geoboards</p> <p>*Coordinate Shapes</p> <p>*Coordinate Grid Swap</p> <p>*Coordinate Grid Tangram</p> <p>*Geometric Shapes on the Coordinate Grid</p>

<p>2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.</p> <p>Classify two-dimensional figures into categories based on their properties.</p> <p>3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.</p> <p>4. Classify two-dimensional figures in a hierarchy based on properties.</p>	<p>2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values.</p> <p>Classify two-dimensional figures into categories based on properties.</p> <p>3. Understand that all 2-D figures within a category share the attributes of the category.</p> <p>4. Classify two-dimensional figures into sub categories based on properties (E.g. quadrilaterals, parallelograms, rectangles, squares.) Focus on number and types of angles, number and orientation of sides (parallel/perpendicular).</p>	<p>2. <u>Scott Foresman</u>, Lesson 5-3 2. Make and interpret line graphs for situations that arise in the classroom or in the context of other subjects.</p> <p>3. <u>Scott Foresman</u>, Lesson 6-6 3. K-5MathTeachingResources.com (resource pkt) *Identifying Quadrilaterals *Quadrilateral Criteria *Constructing Quadrilaterals *Quadrilateral Tangram Challenge</p> <p>4. K-5MathTeachingResources.com (resource pkt) *Quadrilateral Hierarchy Diagram *Triangle Hierarchy Diagram 1 *Regular/Irregular Hierarchy Diagram *Triangle Hierarchy Diagram 2</p>
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