

Portales Municipal Schools
CURRICULUM MAP

Subject:	Mathematics	May 2009	Grade Level:	Fifth Grade
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<p>1st Nine Weeks</p> <p><small>* Denotes items that are not tested on the Harcourt Quarterly Assessment.</small></p> <p><i>Process Standards:</i> Prob.-Sol/ Problem Solve, R&P/ Reason & Proof, Comm./Communication, Con./Connections Rep./Representation</p>	<p>1.A.1 Compare and order using concrete or illustrated models</p> <ul style="list-style-type: none"> • 1.A.1 Whole numbers (to millions) • Common fractions (halves, thirds, fourths, eighths)* • Decimals (thousandth) <p>1. A.2 Demonstrate understanding of the magnitude of the value of numbers from thousandths to millions, including common fractions.</p> <p>1. A.3 Represent place value using concrete or illustrated models up to one billion (1,000,000,000).</p> <p>1. A.5 Identify and represent on a number line decimals, fractions, and mixed numbers</p> <p>I. B.2 Add & Subtract decimals</p> <p>1. B.5 Use arithmetic operations and inverse relationships to represent and solve real-world problems.*</p> <p>1. B.6 Identify and represent on a number line decimals, fractions, and mixed numbers.</p> <p>1. C.1 Add, subtract, multiply, & divide whole numbers.</p> <p>1.C.2 Add and subtract decimals</p> <p>1. C.3 Use estimation strategies to verify the reasonableness of calculated results.</p> <p>1.C.5 Relate the basic arithmetic operations to one another (e.g., multiplication and division are inverse operations)</p> <p>2. B.1 Compute the value of expression for specific numerical values of the variable.*</p> <p>2. B.2 Use a letter to represent an unknown number.</p> <p>5. A.1 Construct, read, analyze, and interpret tables, charts, graphs, and data plots.</p> <p>5. A.2 Construct, interpret, and analyze data from graphical representations and draw simple conclusions using bar graphs, line graphs, circle graphs, frequency tables, and Venn diagrams.*</p> <p>5. A.3 Display, analyze, compare, and interpret different data sets, including data sets of different sizes.*</p> <p>5. A.4 Organize and display single-variable data in appropriate graphs and representations.</p> <p>5. A.5 Organize, read, and display numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including correct titles, labels, and intervals or categories including: pictorial displays, frequency tables, stem and leaf plots, bar, line, and circle graphs, Venn diagrams, and charts and tables.*</p> <p>5. A.6 Formulate questions & identify data to be collected to correctly answer a question.</p> <p>5. B.1 Organize and display single-variable data in appropriate graphs and representations and determine which types of graphs are appropriate for various data sets.*</p> <p>5. B.2 Use fractions and percentages to compare data sets of different sizes.*</p> <p>5. B.3 Correctly rank the values of a numerical data set containing simple fractions and decimals, identify maximum and minimum data values, and calculate the range for a set of data.*</p>
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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
1st Nine Weeks	<p>STRAND: NUMBER AND OPERATIONS 5-8</p> <p>Benchmark: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</p>	<p>Mastery Level</p> <p>1.A.1 Compare and order using concrete or illustrated models:</p> <ul style="list-style-type: none"> • whole numbers (to millions) 	<p>1.A.1 Suggested Harcourt Lessons: 1.1, 1.4, 1.5, 22.2, p. 91</p> <p>Assessment: Selected Chapter Review Items</p> <p>Literature Connections</p> <p>Describe instances where place value plays an important role in Rufus' business. Challenge students to draw a diagram of the steps involved in his toothpaste business. <i>Use after Lesson 1.4 (Prob-sol., Comm, Con., Rep.)</i></p>	<p>Harcourt Materials</p> <p>1.A.1 Whole Numbers</p> <p>Reteach, Practice, & Problem-solving 1.4</p> <p>Extra Practice: Student Edition p. 16, Set D</p> <p>Alternative Teaching Strategy TE p 10B, 12</p> <p>Mega Math FA/NLM Level B</p> <p>Think Math! Materials</p> <p>Lessons 2.5, 7.3</p> <p><u>The Toothpaste Millionaire</u> by Jean Merrill</p>

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1st Nine Weeks	<p>STRAND: NUMBER AND OPERATIONS 5-8 Benchmark: A. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</p>	<p>Mastery Level 1. A.1 Compare and order using concrete or illustrated models:</p> <ul style="list-style-type: none"> • decimals (thousandths) • common fractions (halves, thirds, fourths, eighths) 	<p>Writing Activity/Assessment Activity: Describe how great a billion is by comparing one million letters to one billion letters. Share with students the following fact: About 1,200,000,000 letters are sent though the mail everyday. If all of these letters could be placed end to end, they would make a bridge that would expand the Atlantic Ocean. Ask How great a distance would 1 million letters span? Assessment: Students' answers should convey that the distance a million letters would span is one-thousandth the distance a billion letters would span. (Prob-sol., Comm, Con., Rep.)</p> <p>1. A.1 Suggested Harcourt Text Lessons: 29.4, 2.3 Assessment: Selected Chapter Review Items</p> <p>1. A.1 Suggested Harcourt Text Lessons: 15.4, 15.5, 29.4 Assessment: Selected Chapter Review Items</p> <p>Writing in Math Have students write to explain why they can write an equivalent decimal in the hundredths or thousandths for any decimal in the tenths. Assessment: Students' answer should reflect the correct process to write an equivalent decimal in the hundredths or thousandths for any decimal in the tenths.</p> <p>Language Arts Connection Instruct each student to check out a nonfiction book from the school library. Students will then compare and order the books by their number codes. Assessment: Performance Assessment, students will demonstrate skill understanding by correctly ordering books according to their number codes. (Prob-sol., Comm, Con.)</p>	<p>Paper & pencils Computer Lab/Laptop Lab</p> <p>Harcourt Materials 1.A.1 Decimals Reteach, Practice, & Problem-solving 2.2, 2.3 Extra Practice: Student Edition p. 32, Set B & C Alternative Teaching Strategy TE pp. 26B, 28B Mega Math FA/FF Level M: FA/NLM Level O-Q Think Math! Materials Lessons 2.5, 7.2, 7.3</p>

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1st Nine Weeks	STRAND: NUMBER AND OPERATIONS 5-8 Benchmark: A. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	Mastery Level 1. A.2 Demonstrate understanding of the magnitude of the value of numbers from thousandths to millions, including common fractions.	1.A.2 Suggested Harcourt Text Lessons: 2.1, 2.2, 2.4 Assessment: Selected Chapter Review Items Using the given lesson plan from NCTM website, students will follow teacher activity of identifying the concept of a million. They will examine situations to identify mathematical patterns that will enable them to develop the concept of very large numbers. Assessment: Students develop a plan to convert one million days into weeks and one million hours into days. (Prob-sol., R&P, Comm, Con., Rep.) Identify the concept of a million by working with smaller numerical units, such as blocks of 10 or 100, and then expanding the idea by multiplication or repeated addition until a million is reached. Students will analyze situations to identify mathematical patterns to develop the concept of very large numbers. Assessment NCTM Making Your First Million http://illuminations.nctm.org/lessons/3-5/countonmath/CountOnMath-AS-Million.pdf (Prob-sol., Comm, Con., Rep.)	Harcourt Materials 1.A.2 Magnitude Reteach, Practice, & Problem-solving 1.1, 1.2 Extra Practice: Student Edition p. 16, Set A & B Alternative Teaching Strategy TE pp. 2B 4B, 6 Mega Math TNG/TT Level A Think Math! Materials Lessons 6.8, 7.1, 7.3, 7.5, 14.7, 15.2, 15.3, 15.5 http://illuminations.nctm.org/LessonDetail.aspx?ID=L367 Identifying concept of one million http://illuminations.nctm.org/lessons/3-5/countonmath/CountOnMath-AS-Million.pdf Identifying concept of one million

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1st Nine Weeks	<p>STRAND: NUMBER AND OPERATIONS 5-8 Benchmark</p> <p>B. Understand the meaning of operations and how they relate to one another.</p>	<p>Mastery Level</p> <p>1. B.2 Add and subtract decimals.</p> <p>Review/ Mastery</p> <p>1. B.5 Use arithmetic operations and inverse relationships to represent and solve real-world problems.*</p> <p>Review/ Mastery</p> <p>1.B.6 Identify and represent on a number line decimals, fractions, and mixed numbers.</p>	<p>1. B.2 Suggested Harcourt Text Lessons: 3.5, 3.7 Assessment: Selected Chapter Review Items</p> <p>Power Football Apply addition and subtraction of decimals in this online football game. (Prob-sol., Comm, Con., Rep.)</p> <p>1. B.5 Suggested Harcourt Text Lessons: 15.3, 15.4 Assessment: Selected Chapter Review Items</p> <p>1.B.6 Suggested Harcourt Text Lessons: 15.3, 15.4 Assessment: Selected Chapter Review Items</p> <p>Have each student write one fraction, or one decimal on a sheet of paper. Shuffle the papers and distribute them for students to tape onto their shirt fronts. Next, challenge the class to line up, without speaking, in order from least to greatest as quickly as possible. Writing Assessment: Which is greater, $\frac{4}{16}$ or $\frac{1}{2}$? Explain your answer in writing. Then explain your answer using pictures. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Materials</p> <p>1.B.2 Add & Subtract Decimals Reteach, Practice, & Problem-solving 3.2 Extra Practice: Student Edition p. 58, Set A; Alternative Teaching Strategy TE pp. 40B, 12, 28B Mega Math FA/NLM Level R Think Math! Materials Lessons 1.2, 6.8, 6.9, 6.10, 7.8, 7.9, 7.10, 13.3, 13.4, 13.7</p> <p>http://www.illuminations.nctm.org/WebResourceReview.aspx?ID=98 Addition and Subtraction of decimals</p> <p>Harcourt Materials</p> <p>1.B.6 Number Line Reteach, Practice, & Problem-solving 1.4 & 2.3 Extra Practice: Student Edition pp. 16, Set D & pp. 32, Set C; Alternative Teaching Strategy TE pp. 10B, 12, 28B Mega Math FA/NLM Level B; FA/NLM Levels O-Q Think Math! Materials Lessons 4.5, 4.6, 4.8</p>

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1st Nine Weeks	5-8 Benchmark C. Compute fluently and make reasonable estimates.	<p>Review/ Mastery 1. C.2 Add, subtract, multiply, and divide whole numbers.</p> <p>Review/ Mastery 1. B.5 Use arithmetic operations & inverse relationships to represent & solve real-world problems. 1. C.5 Relate the basic arithmetic operations to one another (e.g., multiplication and division are inverse operations).</p> <p>Review/ Mastery 1. C.1. Add and subtract decimals</p>	<p>1. C.2 Suggested Harcourt Text Lessons: 3.4, 3.6, 3.7, 4.5, 7.2, 7.3, 7.4, 11.4 Assessment: Selected Chapter Review Items</p> <p>1. B.5 Suggested Harcourt Text Lessons: 9.2, 10.3, 10.5, 11.1, 11.3 Assessment: Selected Chapter Review Items</p> <p>Distribute various takeout menus and ask students to total a dinner bill for themselves. Then ask them to calculate a bill for their whole family, then a group of families. Then have students divide each family's bill. Assessment: Students will demonstrate correct use of arithmetic operations while also using inverse operations to check their calculations of various bills. (Prob-sol., R&P, Comm, Con., Rep.) Challenge students to solve problems. For example: I'm a 3-digit whole number. When I am divided by 5, the quotient is 180 r 4. What number am I? (Prob-sol., Comm, Rep.)</p> <p>1.C.1. Suggested Harcourt Text Lessons: 3.5, 3.7 Assessment: Selected Chapter Review Items</p> <p>Students will use decimal models to add. Assessment: Website gives immediate feedback to student for correct and incorrect problems. Also, worksheet is provided for student work if desired. (Prob-sol., Comm, Con., Rep.)</p>	<p>Harcourt Materials 1.C.2 & 1.B.5 Add, Subtract, Multiply, Divide Reteach, Practice, & Problem-solving 3.5, 7.3 Extra Practice: Student Edition p. 58, Set C Alternative Teaching Strategy TE pp. 48B, 50;152B, 212B Mega Math FA/NLM Level L, TNG/BB Level 1; TNG/TT LEVEL F Think Math! Materials Lessons 6.8, 6.9, 6.10, 7.8, 7.9, 7.10</p> <p>Resources: Take out menus, paper, pencil</p> <p>Harcourt Materials 1.C.1 Add and Subtract Decimals Reteach, Practice, & Problem-solving 3.5 Extra Practice: Student Edition p. 58, Set C Alternative Teaching Strategy TE pp. 48B, 50 Mega Math TNG/TT LEVEL L, TNG/BB Level 1 Think Math! Materials Lessons 1.2, 1.7, 2.2, 2.3, 2.8, 2.9, 2.10, 2.11, 2.12, 5.1, 5.2, 5.4, 5.5, 7.12</p> <p>http://www.harcourtschool.com/activity/elab2004/gr5/2.html</p>

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1st Nine Weeks	<p>5-8 Benchmark C. Compute fluently and make reasonable estimates.</p> <p>Strand: Algebra Standard: Students will understand algebraic concepts and applications. 5-8 Benchmark: Represent and analyze mathematical situations and structures using algebraic symbols.</p>	<p>Review/ Mastery 1. C.3 Use estimation strategies to verify the reasonableness of calculated results.</p> <p>Review/ Mastery 2. B.1 Compute the value of expression for specific numerical values of the variable.*</p> <p>Review/ Mastery 2. B.2. Use a letter to represent an unknown number.</p>	<p>2. B.1 Suggested Harcourt Text Lessons: 7.1, 7.5, 9.1, 26.1 Assessment: Selected Chapter Review Items</p> <p>Have students write about a situation in which it is important to know whether the estimate is greater than or less than the exact answer. Writing Assessment: Check students' written work for reasonable answers. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>2. B.1 Suggested Harcourt Text Lessons: NM-3, 4.1, 12.1 Assessment: Selected Chapter Review Items</p> <p>2. B.2. Suggested Harcourt Text Lessons: 4.2, 4.6, 5.4, 5.5, 12.6 Assessment: Selected Chapter Review Items The Variable Machine Students' develop algebraic thinking by creating variable machines to discover the value of words. Students will correctly evaluate expressions similar to $(1 + z) \times 2 + 12 \div 3 - z$ when $z = 4$. Assessment: Correct answers will be given and student will write explaining the process used to arrive at the correct answer. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Materials 1.C.3 Estimation Reteach, Practice, & Problem-solving 3.5, 7.5 Extra Practice: Student Edition p. 58, Set C Alternative Teaching Strategy TE pp. 48B, 50, 156B Mega Math TNG/TT LEVEL L, TNG/BB Level 1 Think Math! Materials Lessons 2.4, 2.6, 2.7, 2.12, 5.1, 7.7, 7.8, 7.9, 7.10, 8.3, 8.4, 8.5, 10.1</p> <p>Paper & pencils Computer Lab/Laptop Lab Resources: paper, pencil</p> <p>Harcourt Materials 2.B.1 & 2.B.2 Variables Reteach, Practice, & Problem-solving 4.1 Extra Practice: Student Edition p. 82, Set A Alternative Teaching Strategy TE pp. 64B, 66 Mega Math ISE/AA Level G; ISE/AA Level G Think Math! Materials Lessons 1.3, 1.4, 1.5, 1.6, 2.2, 5.4, 13.1, 13.2, 13.3, 13.4, 13.5, 13.6, 13.7</p> <p>http://illuminations.nctm.org/LessonDetail.aspx?id=L291 Create variable machines</p> <p>http://www.mathleague.com/help/algebra/algebra.htm Evaluate expressions</p>

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1st Nine Weeks	<p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities. 5-8 Benchmark: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</p>	<p>Review/ Mastery 5. A.1 Construct, read, analyze, and interpret tables, charts, graphs, and data plots. Review/Introduce/ Master 5.A.2 Construct, interpret, and analyze data from graphical representations and draw simple conclusions using bar graphs, line graphs, circle graphs, frequency tables, and Venn diagrams.* Review/ Mastery 5.A.3 Display, analyze, compare, and interpret different data sets, including data sets of different sizes.* Review/ Mastery 5. A.4 Organize and display single-variable data in appropriate graphs and representations. Review/ Mastery 5.A.5 Organize, read, and display numerical and non-numerical data in a clear, organized, and accurate manner including correct titles, labels, and intervals or categories including: pictorial displays Review/ Mastery 5.A.6 Formulate questions and identify data to be collected to correctly answer a question</p>	<p>5. A.1 Suggested Harcourt Text Lessons: 6.1 Assessment: Selected Chapter Review Items</p> <p>5.A.2 Suggested Harcourt Text Lessons: 5.1, 6.3, 6.4, 6.5 Assessment: Selected Chapter Review Items</p> <p>5.A.3 Suggested Harcourt Text Lessons: p. 92-93, 5.1, 5.3, 5.4, 6.1, 6.2, 6.3, 6.4, 6.5, p. 138, p. 139, p. 143, p. 144-145, p. 336, 29.6, p. 676 Assessment: Selected Chapter Review Items</p> <p>5.A.4 Suggested Harcourt Text Lessons: 6.1, p. 138 Assessment: Selected Chapter Review Items</p> <p>5.A.5 Suggested Harcourt Text Lessons: 1.5, 5.2-5.4, 6.1, 6.3, 6.4, 6.5, 6.6, 13.2, 14.5, p. 138, p. 139, p. 143, 29.6 Assessment: Selected Chapter Review Items</p> <p>5.A.6 Suggested Harcourt Text Lessons: 5.1, 5.4 Assessment: Selected Chapter Review Items</p>	<p>Harcourt Materials 5. A.1 Charts, graphs, & data plots Reteach, Practice, Problem-Solving: 5.5 Extra Practice: SE p. 110, Set D Alternative Teaching Strategy: TE pp. 106B, 108 Think Math! Materials Lessons 6.8, 6.9, 6.10, 6.11, 14.6, 15.1, 15.3</p> <p>Harcourt Materials 5.A.2 Construct, interpret, & analyze data Reteach, Practice, Problem-Solving: 5.1, 5.5, 6.3 Extra Practice: SE p. 110, Sets A&D, 134, Set C Alternative Teaching Strategy: TE pp. 96B, 98, 106B, 108, 122B, 124 Think Math! Materials Lessons 6.8, 6.9, 8.10, 13.6, 14.4, 15.1, 15.2, 15.4, 15.5, 15.6</p> <p>Harcourt Materials 5.A.3 Reteach, Practice, Problem-Solving: 5.2 Extra Practice: SE p. 110, Sets B Alternative Teaching Strategy: TE pp. 100B</p> <p>Harcourt Materials 5. A.4 Single-variable data graphs Reteach, Practice, Problem-Solving: 2.4 Alternative Teaching Strategy: TE p. 30B</p> <p>Harcourt Materials 5. A.5 Organize, read, & create graphs Reteach, Practice, Problem-Solving: 5.2 Extra Practice: SE p. 110, Set B Alternative Teaching Strategy: TE p. 100B</p> <p>Harcourt Materials 5. A.6 Formulate questions Reteach, Practice, Problem-Solving: 5.1, 5.5 Extra Practice: SE p. 110, Set A, Set D Alternative Teaching Strategy: TE p. 96B, 98, 106B, 108 Mega Math: TNG/AG Level F</p>

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1st Nine Weeks	<p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities. 5-8 Benchmark: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.</p>	<p>Review/ Mastery 5. A.1 Construct, read, analyze, and interpret tables, charts, graphs, and data plots. Review/Introduce/ Master 5. A.2 Construct, interpret, and analyze data from graphical representations and draw simple conclusions using bar graphs, line graphs, circle graphs, frequency tables, and Venn diagrams.* Review/ Mastery 5. A.3 Display, analyze, compare, and interpret different data sets, including data sets of different sizes.* Review/ Mastery 5. A.4 Organize and display single-variable data in appropriate graphs and representations. Review/ Mastery 5. A.5 Organize, read, and display numerical and non-numerical data in a clear, organized, and accurate manner including correct titles, labels, and intervals or categories including: pictorial displays Review/ Mastery 5. A.6 Formulate questions and identify data to be collected to correctly answer a question</p>	<p>Graphing Survey Have students survey their classmates, asking them questions that elicit multiple answers. For example, what is your favorite food, book, musical group? Have them make graphs showing the responses depicted in fractions and percentages. Assessment: Students will write explaining the process they developed to gather information, choose an appropriate graph, and record results. (5.A.1, 5.A.2, 5.A.3, 5.A.4, 5.A.5, 5.A.6) Arithmetic progressions/sequences and the idea of a variable. Encourage students to see the use in solving for an unknown variable in real life. Use problems, such as $n \times \\$1.50 = \\6.00 to allow students to work together and determine the answer. Provide paper coin manipulatives so that students may work out the problems. Using a newspaper, have each student look at the cost of a stock that begins with the same letter as his/her name. Ask the students to find the increase or decrease for that stock. Have students generate a table that shows how the value of the stock would change in one week if it gained or lost the same amount every day. Have students record the projected data on a bar graph. Ask students how long it would be before the stock was worth double or half its original value. (5.A.1, 5.A.2, 5.A.3, 5.A.4, 5.A.5, 5.A.6) Assessment: Students will correctly solve for the variable and record data on a bar graph. (Prob-sol., Comm, Con., Rep.) Reading Focus: Share with the students activities that include problems with variables, such as those found in <i>The XYZ Primary Algebra: Introducing the Great Unknown</i> by Rod Cameron. (Prob-sol.) Writing Focus: Have students to write a summary of their findings on their stock market graphs. (Prob-sol.,Comm, Con., Rep.)</p>	<p>Materials: pencil, paper, ruler</p> <p>Materials: newspaper with stock market report, ruler, pencil, paper, coin manipulatives.</p> <p>Matierals: paper, pencil, ruler</p>

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1st Nine Weeks	<p>Strand: Data Analysis and Probability</p> <p>5-8 Benchmark: Select and use appropriate statistical methods to analyze data.</p>	<p>5. B. 1 Organize and display single-variable data in appropriate graphs and representations and determine which types of graphs are appropriate for various data sets.*</p> <p>5. B.2 Use fractions and percentages to compare data sets of different sizes.*</p> <p>5. B.3 Correctly rank the values of a numerical data set containing simple fractions and decimals, identify maximum and minimum data values, and calculate the range for a set of data.*</p>	<p>5. B. 1 Suggested Harcourt Text Lessons: 6.1, 6.6, p. 138 Assessment: Selected Chapter Review Items</p> <p>5. B.2 Suggested Harcourt Text Lessons: 30.2, 30.3 Assessment: Selected Chapter Review Items</p> <p>5. B.3 Suggested Harcourt Text Lessons: 5.2 (mean), 5.3 (median & mode, NM-1 (range), NM-4 (rank values of fractions)) Assessment: Selected Chapter Review Items</p>	<p>Harcourt Materials</p> <p>5. B.1 Single Variable data & graphs Reteach, Practice, Problem-Solving: 6.6 Extra Practice: SE p. 134 Set D Alternative Teaching Strategy: TE pp. 130B, 132</p> <p>Harcourt Materials</p> <p>5. B.3 Numerical Data Sets Reteach, Practice, Problem-Solving: 5.2 Extra Practice: SE p. 110 Set B Alternative Teaching Strategy: TE pp. 100B</p> <p>Think Math! Materials Lessons 6.8, 6.10</p>

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<p>2nd Nine Weeks</p> <p><small>* Denotes items that are not tested on the Harcourt Quarterly Assessment.</small></p> <p><i>Process Standards:</i> Prob.-Sol/ Problem Solve, R&P/ Reason & Proof, Comm./ Communication, Con./ Connection s Rep./Representation</p>	<p>1. A.6 Identify prime and composite numbers to 50.</p> <p>1. B.1 Explain and perform whole number division and express remainders as a whole number or a fractional part as appropriate to the context of real-life problems.</p> <p>1. B.3 Add and subtract fractions and mixed numbers without regrouping and express answers in the simplest form.</p> <p>1. B.4 Find the factors and multiples of whole numbers.</p> <p>1. B.7 Demonstrate proficiency with division, including one-and two digit divisors.</p> <p>1. B.8 Solve simple problems involving the addition and subtraction of fractions and mixed numbers.</p> <p>1. B.9 Represent and use fractions and decimals in equivalent forms.</p> <p>1. C.4 Explain how the estimation strategy impacts the result.</p> <p>1. C.6 Simplify numerical expressions using order of operations.</p> <p>1. C.7 Recognize and explain the differences between exact and approximate values.</p> <p>2. A.1 Identify and graph ordered pairs in the first quadrant of the coordinate plane.</p> <p>2. A.2 Describe, represent and analyze patterns and relationships.</p> <p>2. A.3 Identify, describe, and continue patterns presented in a variety of formats (e.g. numeric, visual, oral, written, kinesthetic, pictorial).</p> <p>2. A.4 Generate a pattern using a written description.</p> <p>2. B.3 Understand the differences between the symbols for “less than,” “less than or equal to,” “greater than,” and “greater than or equal to.”</p> <p>2. C.1 Use mathematical models to represent and explain mathematical concepts and procedures.</p> <p>2. C.2 Understand and use mathematical models such as: the number line to model the relationship between rational numbers and rational number operations; pictorial representation of addition and subtraction of rational numbers with regrouping; manipulatives or pictures to model computational procedures; graphs, tables, and charts to describe data, and diagrams or pictures to model problem situations.*</p> <p>2. C.3 Demonstrate how a situation can be presented in more than one way.*</p> <p>2. D.1 Recognize and create patterns of change from everyday life using numerical or pictorial representations.*</p> <p>2. D.2 Generalize patterns of change and recognize the same general patterns presented in different representations.*</p> <p>3. A.1 Identify, describe, and classify two-dimensional shapes and three-dimensional figures by their properties.</p> <p>3. A.2 Recognize and describe properties of regular polygons having up to ten sides.*</p> <p>3. B.1 Recognize perpendicular and parallel lines.*</p> <p>3. C.1 Identify line of symmetry in simple geometric figures.</p>			
Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
2nd Nine Weeks	<p>Strand: Number & Operations</p> <p>Standard: Students will understand numerical concepts and mathematical operations.</p> <p>5-8 Benchmark: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</p>	<p style="color: red;">Review/ Mastery</p> <p>1. A.6 Identify prime and composite numbers to 50.</p>	<p>1.A.6 Suggested Harcourt Text Lessons: 14.3 Assessment: Selected Chapter Review Items</p> <p>Sieve of Eratosthenes: identifying prime numbers. Interactive website to demonstrate the Sieve of Eratosthenes method for identifying prime numbers. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Materials 1.A.6 Prime and Composite Numbers Reteach, Practice, Problem-Solving: 14.3 Alternative Teaching Strategy: TE p. 300B</p> <p>Think Math! Materials Lessons 4.5, 4.6, 4.8 http://www.math.utah.edu/~pa/Eratosthenes.html</p>

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2nd Nine Weeks	<p>Strand: Number & Operations Standard: Students will understand numerical concepts and mathematical operations. 5-8 Benchmark: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</p>	<p>Review/Mastery 1.B.1 Explain and perform whole number division and express remainders as a whole number or a fractional part as appropriate to the context of real-life problems.</p> <p>Introduce/Mastery 1. B.3 Add and subtract fractions and mixed numbers without regrouping and express answers in the simplest form.</p>	<p>1.B.1 Suggested Harcourt Text Lessons: 9.5, 10.6 Assessment: Selected Chapter Review Items</p> <p>Harcourt Performance Assessment At the Fair p. 28 Purpose: Assess student understanding of using estimation and division of whole numbers to predict and plan. Assessment: Students will solve a problem about planning food and seating for a fair. They must correctly estimate, predict, and calculate in their planning. Rubric is provided. (Prob-sol., R&P, Comm, Con., Rep.) Create a flow chart to show whole number division with remainder expressed at fractional parts. (Prob-sol., Rep.)</p> <p>1.B.3 Suggested Harcourt Text Lessons: 16.1, 16.2, 16.4, 16.5, 16.6, 17.1, 17.2 Assessment: Selected Chapter Review Items</p> <p>Harcourt Performance Assessment Pizza Time p. 46 Purpose: Assess student understanding of modeling addition of fractions and mixed numbers. Assessment: Students solve a problem about sharing a pizza. Shares are not equal, but must fit conditions of the problem. Assess student understanding of addition of fractions and mixed numbers. (Prob-sol., Comm, Rep.)</p>	<p>Harcourt Materials 1.B.1 Division with Remainders Reteach, Practice, Problem-Solving: 9.5 Alternative Teaching Strategy: TE p. 200B Performance Assessment p. 28 Think Math! Materials Lessons 3.8, 8.7, 8.8, 8.9, 8.10</p> <p>Harcourt Performance Assessment Workbook</p> <p>Harcourt Materials 1.B.3 Add & Subtract Fractions Reteach, Practice, Problem-Solving: 15.2, 16.1 Extra Practice: SE pp. 332, Set B; 362 Set A Alternative Teaching Strategy: TE p. 316B, 318, 346B Mega Math: FA/FF Level E; FA/FF Levels G-H Harcourt Performance Assessment Workbook Think Math! Materials Lessons 4.6, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 13.8</p>

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Calendar	Strand/Standard/ Benchmark	Performance Standard/	Suggested Student Activities/Assessments	Resources/Materials
2nd Nine Weeks		<p>Review/ Mastery 1. B.4 Find the factors and multiples of whole numbers.</p> <p>Mastery 1. B.7 Demonstrate proficiency with division, including one-and two digit divisors.</p>	<p>1.B.4 Suggested Harcourt Text Lessons: 13.2, 13.3, 13.4, 14.4 Assessment: Selected Chapter Review Items</p> <p>Introduce the concepts of factors and multiples of whole numbers. Factoring is like taking a number apart. It means to express a number as the product of its factors. In the problem $3 \times 4 = 12$, 12, 3 and 4 are factors and 12 is the product. A prime number has only two factors, one and itself, so it cannot be divided evenly by any other numbers. The number 12 is a <u>multiple</u> of 3, because it can be divided evenly by 3. $3 \times 4 = 12$ 3 and 4 are both factors of 12 12 is a multiple of both 3 and 4.. Give students a list of numbers. Have them identify the prime numbers. Have them identify the factors of each number.</p> <p>Reading Focus: Read <i>Anno's Mysterious Multiplying Jar</i> by Anno Masaichiro. Discuss the concept of factorials as they are presented in the text.</p> <p>Writing Focus: Have students explain in writing what a factor is, what a prime number is and what a multiple is. Have them give examples of each. (Prob-sol., Comm, Rep.)</p> <p>Suggested Harcourt Text Lessons: Assessment: Selected Chapter Review Items</p> <p>Suggested Harcourt Text Lessons: 1.2, 9.3, 9.4, 10.3, 10.4, 10.5, 11.2, 11.3, 13.1 Assessment: Selected Chapter Review Items</p> <p>Students create & solve division problems and immediate feedback is provided. Division Baseball: Students solve equations to win the baseball game. 2 players can compete at the same time.</p>	<p>Harcourt Materials 1.B.4 Factors and multiples Reteach, Practice, Problem-Solving: 13.2, 13.3, 13.4 Extra Practice: SE p. 286, Set B Alternative Teaching Strategy: TE pp. 278B, 280, 282B, 284B Think Math! Materials Lessons 3.3, 3.5, 3.6, 3.7</p> <p>Materials: paper, pencil, list of numbers, 1-50</p> <p><i>Anno's Mysterious Multiplying Jar</i> by Anno Masaichiro</p> <p>Harcourt Materials 1.B.7 Division Reteach, Practice, Problem-Solving: 15.3 Extra Practice: SE p. 332, Set A & C Alternative Teaching Strategy: TE pp. 320B, 322B, 324 Think Math! Materials Lessons 3.6, 3.7, 7.3, 7.11, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9</p> <p>http://www.aaaknow.com/grade5.htm#topic52 http://www.funbrain.com/</p>

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2nd Nine Weeks		<p>Review/Mastery 1. B.8 Solve simple problems involving the addition and subtraction of fractions and mixed numbers.</p> <p>Introduce/ Mastery 1. B.9 Represent and use fractions and decimals in equivalent forms.</p>	<p>1.B.8 Suggested Harcourt Text Lessons: 17.3, 17.4, 17.5 Assessment: Selected Chapter Review Items</p> <p>Students watch a short movie with Tim and Moby, read a cartoon, do an experiment with Bob the Ex-Lab Rat and then have the opportunity to take a review test, graded test, or printed test about addition and subtraction of fractions and mixed numbers. (Prob-sol., Comm, Con., Rep.)</p> <p>1.B.9 Suggested Harcourt Text Lessons: 11.5, 15.1, 15.2, 15.6 Assessment: Selected Chapter Review Items</p> <p>Fractions, Decimals, Percents Instructional Strategies: Discuss with students the relationship between fraction, decimals, and percents. Tell them that all represent a part of a whole .</p> <ul style="list-style-type: none"> • A fraction is based on the number into which the whole is divided (the denominator). The numerator (the top) is the PART, the denominator (the bottom) is the WHOLE. • A decimal is based on the number in terms of tenths, hundredths, thousandths, etc. <p>Share with students the following steps to convert from one to the other.</p>	<p>Harcourt Materials 1.B.8 Adding & Subtracting Fractions Reteach, Practice, Problem-Solving: 15.3 Extra Practice: SE p. 332, Set C Alternative Teaching Strategy: TE pp. 320B, Mega Math FA/FF Level H Think Math! Materials Lessons 11.2, 11.3, 11.6</p> <p>http://www.brainpop.com/</p> <p>Harcourt Materials 1.B.9 Equivalent Decimals & Fractions Reteach, Practice, Problem-Solving: 15.1, 15.3, 15.6 Extra Practice: SE p. 332, Set A, Set C, Set E Alternative Teaching Strategy: TE pp. 314B, 320B, 28B, 330 Mega Math: FA/FF Level D; FA/NLM Level H; FA/NLM Level N, FA/FF Level N Think Math! Materials Lessons 3.3, 4.1, 4.2, 4.3, 4.4, 4.7, 4.9, 7.4, 7.5, 7.6, 14.5</p>

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2nd Nine Weeks		<p>Review/Mastery 2. A.2 Describe, represent and analyze patterns and relationships.</p> <p>Review/Mastery 2. A.3 Identify, describe, and continue patterns presented in a variety of formats (e.g. numeric, visual, oral, written, kinesthetic, pictorial).</p> <p>Review/Mastery 2. A.4 Generate a pattern using a written description.</p>	<p>vertical axis. (Show students.) Tell students that ordered pairs are always written inside parentheses. The points located on the same grid are called coordinate points. Give students several ordered pairs to locate on the grid. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Reading Focus: Use books to introduce coordinate graphing (e.g., <i>Cartesian Cartoons</i> by Mr. E) Plot coordinates to connect points to form a picture. Play “Battleship” (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>2.A.2 Suggested Harcourt Text Lessons: 12.3, 12.4 Assessment: Selected Chapter Review Items</p> <p>2.A.3 Suggested Harcourt Text Lessons: 10.1, 11.1, 20.7 Assessment: Selected Chapter Review Items</p> <p>2.A.4 Suggested Harcourt Text Lessons: 8.2, 10.1, 11.1, 12.3, 12.4, 20.7 Assessment: Selected Chapter Review Items Students solve for an unknown variable in real life situation. Use problems, such as $n \times \\$1.50 = \\6.00 to allow students to work together and determine the answer. Provide paper coin manipulatives so that students may work out the problems. Using a newspaper, have each student look at the cost of a stock. Ask the students to find the increase or decrease for that stock. Have students generate a table that shows how the value of the stock would change in one week if it gained or lost the same amount every day. Have students record the projected data on a bar graph. Ask students how long it would be before the stock was worth double or half its original value. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Materials 2.A.2, 2.A.3, & 2.A.4 Patterns and Relationships Reteach, Practice, Problem-Solving: 12.3 Extra Practice: SE p. 262, Set C Alternative Teaching Strategy: TE p. 252B Mega Math TNG/TT Level K Think Math! Materials Lessons 1.3, 5.4, 6.8, 7.3, 7.11, 8.1, 8.2, 9.9, 15.2, 15.3, 15.4, 15.5, 15.6</p> <p>Materials: newspaper with stock market report, ruler, pencil, paper, coin manipulatives.</p>

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2nd Nine Weeks		<p style="color: red; margin: 0;">Review/Mastery</p> <p style="margin: 0;">2. B.3 Understand the differences between the symbols for “less than,” less than or equal to,” “greater than,” and “greater than or equal to.”</p>	<p>Reading Focus: Share with the students activities that include problems with variables, such as those found in <i>The XYZ Primary Algebra: Introducing the Great Unknown</i> by Rod Cameron. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Assessment & Writing Focus: Students write a summary of their findings. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>2.B.3 Suggested Harcourt Text Lessons: 4.4 Assessment: Selected Chapter Review Items</p> <p>This resource pack is designed to provide a range of activities to support the teaching of numbers that are greater than, less than and equal to.</p> <p>It should enable pupils to:</p> <ul style="list-style-type: none"> • understand and use the terms greater than, less than and equal to • understand the corresponding symbols $>$, $<$ and $=$ • be able to use these symbols and terms in an appropriate context <p>Included are selections of supporting worksheets that can be adapted to suit the age range of the pupils being taught. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p><i>The XYZ Primary Algebra: Introducing the Great Unknown</i> by Rod Cameron.</p> <p>Harcourt Materials 2.B.3 Greater than, less than, equal to Reteach, Practice, Problem-Solving: 15.4 Extra Practice: SE p. 332, Set D Alternative Teaching Strategy: TE pp. 322B, 324 Mega Math FA/NLM Levels I-J</p> <p>http://www.ngfl-cymru.org.uk/vtc/greater_less_than/eng/Introduction/default.htm</p>

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2nd Nine Weeks		<p>Review/Mastery 2. C.1 Use mathematical models to represent and explain mathematical concepts and procedures.</p> <p>Review/Mastery 2.C.2 Understand and use mathematical models such as:</p> <ul style="list-style-type: none"> • the number line to model the relationship between rational numbers and rational number operations; • pictorial representation of addition and subtraction of rational numbers • with regrouping; manipulatives or pictures to model computational procedures; graphs, tables, and charts to describe data, and diagrams or pictures to model problem situations.* 	<p>2.C.1 Suggested Harcourt Text Lessons: 12.7 Assessment: Selected Chapter Review Items</p> <p>2.C.2 Suggested Harcourt Text Lessons: 8.1, 8.3, 14.5, 15.5, 22.4 Assessment: Selected Chapter Review Items</p> <p>Students generate products using a number line model. Students are encouraged to predict the products and to answer puzzles involving multiplication. Assessment: Students should be able to:</p> <ul style="list-style-type: none"> ▪ Model multiplication on a number line; ▪ Use the number line model to find products; and, ▪ Identify known multiplication facts on a chart. (Prob-sol., R&P, Comm, Con., Rep.) <p>Harcourt Alternative Teaching Strategy, p. 68B Students will draw pictures to model addition and subtraction of rational problems. Assessment: Pictures will reflect correct addition and subtraction of rational problems. Harcourt Writing in Mathematics: Students will translate a numerical report from the Internet, newspaper or magazine into an equation. Students should include a description of the report and at least one equation.</p> <p>Harcourt Alternative Teaching Strategy, p. 80B Students will use a table to organize the information in a word problem. The table can be used to display the facts, the operation, and the equation. Harcourt Writing in Mathematics, p. 80B Students will write word problems that require writing and solving an equation. Assessment: Students should draw an illustration along with the equation.</p>	<p>Number line model http://illuminations.nctm.org/LessonDetail.aspx?ID=L588</p>

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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
2nd Nine Weeks		<p>Review/Mastery 2. C.3 Demonstrate how a situation can be presented in more than one way.*</p> <p>Review/Mastery 2. D.1 Recognize and create patterns of change from everyday life using numerical or pictorial representations.*</p> <p>Review/Mastery 2. D.2 Generalize patterns of change and recognize the same general patterns presented in different representations.*</p>	<p>2.C.3 Suggested Harcourt Text Lessons: 12.5, 14.1, 14.2 Assessment: Selected Chapter Review Items</p> <p>Suggested Harcourt Text Lessons: 12.3 Assessment: Selected Chapter Review Items</p> <p>2.D.2 Suggested Harcourt Text Lessons: NM-2 Assessment: Selected Chapter Review Items</p>	

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2nd Nine Weeks		<p>Review/Mastery 3. A.1 Identify, describe, and classify two-dimensional shapes and three-dimensional figures by their properties. Review/Mastery 3. A.2 Recognize and describe properties of regular polygons having up to ten sides.*</p> <p>Review/Mastery 3. B.1 Recognize perpendicular and parallel lines.*</p> <p>Review/Mastery 3. C.1 Identify line of symmetry in simple geometric figures.</p>	<p>3.A.1 Suggested Harcourt Text Lessons: 21.1, 21.2, 21.5 Assessment: Selected Chapter Review Items</p> <p>3.A.2 Suggested Harcourt Text Lessons: 20.3, 23.3, 21.4 Assessment: Selected Chapter Review Items</p> <ul style="list-style-type: none"> • Students identify and construct a 3-D object and a cube to learn the concept of the net of a 3D object • Create a geometric design using predetermined shapes and angles. • Create and draw a t-shirt design using a predetermined number and type of shape or angle. • Create a memory game to match the same type of triangles and angles. • Given a work of art students identify and measure angles and triangles. • Design a work of art using specified angles • Using a bicycle, identify and label the lines, rays, angles, shapes and symmetry found on the bike. (Prob-sol., R&P, Comm, Con., Rep.) <p>3.B.1 Suggested Harcourt Text Lessons: 20.1 Assessment: Selected Chapter Review Items</p> <ul style="list-style-type: none"> • During a walking tour of the building and around the school grounds, find examples of geometry in the real world, including perpendicular and parallel lines. (Prob-sol., R&P, Comm, Con., Rep.) <p>3.C.1 Suggested Harcourt Text Lessons: 20.6, 21.3 Assessment: Selected Chapter Review Items</p> <ul style="list-style-type: none"> • Create symmetrical drawings • Create quilt squares of paper or cloth (Prob-sol., R&P, Comm, Con., Rep.) 	<p>Harcourt Materials 3.A.1 Classify two dimensional shapes and three-dimensional figures Reteach, Practice, Problem-Solving: 29.2, 29.3, 29.4 Extra Practice: SE p. 626, Set A; 548 Set C Alternative Teaching Strategy: TE pp. 616B, 640B Think Math! Materials Lessons 6.3, 6.4, 6.6, 9.2, 9.3, 9.4, 9.7, 9.8</p>

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<p>3rd Nine Weeks</p> <p><small>* Denotes items that are not tested on the Harcourt Quarterly Assessment.</small></p> <p><i>Process Standards:</i></p> <p>Prob.-Sol/ Problem Solve, R&P/ Reason & Proof, Comm./ Communication, Con./ Connection s</p> <p>Rep./Representation</p>	<p>1.A.4 Interpret percents as part of a hundred (i.e., find decimal and percent equivalents for common fractions, explain how they represent the same value, and compute a given percent of a whole number).</p> <p>3. A.1 Identify, describe, and classify two-dimensional shapes and three dimensional figures by their properties.</p> <p>3. A.3 Identify faces, edges, and bases on three-dimensional objects.</p> <p>3. D.1 Understand and compute the perimeter of regular polygons.</p> <p>3. D.2 Identify and explain circumference, radius, and diameter.</p> <p>4. A.1 Understand properties (e.g., length, area, weight, volume) and select the appropriate type of unit for measurement each using both U.S. customary and metric systems.</p> <p>4. A.2 Select and use appropriate units and tools to measure according to the degree of accuracy required in a particular problem-solving situation.</p> <p>4. A.3 Solve problems involving linear measurement, weight, and capacity (e.g., measuring to the nearest sixteenth of an inch or nearest millimeter; using ounces, millimeters, or pounds and kilograms) to the appropriate degree of accuracy.</p> <p>4. A.4 Perform one-step conversions within a system of measurement (e.g., inches to feet, centimeters to meters).</p> <p>4. B.1 Solve measurement problems using appropriate tools involving length, perimeter, weight, capacity, time, and temperature.</p> <p>4. B.2 Select and use strategies to estimate measurements including length, distance, capacity, and time.</p> <p>4. B.3 Apply strategies and use tools for estimating and measuring the perimeter of regular and irregular shapes.</p> <p>5. C.1 Make & justify valid inferences, predictions, & arguments based on statistical analysis.</p> <p>5. C.2 Compare a given prediction with the results of an investigation.*</p> <p>5. C.3 Use counting strategies to determine all the possible outcomes of a particular familiar event.*</p> <p>5. C.4 Find all possible outcome sets involving four or more sets of objects.*</p> <p>5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution.*</p> <p>5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems.*</p> <p>5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.*</p> <p>5. C.8 List all possible outcomes of simple events.*</p> <p>5. D.1 Determine probabilities through experiments and/or simulations and compare the results with mathematical expressions.</p> <p>5. D.2 Make predictions from the results of student-generated experiments of single events.*</p> <p>5. D.3 Identify simple experiments where the probabilities of all outcomes are equal.*</p> <p>5. D.4 Describe and predict the results of a probability experiment.*</p> <p>5. D.5 Use fractions to describe the results of an experiment.*</p> <p>5. D.6 Use probability to generalize from a simple pattern or set of examples and justify why the generalization is reasonable.*</p>
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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
<p>3rd Nine Weeks</p>	<p>STRAND: NUMBER AND OPERATIONS 5-8</p> <p>Benchmark: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.</p>	<p>Introduce/Master</p> <p>1. A.4 Interpret percents as part of a hundred (i.e., find decimal and percent equivalents for common fractions, explain how they represent the same value, and compute a given percent of a whole number).</p>	<p>1.A.4 Suggested Harcourt Text Lessons: 29.1, 29.2, 29.3, 29.4, 29.5, 29.6</p> <p>Assessment: Selected Chapter Review Items</p>	<p>Harcourt Materials</p> <p>1.A.4 Decimal and percent equivalents for common fractions</p> <p>Reteach, Practice, Problem-Solving: 29.2, 29.3, 29.4</p> <p>Extra Practice: SE p. 648, Sets A, B, C</p> <p>Alternative Teaching Strategy: TE pp. 634B, 636B, 638, 640B</p>

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3rd Nine Weeks	STRAND: NUMBER AND OPERATIONS 5-8 Benchmark: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	Introduce/Master 1. A.4 Interpret percents as part of a hundred (i.e., find decimal and percent equivalents for common fractions, explain how they represent the same value, and compute a given percent of a whole number).	1.A.4 Suggested Harcourt Text Lessons: 29.1-29.6 Assessment: Selected Chapter Review Items Students will practice matching equivalent fractions, decimals, and percents in the least number of moves on this online interactive game. Assessment: Website gives immediate feedback to student for correct and incorrect answers. (Prob-sol.) Have students write three newspaper headlines. One headline should include a percent, another should include a fraction, and another should include a decimal. Circle the headline that is written the way it would be found in the newspaper. (Prob-sol., R&P, Comm, Con., Rep.) Writing Assessment: Check students' written work for reasonable answers. Students will use a model to name a percent as part of a hundred on this online interactive game. Assessment: Website gives immediate feedback to student for correct and incorrect problems. Also, a worksheet is provided for student work if desired. (Prob-sol., R&P, Comm, Con., Rep.) Students will compare four "going out of business sales" (with no sales tax) at the mall. They have to decide where they would get the best deal on a pair of jeans. Students will evaluate their choices, rank the jeans and justify why they would purchase from that store. In the answer students should provide proof that they have calculated the correct answer. The price of the jeans at the four stores are as follows: Store 1: \$52.00 w/25% off, Store 2: \$50.00 w/33% off, Store 3: \$57.00 w/ 45% off, and Store 4: \$60.00 with 35% off. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Students should calculate in written form the decimal amount out of money that should be deducted as well as the final price. (Prob-sol., R&P, Comm, Con., Rep.)	Harcourt Materials 1.A.4 Equivalent decimal, percents, & fractions Reteach, Practice, Problem-solving: 29.2 Extra Practice: SE p. 648, Set A Alternative Teaching Strategy: TE. Pp. 636B, 638 Think Math! Materials Lessons 14.5 http://www.harcourtschool.com/activity/con_math/g05c28.html equivalent fractions Paper & pencils Computer Lab/Laptop Lab http://www.harcourtschool.com/activity/elab2004/gr5/17.html Percents as part of a hundred Paper & pencils

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3rd Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Analyze characteristics and properties of two and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.</p>	<p>Introduce/Master 3. A.1 Identify, describe and classify two-dimensional shapes and three-dimensional figures by their properties.</p>	<p>3.A.1 Suggested Harcourt Text Lessons: 21.1, 21.2, 21.5 Assessment: Selected Chapter Review Items</p> <p>This NCTM website offers an interactive geometry investigation; students explore geometric solids and their properties. In addition, a geometry solids and their properties unit including 5 comprehensive lesson plans are provided for the teacher as well as activity sheets. The following objectives are addressed in this unit:</p> <ul style="list-style-type: none"> ▪ analyze characteristics and properties of three-dimensional geometric shapes and develop mathematical arguments about geometric relationships ▪ count the number of faces, edges, and corners (vertices) in various geometric solids ▪ discover Euler's Theorem ▪ construct various geometric solids using an interactive tool ▪ explore and create nets for various geometric solids ▪ use visualization, spatial reasoning, and geometric modeling to solve problems <p>Assessment: Collect the students' activity sheets to assess student understanding. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Materials 3.A.1 Two dimensional shapes and three-dimensional figures Reteach, Practice, & Problem-solving 21.1, 21.2 Extra Practice: SE p. 474, Set A-B, Set B Alternative Teaching Strategy TE pp 456B, 458, 460B Mega Math ISE/PP Levels E-F; ISE/PP Level G Think Math! Materials Lessons 6.3, 6.4, 6.6, 9.2, 9.3, 9.4, 9.7, 9.8 http://illuminations.nctm.org/LessonDetail.aspx?id=U122 geometry solids and their properties</p>

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3rd Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Use visualization, spatial reasoning, and geometric modeling to solve problems.</p> <p>Strand: Measurement Standard: Students will understand measurement systems and applications 5-8 Benchmark: Understand measurable attributes of objects and the units, systems, and processes of measurement 5-8 Benchmark: Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p>Introduce/Master 3. A.1 Identify, describe and classify two-dimensional shapes and three-dimensional figures by their properties.</p> <p>Master 3. D.1 Understand and compute the perimeter of regular polygons.</p> <p>Review/Master 4. A.1 Understand properties (e.g., length, area, weight, volume) and select the appropriate type of unit for measurement each using both U.S. customary and metric systems. Review/Master 4.A.2 Select and use appropriate units and tools to measure according to the degree of accuracy required in a particular problem solving situation</p>	<p>Writing in Mathematics Students respond in written form to the following prompt: Use what you know about solid figures to compare and contrast the following analogy. A cone is to a cylinder as a pyramid is to a prism. Assessment: Collect student's written responses and assess for understanding (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Literature Connections This is a lively book filled with facts about the shapes and structures of walls. Have students trace various figures in the book to explore the classification of solid figures. Assessment: Teacher will circulate throughout classroom and observe students exploring solid figures. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>3.D.1 Suggested Harcourt Text Lessons: 20.1, 21.6 Assessment: Selected Chapter Review Items</p> <p>4. A.1 Suggested Harcourt Text Lessons: 24.1, 24.2, 24.5, 26.2, 26.3, 26.4, 26.5, 26.6, 27.3, 27.4, 27.5 Assessment: Selected Chapter Review Items</p> <p>4. A.2 Suggested Harcourt Text Lessons: 24.4, NM-5 Assessment: Selected Chapter Review Items</p>	<p>Paper and pencil</p> <p><u>What is a Wall, After All?</u> by Judy Allen (Candlewick Press, (1993)</p> <p>Harcourt Materials 3.D.1 Perimeter Reteach, Practice, & Problem-solving 25.2 Extra Practice: Student Edition p. 556, Set A Alternative Teaching Strategy TE p. 550B Think Math! Materials Lessons 9.1, 9.6</p> <p>4.A.1 Measurement Units Reteach, Practice, & Problem-solving 24.1, 24.2 Extra Practice: Student Edition p. 542, Set A Alternative Teaching Strategy TE p. 522B, 524, 526B MM: ISE/LL Levels E-F; ISE/LL Levels I-J Think Math! 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 11.7, 12.4, 12.5, 12.6, 12.8, 15.2, 15.3 4.A.2 Units and Tools in a Problem Solving Situation Reteach, Practice, & Problem-solving 24.1, 24.3 Extra Practice: Student Edition p. 542, Set A, Set B Alternative Teaching Strategy TE p. 504B, 522B, 524 Think Math! 1.5, 1.6, 13.5</p>

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3rd Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Use visualization, spatial reasoning, and geometric modeling to solve problems.</p> <p>Strand: Measurement Standard: Students will understand measurement systems and applications 5-8 Benchmark: Understand measurable attributes of objects and the units, systems, and processes of measurement 5-8 Benchmark: Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p>Mastery 4. A.3 Solve problems involving linear measurement, weight, and capacity (e.g., measuring to the nearest sixteenth of an inch or nearest millimeter; using ounces, millimeters, or pounds and kilograms) to the appropriate degree of accuracy.</p> <p>Mastery 4. A.4 Perform one-step conversions within a system of measurement (e.g., inches to feet, centimeters to meters)</p> <p>Mastery 4. B.1 Solve measurement problems using appropriate tools involving length, perimeter, weight, capacity, time, and temperature.</p> <p>Introduce 4. B.2 Select and use strategies to estimate measurements including length, perimeter, weight, capacity, time, and temperature.</p> <p>Introduce 4.B.3 Apply strategies and use tools for estimating and measuring the perimeter of regular and irregular shapes</p>	<p>4 .A.3 Suggested Harcourt Text Lessons: 24.4 Assessment: Selected Chapter Review Items</p> <p>4. A.4 Suggested Harcourt Text Lessons: 24.3 Assessment: Selected Chapter Review Items</p> <p>4.B.1 Suggested Harcourt Text Lessons: 24.6 Assessment: Selected Chapter Review Items</p> <p>4.B.2 Suggested Harcourt Text Lessons: 24.7 Assessment: Selected Chapter Review Items</p> <p>4.B.3 Suggested Harcourt Text Lessons: 25.1, 25.2, 25.3 Assessment: Selected Chapter Review Items</p> <p>Students learn major concepts such as using basic linear measurement, understanding and creating scale while designing their clubhouses. Students also identify, compare, and analyze attributes of two-and three-dimensional shapes and develop geometry vocabulary in this comprehensive unit available through the NCTM, Illuminations website.</p>	<p>4.A.3 Reteach, Practice, & Problem-solving 24.1 Extra Practice: Student Edition p. 542, Set A Alternative Teaching Strategy TE p. 522B, 524 MM: ISE/LL Levels E-F Think Math! 10.1, 15.2, 15.3</p> <p>4.A.4 Reteach, Practice, & Problem-solving 24.1, 24.3 Extra Practice: Student Edition p. 542, Set A, Set B Alternative Teaching Strategy TE p. 504B, 522B, 542 ISE//LL Levels E-F Think Math! 10.1, 15.2, 15.3</p> <p>4.B.1 Reteach, Practice, & Problem-solving 24.6 Extra Practice: Student Edition p. 542, Set E Alternative Teaching Strategy TE p. 536B, 538 MM: TNG//TT Levels D, E, P Think Math! 15.4, 15.6</p> <p>4.B.2 Reteach, Practice, & Problem-solving 24.7 Alternative Teaching Strategy TE p. 540B</p> <p>4.B.3 Estimating and Measuring Perimeter Reteach, Practice, & Problem-solving 25.2 Extra Practice: Student Edition p. 556, Set A Alternative Teaching Strategy TE p. 550B Think Math! 2.8, 2.9, 2.10, 10.1, 10.2, 10.4, 10.5, 10.6 http://illuminations.nctm.org/LessonDetail.aspx?ID=U172 measurement, scale, attributes of two-and three-dimensional shapes, & vocabulary</p>

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3rd Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Use visualization, spatial reasoning, and geometric modeling to solve problems.</p> <p>Strand: Measurement Standard: Students will understand measurement systems and applications 5-8 Benchmark: Understand measurable attributes of objects and the units, systems, and processes of measurement 5-8 Benchmark: Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p>Mastery 4. A.3 Solve problems involving linear measurement, weight, and capacity (e.g., measuring to the nearest sixteenth of an inch or nearest millimeter; using ounces, millimeters, or pounds and kilograms) to the appropriate degree of accuracy.</p> <p>Mastery 4. A.4 Perform one-step conversions within a system of measurement (e.g., inches to feet, centimeters to meters)</p> <p>Mastery 4. B.1 Solve measurement problems using appropriate tools involving length, perimeter, weight, capacity, time, and temperature.</p> <p>Introduce 4. B.2 Select and use strategies to estimate measurements including length, perimeter, weight, capacity, time, and temperature.</p> <p>Introduce 4. B.3 Apply strategies and use tools for estimating and measuring the perimeter of regular and irregular shapes</p>	<p>Assessment: Using rubric which is provided in lesson plans students will be scored on the following tasks: calculations on budgeting worksheet, accuracy of measurements on blueprint, three—dimensional model, problem-solving tasks, and design log. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Harcourt Performance Assessment <i>Woodworking</i> p. PA64 - 66 Purpose: To assess student understanding of areas of triangles and rectangles Assessment: Students design the top of a jewelry box using triangles and quadrilaterals on grid paper. They must measure dimensions of figures and find the areas of figures. <i>Storage Cabinet</i> p. PA64, 65, and 67 Purpose: To assess student understanding of perimeter, area, and volume Assessment: Students plan the dimensions of a storage cabinet. They must calculate perimeter, area, and volume to decide how much material is needed for paint and trim</p> <p>In this lesson provided by NCTM, Illuminations online, students will use historical nonstandard units (digits, hand, cubit, yard, foot, pace, and fathom) to estimate the lengths of common objects and then measure using modern standard units. They will discover the usefulness of standardized measurement units and tools. Activity sheet in which student's record gathered measurements is provided online.</p> <p>Assessment: Students reflect on and answer the following questions in written format: What did you learn, notice, or wonder about when measuring with nonstandard units? What were some interesting words you used in this lesson? Explain, in your own words, why standardized units and tools are important when measuring. Can you ever get an exact measurement of length? Why or why not? (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>Harcourt Performance Assessment Pencil</p> <p>http://illuminations.nctm.org/LessonDetail.aspx?ID=L635 estimating and measuring with standard and nonstandard units</p> <p>Materials: pencil, paper</p>

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3rd Nine Weeks	<p>See Strand/Standard/ Benchmark above on page 27.</p> <p>Strand: Geometry Standard: Students will understand geometric concepts and applications 5-8 Benchmark: Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p>See Performance Standard/ Essential Question above on page 27</p> <p>Introduction 3. D.2 Identify and explain circumference, radius, and diameter.</p>	<p>NCTM offers a lesson plan in which students use measurement to investigate where clothing sizes come from, and to explore how sizes differ between companies and countries. Two activity sheets are provided. Assessment: Have students answer the questions on the <u>My Own Measurements</u> and <u>Clothing Sizes</u> activity sheets. This can be a written assignment or an informal math conversation. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>3.D.2 Suggested Harcourt Text Lessons: 20.4, 25.4 Assessment: Selected Chapter Review Items</p> <p>Writing Students respond in written form to the following prompt: Explain how to find the circumference of a circle that has a radius of 7 cm. Assessment: Teacher will review written work for accuracy. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Literature Connection: Read <u>Sir Cumference and the First Round Table: A Math Adventure</u> by Cindy Neuschwander. Sir Cumference, his wife Di of Ameter, and their son Radius draw diagrams and use reasoning to help readers learn geometry concepts. Assessment: Students will compare and contrast the properties of a circle, rectangle, and triangle. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>http://illuminations.nctm.org/LessonDetail.aspx?ID=L593</p> <p>Harcourt Materials 3.D.2 Circumference, radius, & diameter Reteach, Practice, & Problem-solving 20.4 Extra Practice: Student Edition p. 450, Set C Alternative Teaching Strategy TE p. 438B, 440 Think Math! 9.2, 9.5, 9.6, 9.7</p> <p>Paper pencil</p> <p><u>Sir Cumference and the First Round Table: A Math Adventure</u> by Cindy Neuschwander</p>

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3rd Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications 5-8 Benchmark: Analyze characteristics and properties of two-and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p> <p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities 5-8 Benchmark: Develop and evaluate inferences and predictions that are based on data</p>	<p>Introduction 3. D.2 Identify and explain circumference, radius, and diameter.</p> <p>5. C.1-5. C.7 Review/Master 5. C.1 Make and justify valid inferences, predictions, & arguments based on statistical analysis. 5. C.2 Compare a given prediction with the results of an investigation. 5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution. 5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems. 5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.</p>	<p>3.D.2 Suggested Harcourt Text Lessons: 20.4, 25.4 Assessment: Selected Chapter Review Items Students will use strips of paper or measuring tapes to measure length and/or circumference of various parts of their own bodies. They will analyze the measurements for relationships such as equal to, twice the length, half the length, and one and a half times the length. A complete lesson plan and student activity sheets can be found on this NCTM website. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Collect the My Measurement activity sheets. Note whether data is complete and reasonable. During the investigation note whether students were able to accurately measure, and able to see the equal, double, half, and one and a half times relationships. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>5.C.1 Suggested Harcourt Text Lessons: 30.1, 30.2, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.2 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.5 Suggested Harcourt Text Lessons: 30.4, 30.5, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.C.6 Suggested Harcourt Text Lessons: 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.7 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p>	<p>http://illuminations.nctm.org/LessonDetail.aspx?id=L659 use tools to measure length and/or circumference</p> <p>Construction paper Measuring tapes Scotch tape Centimeter rulers Mirrors</p> <p>Harcourt Materials 5.C.1 Inferences, predictions, & arguments Reteach, Practice, & Problem-solving 2.4 Alternative Teaching Strategy TE p. 30B Think Math! 14.1, 14.2, 14.3</p>

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3rd Nine Weeks	<p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities 5-8 Benchmark: Develop and evaluate inferences and predictions that are based on data</p>	<p>Review/Master 5. C.1 Make and justify valid inferences, predictions, & arguments based on statistical analysis. 5. C.2 Compare a given prediction with the results of an investigation. 5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution. 5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems. 5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.</p>	<p>Students use data analysis to seek answers to the types of questions often posed by consumer agencies and people who work in sales and marketing. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Students justify their inferences and/or predictions by supporting their arguments based on statistical analysis they evaluate the reasonableness of their conclusions based on the accuracy of their data. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>http://illuminations.nctm.org/LessonDetail.aspx?ID=L242 use data analysis to justify inference, predictions, and arguments</p>

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3rd Nine Weeks		<p>Review & Master 5. C.3 Use counting strategies to determine all the possible outcomes of a particular familiar event. 5. C.4 Find all possible outcome sets involving four or more sets of objects. 5. C.8 List all possible outcomes of simple events</p> <p>Introduce & Review 5. D.1 Determine probabilities through experiments and/or simulations and compare the results with mathematical expressions 5. D.2 Make predictions from the results of student-generated experiments of single events.</p> <p>Introduce & Review 5. D.6 Use probability to generalize from a simple pattern or set of examples and justify why the generalization is reasonable.</p>	<p>5.C.3 Suggested Harcourt Text Lessons: 30.2, 30.4, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.C.4 Suggested Harcourt Text Lessons: 30.2, 30.4, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.C.8 Suggested Harcourt Text Lessons: 30.4, 30.5, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.D.1 Suggested Harcourt Text Lessons: 6.6, 30.1, Assessment: Selected Chapter Review Items</p> <p>5.D.2 Suggested Harcourt Text Lessons: Assessment: Selected Chapter Review Items</p> <p>Students are encouraged to discover all of the combinations for the given situation. Students apply problem-solving skills (including elimination and collection of organized data) to draw their conclusions. The use of higher-level thinking skills (synthesis, analysis, and evaluations) is the overall goal. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Given six colors for t-shirts and shorts, students will provide a written and illustrated response with the correct outcome. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>5.D.6 Suggested Harcourt Text Lessons: Assessment: Selected Chapter Review Items</p>	<p>Harcourt Materials 5.D.1 Probabilities with mathematical expressions Reteach, Practice, & Problem-solving 30.1, 30.2, 30.3, 30.6, Extra Practice: Student Edition p. 666, Set A, Set B, Alternative Teaching Strategy TE p. 654 Think Math! 6.9, 6.10, 6.11</p> <p>http://illuminations.nctm.org/LessonDetail.aspx?ID=L180 apply problem-solving skills including elimination and collection of organized data to draw conclusions through syntheses, analysis, and evaluations.</p>

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3rd Nine Weeks		5. D.5 Use fractions to describe the results of an experiment	<p>5.D.5 Suggested Harcourt Text Lessons: 30.2 Assessment: Selected Chapter Review Items</p> <p>Instructional Strategies: Review the definition of a ratio. A ratio is a comparison of two numbers. We generally separate the two numbers in the ratio with a colon (:). Suppose we want to write the ratio of 8 and 12. We can write this as 8:12 or as a fraction $\frac{8}{12}$, and we say the ratio is <i>eight to twelve</i>. Example: John has a bag with 3 videocassettes, 4 marbles, 7 books, and 1 orange.</p> <p style="padding-left: 20px;">What is the ratio of books to marbles? Expressed as a fraction, with the numerator equal to the first quantity and the denominator equal to the second, the answer would be $\frac{7}{4}$. Two other ways of writing the ratio are 7 to 4, and 7:4</p> <p>Give each student a small package of M & M candy and a napkin or paper towel. Have them open the package and separate the candy by color. Ask the students to chart the ratios by color: (e.g., red to green, blue to yellow, brown to red etc. (Prob-sol., R&P, Comm, Con., Rep.))</p> <p>Assessment: After they have prepared the chart, have them state the ratios in all three formats. Ask if there are any ratios that are equivalent. Remind students that to compare ratios, write them as fractions. The ratios are equal if they are equal when written as fractions. Remind students that the fractions may have different numerators and denominators but still be equivalent.</p> <p>Have students read <i>If You Hopped Like a Frog</i> by David M. Schwartz. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Assessment: Have them think about other “ifs” and share with the class. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>Writing Focus: Divide the class into groups and distribute to each group a piece of string that is at least as long as the tallest student in the class. Have each student find his/her own ratio of head</p>	<p>M&M’s Napkins Chart paper markers</p> <p><i>If You Hopped Like a Frog</i> by David M. Schwartz</p>

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3rd Nine Weeks		<p>5. D.4 Describe and predict the results of a probability experiment.</p> <p>5. D.3 Identify simple experiments where the probabilities of all outcomes are equal.</p>	<p>Circumference to body length, estimating the results to the nearest quarter inch. Have students find other ratios, such as the ratio of arm span to height. Have them state the ratio as a decimal, a fraction and a percent. Assessment: Have them write a report explaining their findings. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>5.D.4 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p> <p>Brainpop.com provides students a virtual lesson, quiz, and a experiment on “Basic Probability” Assessment: Students take a graded quiz, review quiz, or printed quiz with immediate feedback. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>5.D.3 Suggested Harcourt Text Lessons: 30.2 Assessment: Selected Chapter Review Items This student interactive, from Illuminations, allows students to create their own spinners and examine the outcomes given a specified number of spins. Students learn that experimental probabilities differ according to the characteristics of the model. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Conduct a probability experiment and compare the experimental probability with the theoretical probability. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>String Paper pencil</p> <p>www.brainpop.com video, cartoon, experiment, and quiz related to probability</p> <p>http://illuminations.nctm.org/ActivityDetail.aspx?id=79 interactive spinner</p>

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<p>4th Nine Weeks * Denotes items that are not tested on the Harcourt Quarterly Assessment. Prob.-Sol/ Problem Solve, R&P/ Reason & Proof, Comm./ Communication, Con./ Connections Rep./Representation</p>	<p>2. A.1 Identify and graph ordered pairs in the first quadrant of the coordinate plane. 2. A.2 Describe, represent and analyze patterns and relationships. 2. A.3 Identify, describe, and continue patterns presented in a variety of formats (e.g. numeric, visual, oral, written, kinesthetic, pictorial). 2. A.4 Generate a pattern using a written description. 3. A.1 Identify, describe, and classify two-dimensional shapes and three-dimensional figures by their properties. 3. A.2 Recognize and describe properties of regular polygons having up to ten sides.* 3. A.3 Identify faces, edges, and bases on three-dimensional objects.* 3. B.1 Recognize perpendicular and parallel lines.* 3. C.1 Identify line of symmetry in simple geometric figures. 5. C.1 Make & justify valid inferences, predictions, & arguments based on statistical analysis. 5. C.2 Compare a given prediction with the results of an investigation.* 5. C.3 Use counting strategies to determine all the possible outcomes of a particular familiar event.* 5. C.4 Find all possible outcome sets involving four or more sets of objects.* 5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution.* 5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems.* 5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.* 5. C.8 List all possible outcomes of simple events.*</p>			
Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
<p>4th Nine Weeks</p>	<p>Strand: Algebra Standard: Students will understand algebraic concepts and applications. 5-8 Benchmark: Understand patterns, relationships, and functions.</p>	<p>Review/Mastery 2. A.1 Identify and graph ordered pairs in the first quadrant of the coordinate plane.</p>	<p>2.A.1 Suggested Harcourt Text Lessons: 6.2, 8.2, 23.1, 23.2, 23.4 Assessment: Selected Chapter Review Items Draw a grid on the board with a horizontal (x-axis), and a vertical (y-axis). List the following terms for students and have them write a definition for them in their own words as you review the concepts: coordinate points, x-axis, y-axis, origin, intersection, and ordered pair. Tell students that to locate a point on a grid, they first need to begin from 0 on the horizontal axis. (Show students where the x and y axes intersect and label that point 0.) Tell students that we locate points on a grid by using ordered pairs. Ordered pairs, such as (4,5) always list the x coordinate first and then the y coordinate. Therefore, (4,5) on the grid would be 4 units to the right on the horizontal axis, starting from 0, and then 5 units "up" on the vertical axis. (Show students.) Tell students that ordered pairs are always written inside parentheses. The points located on the same grid are called coordinate points. Give students several ordered pairs to locate on the grid. (Prob.-Sol., R&P, Comm. Con, Rep.) Reading Focus: Use books to introduce coordinate graphing (e.g., <i>Cartesian Cartoons</i> by Mr. E) Plot coordinates to connect points to form a picture. (Prob.-Sol., R&P, Comm. Con, Rep.)</p>	<p><i>Cartesian Cartoons</i> by Mr. E</p>

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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
4th Nine Weeks		<p>Review/Mastery 2. A.2 Describe, represent and analyze patterns and relationships.</p> <p>Review/Mastery 2. A.3 Identify, describe, and continue patterns presented in a variety of formats (e.g. numeric, visual, oral, written, kinesthetic, pictorial).</p> <p>Review/Mastery 2. A.4 Generate a pattern using a written description.</p>	<p>2.A.2 Suggested Harcourt Text Lessons: 12.3, 12.4 Assessment: Selected Chapter Review Items</p> <p>2.A.3 Suggested Harcourt Text Lessons: 10.1, 11.1, 20.7 Assessment: Selected Chapter Review Items</p> <p>2.A.4 Suggested Harcourt Text Lessons: 8.2, 10.1, 11.1, 12.3, 12.4, 20.7, p. 419 Assessment: Selected Chapter Review Items</p> <p>Students solve for an unknown variable in real life situation. Use problems, such as $n \times \\$1.50 = \\6.00 to allow students to work together and determine the answer. Provide paper coin manipulatives so that students may work out the problems.</p> <p>Using a newspaper, have each student look at the cost of a stock. Ask the students to find the increase or decrease for that stock. Have students generate a table that shows how the value of the stock would change in one week if it gained or lost the same amount every day. Have students record the projected data on a bar graph. Ask students how long it would be before the stock was worth double or half its original value. (Prob.-Sol., R&P, Comm. Con, Rep.)</p> <p>Reading Focus: Share with the students activities that include problems with variables, such as those found in <i>The XYZ Primary Algebra: Introducing the Great Unknown</i> by Rod Cameron.</p> <p>Writing Focus: Students write a summary of their findings. (Prob.-Sol., R&P, Comm. Con, Rep.)</p>	<p>Harcourt Materials 2.A.2, 2.A.3, & 2.A.4 Patterns and Relationships Reteach, Practice, Problem-Solving: 12.3 Extra Practice: SE p. 262, Set C Alternative Teaching Strategy: TE p. 252B Mega Math TNG/TT Level K</p> <p>Think Math! 1.3, 5.4, 6.8, 7.3, 7.11, 8.1, 8.2, 9.9, 15.2, 15.3, 15.4, 15.5, 15.6</p>

Portales Municipal Schools
CURRICULUM MAP

Subject: Mathematics	May 2009	Grade Level: Fifth Grade
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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
4th Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Analyze characteristics and properties of two and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships.</p>	<p>Review/Mastery 3. A.1 Identify, describe, and classify two-dimensional shapes and three-dimensional figures by their properties. Review/Mastery 3. A.2 Recognize and describe properties of regular polygons having up to ten sides.*</p>	<p>3.A.1 Suggested Harcourt Text Lessons: 21.1, 21.2, 21.5 Assessment: Selected Chapter Review Items</p> <p>3.A.2 Suggested Harcourt Text Lessons: 20.3, 23.3, 21.4 Assessment: Selected Chapter Review Items</p> <ul style="list-style-type: none"> • Students identify and construct a 3-D object and a cube to learn the concept of the net of a 3D object • Create a geometric design using predetermined shapes and angles. • Create and draw a t-shirt design using a predetermined number and type of shape or angle. • Create a memory game to match the same type of triangles and angles. • Given a work of art students identify and measure angles and triangles. • Design a work of art using specified angles • Using a bicycle, identify and label the lines, rays, angles, shapes and symmetry found on the bike. (Prob-sol., R&P, Comm, Con., Rep.) 	<p>Harcourt Materials 3.A.1 Two-dimensional shapes and three-dimensional figures Reteach, Practice, Problem-Solving: 29.2, 29.3, 29.4 Extra Practice: SE p. 626, Set A; 548 Set C Alternative Teaching Strategy: TE pp. 616B, 640B Think Math! 6.3, 6.4, 6.6, 9.2, 9.3, 9.4, 9.7, 9.8</p>

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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
4th Nine Weeks	<p>Strand: Geometry Standard: Students will understand geometric concepts and applications. 5-8 Benchmark: Specify locations and describe spatial relationships using coordinate geometry and other representational systems.</p> <p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities 5-8 Benchmark: Develop and evaluate inferences and predictions that are based on data.</p>	<p>Review/Mastery 3. B.1 Recognize perpendicular and parallel lines.*</p> <p>Review/Mastery 3. C.1 Identify line of symmetry in simple geometric figures.</p> <p>5.C.1-5.C.7 Review/Master 5. C.1 Make and justify valid inferences, predictions, & arguments based on statistical analysis. 5. C.2 Compare a given prediction with the results of an investigation. 5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution. 5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems. 5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.</p>	<p>3.B.1 Suggested Harcourt Text Lessons: 20.1 Assessment: Selected Chapter Review Items During a walking tour of the school building and grounds, find examples of geometry in the real world, including perpendicular and parallel lines. (Prob-sol., R&P, Comm, Con., Rep.)</p> <p>3.C.1 Suggested Harcourt Text Lessons: 20.6, 21.3 Assessment: Selected Chapter Review Items</p> <ul style="list-style-type: none"> • Create symmetrical drawings • Create quilt squares of paper or cloth <p>(Prob-sol., R&P, Comm, Con., Rep.)</p> <p>5.C.1 Suggested Harcourt Text Lessons: 30.1, 30.2, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.2 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.5 Suggested Harcourt Text Lessons: 30.4, 30.5, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.C.6 Suggested Harcourt Text Lessons: 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.7 Suggested Harcourt Text Lessons: 30.1 Assessment: Selected Chapter Review Items</p>	<p>Harcourt Materials 5.C.1 Inferences, predictions, & arguments Reteach, Practice, & Problem-solving 2.4 Alternative Teaching Strategy TE p. 30B Think Math! 14.1, 14.2, 14.3</p>

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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
4th Nine Weeks	<p>Strand: Data Analysis and Probability Standard: Students will understand how to formulate questions, analyze data, and determine probabilities 5-8 Benchmark: Develop and evaluate inferences and predictions that are based on data.</p>	<p>5.C.1-5.C.7 Review/Master 5. C.1 Make and justify valid inferences, predictions, & arguments based on statistical analysis. 5. C.2 Compare a given prediction with the results of an investigation. 5. C.5 Evaluate the reasonableness of inferences that are based on data in the context of the original solution. 5. C.6 Identify the method used to make an inference and/or a prediction on a given data set and solve similar problems. 5. C.7 Determine the accuracy of a prediction or an inference based on the accuracy of the data in a given data set.</p>	<p>5.C.1 Suggested Harcourt Text Lessons: 30.1, 30.2, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.2 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.5 Suggested Harcourt Text Lessons: 30.4, 30.5, 30.6 Assessment: Selected Chapter Review Items</p> <p>5.C.6 Suggested Harcourt Text Lessons: 30.3 Assessment: Selected Chapter Review Items</p> <p>5.C.7 Suggested Harcourt Text Lessons: 30.1, 30.3 Assessment: Selected Chapter Review Items</p> <p>Students use data analysis to seek answers to the types of questions often posed by consumer agencies and people who work in sales and marketing. Assessment: Students justify their inferences and/or predictions by supporting their arguments based on statistical analysis they evaluate the reasonableness of their conclusions based on the accuracy of their data. (Prob-sol., R&P, Comm, Con., Rep.)</p>	<p>http://illuminations.nctm.org/LessonDetail.aspx?ID=L242 use data analysis to justify inference, predictions, and arguments</p>

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Subject:	Mathematics	May 2009	Grade Level: Fifth Grade
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Calendar	Strand/Standard/ Benchmark	Performance Standard	Suggested Student Activities/Assessments	Resources/Materials
4th Nine Weeks		Review/Master 5.C.3 Use counting strategies to determine all the possible outcomes of a particular familiar event. 5.C.4 Find all possible outcome sets involving four or more sets of objects. 5.C.8 List all possible outcomes of simple events	5.C.3 Suggested Harcourt Text Lessons: 30.2, 30.4, 30.6 Assessment: Selected Chapter Review Items 5.C.4 Suggested Harcourt Text Lessons: 30.2, 30.4, 30.6 Assessment: Selected Chapter Review Items 5.C.8 Suggested Harcourt Text Lessons: 30.4, 30.5, 30.6 Assessment: Selected Chapter Review Items Students are encouraged to discover all of the combinations for the given situation. Students apply problem-solving skills (including elimination and collection of organized data) to draw their conclusions. The use of higher-level thinking skills (synthesis, analysis, and evaluations) is the overall goal. (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Given six colors for t-shirts and shorts, students will provide a written and illustrated response with the correct outcome. (Prob-sol., R&P, Comm, Con., Rep.) Have students draw the various combinations they could make if they had two kinds of ice cream cones-regular and sugar-and two flavors of ice cream-vanilla and chocolate. How else could they determine the number of combinations besides drawing them? (Prob-sol., R&P, Comm, Con., Rep.) Assessment: Have students write their answers on the paper below their drawings. (Prob-sol., R&P, Comm, Con., Rep.)	http://illuminations.nctm.org/LessonDetail.aspx?ID=L180 apply problem-solving skills including elimination and collection of organized data to draw conclusions through syntheses, analysis, and evaluations