

**Priority Code**  
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## 5<sup>th</sup> Grade Math Prioritized Curriculum



Goals and Objectives	Priority	Time	Essential Questions	Suggested Activities	Resources	Assessments
<p>Goal 1: The learner will understand and compute with non-negative rational numbers.</p>					<p>Other support materials may be found in:</p> <ul style="list-style-type: none"> <li>• Test- prep Manuals</li> <li>• Competitive Edge</li> <li>• Coach</li> <li>• Blast-off</li> </ul>	<p>The following types of assessment can be used for all of the following activities:</p> <ul style="list-style-type: none"> <li>• Teacher Assessment</li> <li>• Peer Assessment</li> <li>• Problem Solving Decks</li> <li>• EOG Prep Materials</li> <li>• Week by Week Essentials</li> <li>• Letter/numerical Grades</li> <li>• Presentations</li> <li>• Work Samples</li> <li>• Math Stars</li> <li>• Star Math</li> <li>• SuperStar Math</li> <li>• Weekly Tests</li> <li>• EOG Tests</li> </ul>
<p>1.01 Develop number sense for rational numbers 0.001 through 999,999.</p> <p>a. Connect model, number word, and number using a variety of representations.</p> <p>b. Build understanding of place value (thousandths through hundred thousands).</p> <p>c. Compare and order rational numbers.</p> <p>d. Make estimates of rational numbers in appropriate situations.</p>	<p>I</p> <p>I</p> <p>C</p> <p>E</p>	<p>On-going</p>	<p>How do I read, write, and compare numbers through millions?</p> <p>How many different ways can I represent a number?</p> <p>How do I estimate the number of items in a set?</p>	<ul style="list-style-type: none"> <li>• Using place value charts, die, &amp; number tiles, have students create the largest number, smallest number, and compare numbers.</li> <li>• Once a week, bring in a group of items to be estimated. Let students discuss the strategies used.</li> </ul>	<p>Harcourt Math lesson numbers: 1.1, 1.4, 2.1, 2.3, 14.1, 14.2, 14.3, 14.4, 15.1, 15.2, 15.3, 15.4, 15.6, 22.2, 29.1, 29.2, 29.3, 29.4</p> <p>Excel lessons: 1, 2, 4, 7, 19, 20, 29, 35, 36, 60, 63, 64, 65, 66, 79, 80</p> <ul style="list-style-type: none"> <li>• Place Value Charts</li> <li>• Die</li> <li>• Number tiles</li> </ul>	

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<p>1.02 Develop fluency in adding and subtracting non-negative rational numbers (halves, fourths, eighths; thirds, sixths, twelfths; fifths, tenths, hundredths, thousandths; mixed numbers).</p> <p>a. Develop and analyze strategies for adding and subtracting numbers.</p> <p>b. Estimate sums and differences.</p> <p>c. Judge the reasonableness of solutions.</p>	I I I	On-going	<p>How do I add and subtract fractions with like denominators?</p> <p>How do I add and subtract decimal numbers?</p> <p>What do I have to do to add or subtract fractions with unlike denominators?</p> <p>How do I estimate decimals to the nearest whole number?</p>	<ul style="list-style-type: none"> <li>Divide class in half. Give half the students index cards with addition/subtraction problems. Give the other half index cards with matching sums. After the cards have been matched, have students read the complete problems to the class.</li> <li>Have students use place value charts to align decimals and subtract decimal numbers.</li> </ul>	<p>Harcourt Math lesson numbers: 3.3, 3.5, 16.1, 16.2, 16.3, 16.4, 16.5, 17.1, 17.2, 17.3, 17.4</p> <p>Excel lessons: 6, 33, 40, 41, 44, 51, 53, 54, 56, 73, 74, 81, 91, 92, 93, 120, 121, 123, 125, 126, 129, 138, 139</p> <ul style="list-style-type: none"> <li>Index cards</li> <li>Place value charts</li> </ul>	
<p>1.03 Develop flexibility in solving problems by selecting strategies and using mental computation, estimation, calculators or computers, and paper and pencil.</p>	E	On-going	<p>What are the steps to solving a word problem?</p> <p>How do I identify extraneous information in word problems?</p> <p>How do I decide the best problem solving strategy to use?</p>	<ul style="list-style-type: none"> <li>Students will create their own word problems and explain the steps to find a solution.</li> <li>Write word problems on index cards. Have students read problems to class and identify extraneous information in the problems.</li> </ul>	<p>Harcourt Math lesson numbers: 1.5, 2.4, 3.6, 3.7, 4.6, 5.4, 6.4, 7.4, 7.5, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 9.1, 9.2, 9.3, 9.4, 9.5, 10.2, 10.3, 10.4, 10.5, 10.6, 11.4, 12.5, 13.4, 14.5, 15.5, 16.6, 17.5, 18.5, 19.5, 21.6, 22.4, 23.4, 24.7, 25.3, 26.6, 27.5, 28.5, 29.6, 30.6</p> <p>Excel lessons: 3, 10, 19, 30, 31, 42, 46, 77, 82, 95, 117, 18, 119</p> <ul style="list-style-type: none"> <li>Index cards</li> </ul>	

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Goal 2: The learner will recognize and use standard units of metric and customary measurement.					Other support materials may be found in: <ul style="list-style-type: none"> <li>• Test- prep Manuals</li> <li>• Competitive Edge</li> <li>• Coach</li> <li>• Blast-off</li> </ul>	The following types of assessment can be used for all of the following activities: <ul style="list-style-type: none"> <li>• Teacher Assessment</li> <li>• Peer Assessment</li> <li>• Problem Solving Decks</li> <li>• EOG Prep Materials</li> <li>• Week by Week Essentials</li> <li>• Letter/numerical Grades</li> <li>• Presentations</li> <li>• Work Samples</li> <li>• Math Stars</li> <li>• Star Math</li> <li>• SuperStar Math</li> <li>• Weekly Tests</li> <li>• EOG Tests</li> </ul>
2.01 Estimate the measure of an object in one system given the measure of that object in another system.	E	On-going	About how many: <ul style="list-style-type: none"> <li>• centimeters = 1 inch?</li> <li>• kilometers = 1 mile?</li> <li>• meters = 1 yard?</li> <li>• liters = 1 quart?</li> <li>• kilograms = 1 pound?</li> <li>• grams = 1 ounce?</li> <li>• degrees Celsius = 1 degree Fahrenheit?</li> </ul>	In cooperative groups have students create posters showing the relationship between units of measure and everyday objects. Ex: Paperclip – cm/in Textbook – kg/lb Paperclip – g/oz	Harcourt Math lesson numbers: 20.1, 20.2, 20.3, 24.3  Excel lessons: 18, 27, 42	
2.02 Identify, estimate, and measure the angles of plane figures using appropriate tools.	E	On-going	Can I identify an acute, obtuse, and right angle?	Pairs – let students use 2 yardsticks to create an angle; have class identify the type	Yard sticks	

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<p>Goal 3: The learner will understand and use properties and relationships of plane figures.</p>					<p>Other support materials may be found in:</p> <ul style="list-style-type: none"> <li>• Test- prep Manuals</li> <li>• Competitive Edge</li> <li>• Coach</li> <li>• Blast-off</li> </ul>	<p>The following types of assessment can be used for all of the following activities:</p> <ul style="list-style-type: none"> <li>• Teacher Assessment</li> <li>• Peer Assessment</li> <li>• Problem Solving Decks</li> <li>• EOG Prep Materials</li> <li>• Week by Week Essentials</li> <li>• Letter/numerical Grades</li> <li>• Presentations</li> <li>• Work Samples</li> <li>• Math Stars</li> <li>• Star Math</li> <li>• SuperStar Math</li> <li>• Weekly Tests</li> <li>• EOG Tests</li> </ul>
<p>3.01 Identify, define, describe, and accurately represent triangles, quadrilaterals, and other polygons.</p>	E	On-going	<p>What are the characteristics of:</p> <ul style="list-style-type: none"> <li>• polygons?</li> <li>• triangles?</li> <li>• quadrilaterals?</li> <li>• pentagons?</li> <li>• hexagons?</li> <li>• octagons?</li> </ul> <p>What is a parallelogram?            What are the 3 kinds of triangles?</p>	<ul style="list-style-type: none"> <li>• Use geoboards to create figures.</li> <li>• Using pattern blocks, have students identify the angles, vertices, edges, and faces.</li> <li>• Read <u>The Greedy Triangle</u> by Marilyn Burns.</li> </ul>	<p>Harcourt Math lesson numbers: 20.3, 21.1, 21.2</p> <p>Excel lessons: 11, 23, 48</p> <ul style="list-style-type: none"> <li>• <u>The Greedy Triangle</u> by Marilyn Burns</li> <li>• Geoboards</li> <li>• Pattern blocks</li> </ul>	

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3.02 Make and test conjectures about polygons involving: a. Sum of the measures of interior angles. b. Lengths of sides and diagonals. c. Parallelism and perpendicularity of sides and diagonals.	E C C	On-going	What conclusion can I draw about the sum of the measures of the interior angles of quadrilaterals and triangles?  What are examples of parallel and perpendicular lines in things I see every day?	<ul style="list-style-type: none"> <li>Using pattern blocks and protractors, students can measure the angles and make observations about the relationships.</li> <li>Using the digital camera, send students to take pictures of parallel and perpendicular lines around the school. Put the pictures on the computer and let students identify the lines.</li> </ul>	Harcourt Math lesson numbers: 20.1, 20.3, 21.1, 21.2, 25.2  Excel lessons: 9, 13, 16, 17, 26, 47, 110, 111, 133, 134  <ul style="list-style-type: none"> <li>Pattern blocks and protractors</li> <li>Digital camera and computer</li> </ul>	
3.03 Classify plane figures according to types of symmetry (line, rotational).	I	On-going	What letters of the alphabet have rotational symmetry?  What are examples of symmetry which I see every day?	<ul style="list-style-type: none"> <li>Using letter cut-outs, have students decide if each letter has symmetry or rotational symmetry.</li> <li>Use geoboards to create figures which show rotational symmetry.</li> </ul>	Harcourt Math lesson numbers: 20.6  <ul style="list-style-type: none"> <li>Letter cut-outs</li> <li>Geoboards</li> </ul>	
3.04 Solve problems involving the properties of triangles, quadrilaterals, and other polygons. a. Sum of the measures of interior angles. b. Lengths of sides and diagonals. c. Parallelism and perpendicularity of sides and diagonals.	E C C	On-going	Can I identify and label the vertex, rays, interior, and exterior of an angle?  How do I find the area and perimeter of plane figures?	<ul style="list-style-type: none"> <li>After finding angles in magazine pictures, students will measure/identify the parts of the angles in their pictures.</li> <li>Use geoboards to create figures, measure angles, and label the parts of an angle.</li> </ul>	Harcourt Math lesson numbers: 20.1, 20.3, 20.5, 21.1, 21.2  Excel lessons: 48  <ul style="list-style-type: none"> <li>Magazine pictures</li> <li>Geoboards</li> </ul>	

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<p>Goal 4: The learner will understand and use graphs and data analysis.</p>					<p>Other support materials may be found in:</p> <ul style="list-style-type: none"> <li>• Test- prep Manuals,</li> <li>• Competitive Edge</li> <li>• Coach</li> <li>• Blast-off</li> </ul>	<p>The following types of assessment can be used for all of the following activities:</p> <ul style="list-style-type: none"> <li>• Teacher Assessment</li> <li>• Peer Assessment</li> <li>• Problem Solving Decks</li> <li>• EOG Prep Materials</li> <li>• Week by Week Essentials</li> <li>• Letter/numerical Grades</li> <li>• Presentations</li> <li>• Work Samples</li> <li>• Math Stars</li> <li>• Star Math</li> <li>• SuperStar Math</li> <li>• Weekly Tests</li> <li>• EOG Tests</li> </ul>
<p>4..01 Collect, organize, analyze, and display data (including stem-and-leaf plots) to solve problems.</p>	E	On-going	<p>How do I organize information in:</p> <ul style="list-style-type: none"> <li>• line graphs?</li> <li>• circle graphs?</li> <li>• pictographs?</li> <li>• line plots?</li> <li>• stem-and-leaf plots?</li> </ul> <p>Can I interpret graphs in other content areas?</p>	<ul style="list-style-type: none"> <li>• Have students do a survey and graph the data.</li> <li>• After doing a survey and creating a line plot, change it into a bar graph; identify the parts and make observations.</li> <li>• Find, identify, and describe graphs in social studies and science textbooks.</li> </ul>	<p>Harcourt Math lesson numbers: 1.5, 5.1, 5.4, 5.5, 6.1, 6.3, 6.4, 6.5, 6.6, 14.5, 29.6, 30.1, 30.4, 30.5, 30.6</p> <ul style="list-style-type: none"> <li>• Graph paper</li> <li>• Social studies/science graphs</li> </ul>	

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4.02 Compare and contrast different representations of the same data; discuss the effectiveness of each representation.	I	On-going	<p>When should I display data on a:</p> <ul style="list-style-type: none"> <li>• line graph?</li> <li>• bar graph?</li> <li>• pictograph?</li> <li>• stem-and-leaf plot?</li> <li>• line plot?</li> <li>• circle graph?</li> </ul> <p>If I change the interval on a bar graph, how will it change the way the data looks?</p>	<ul style="list-style-type: none"> <li>• After surveying the class, decide which graph is most appropriate for the data. In cooperative groups, create the graph.</li> <li>• Using a spreadsheet, put in data and experiment with computer-generated graphs; evaluate which is most appropriate.</li> </ul>	<p>Harcourt Math lesson numbers: 5.5, 6.1, 6.3, 6.4, 6.6</p> <p>Computer and spreadsheet software</p>	
4.03 Solve problems with data from a single set of multiple sets of data using median, range, and mode.	E	On-going	<p>Can I identify the range, median, and mode in a set of data?</p>	<p>Gather weather information and analyze it for range, median, and mode.</p> <p>Gather sports information from a <u>World Almanac</u> and identify range, median, and mode</p>	<p>Harcourt Math lesson numbers: 5.1, 5.3, 5.4, 6.5</p> <p>Excel lessons 49, 50</p> <p><u>World Almanac</u></p>	

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<p>Goal 5: The learner will demonstrate an understanding of patterns, relationships, and elementary algebraic representation.</p>					<p>Other support materials may be found in:</p> <ul style="list-style-type: none"> <li>• Test- prep Manuals,</li> <li>• Competitive Edge</li> <li>• Coach</li> <li>• Blast-off</li> </ul>	<p>The following types of assessment can be used for all of the following activities:</p> <ul style="list-style-type: none"> <li>• Teacher Assessment</li> <li>• Peer Assessment</li> <li>• Problem Solving Decks</li> <li>• EOG Prep Materials</li> <li>• Week by Week Essentials</li> <li>• Letter/numerical Grades</li> <li>• Presentations</li> <li>• Work Samples</li> <li>• Math Stars</li> <li>• Star Math</li> <li>• SuperStar Math</li> <li>• Weekly Tests</li> <li>• EOG Tests</li> </ul>
<p>5.01 Describe, extend, and generalize numeric and geometric patterns using tables, graphs, words, and symbols.</p>	I	on-going	<p>What are the methods for finding equivalent fractions?</p> <p>How do I determine patterns in a variety of problems?</p> <p>What are examples of patterns I see every day?</p>	<p>Use overhead and student fraction circles to explore equivalent fractions both pictorially and mathematically.</p>	<p>Harcourt math lesson number: 8.2, 10.1, 11.1, 12.3, 12.4, 13.1, 20.7, 23.1</p> <p>Excel lessons: 21, 28, 45, 55, 148</p> <p>Fraction circles</p>	

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5.02 Use algebraic expressions, patterns, and one-step equations and inequalities to solve problems.	E	On-going	<p>What is the order of operations?</p> <p>What is a variable?</p> <p>How do I use a function table to predict the next number in a series?</p>	<ul style="list-style-type: none"> <li>Write expressions on the board. Have students tell which operations to do first, second, and third. Then, have them find the value of the expression.</li> <li>Create tables where a general rule is followed. Have students determine the rule.</li> <li>Use manipulatives (number tiles, alphabet cereal) to model and solve problems containing variables.</li> </ul>	<p>Harcourt Math lesson numbers: 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 12.1, 12.2, 12.6, 12.7, 20.7, 25.2, 25.4, 26.2</p> <p>Excel lessons: 7, 10, 45, 86</p> <p>Manipulatives (number tiles, alphabet cereal)</p>	
5.03 Identify, describe, and analyze situations with constant or varying rates of change.	E	On-going	<p>If the trend on this graph continues, what will happen next?</p> <p>What is a constant rate of change?</p> <p>What is a varying rate of change?</p> <p>Can I predict what the <math>n^{\text{th}}</math> number will be if the pattern continues?</p>	<ul style="list-style-type: none"> <li>Using manipulatives such as pattern blocks, build designs that grow according to regular patterns and predict a given row.</li> <li>Given a table showing the relationship of numbers, students will write the numbers and graph them. Then discuss the change as varying or constant. (Harcourt Math, p 498B)</li> </ul>	<p>Harcourt Math lesson numbers: 12.4, 23.1</p> <ul style="list-style-type: none"> <li>Pattern blocks</li> <li>Graph paper</li> </ul>	