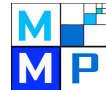


## Holt Grade 7 2007–2008 Mathematics Curriculum Guides

	Wisconsin Mathematics Standard	MPS Learning Target	Wisconsin Assessment Descriptors for Mathematics	Curriculum
Throughout The Year	<b>A. Mathematical Processes</b>	<p><i>Note: Mathematical processes need to be embedded in all mathematical strands throughout the school year. Math processes are assessed on the WKCE-CRT and reported as a separate proficiency area. For example, students are asked to provide written justifications and explanations, pose problems, and represent concepts.</i></p>	<p><b>1) Reasoning:</b> Use reasoning and logic to:</p> <ul style="list-style-type: none"> <li>• Perceive patterns</li> <li>• Formulate questions</li> <li>• Make conjectures</li> <li>• Identify relationships</li> <li>• Pose problems</li> <li>• Justify strategies</li> <li>• Test reasonableness of results</li> </ul> <p><b>2) Communication:</b> Communicate mathematical ideas and reasoning using the vocabulary of mathematics in a variety of ways (e.g., using words, numbers, symbols, pictures, charts, tables, diagrams, graphs, and models).</p> <p><b>3) Connections:</b> Connect mathematics to the real world as well as within mathematics.</p> <p><b>4) Representations:</b> Create and use representations to organize, record, and communicate mathematical ideas.</p> <p><b>5) Problem Solving:</b> Solve and analyze routine and non-routine problems.</p>	

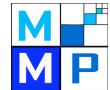




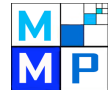
<p><b>October / November</b></p>	<p><b>Chapter 3: Applying Rational Numbers</b></p>	<p><b>Number Operations and Relationships:</b>  <b>Learning Target #1</b>                  Represent, rename, compare, and identify equivalent forms of fractions, decimals, and percents using place value and number theory concepts. <b>(2.9, 2.10, 2.11)</b></p> <p><b>Number Operations and Relationships:</b>  <b>Learning Target #2</b>                  Estimate and justify solutions to problems with and without context involving whole numbers, integers, and rational numbers, including applications of proportional reasoning. <b>(2.2, 2.3, 2.4, 2.6, 2.7, 2.8)</b></p> <p><b>Number Operations and Relationships:</b>  <b>Learning Target #1</b>                  Represent, rename, compare, and identify equivalent forms of fractions, decimals, and percents using place value and number theory concepts. <b>(3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12)</b></p>	<p><b>Number Operations and Relationships:</b>  <b>B.a.3</b> Compare and order a set of fractions or decimals (to the hundredths place) and use symbols (&lt;, &gt;, =, ≠). <b>(2.11)</b>  <b>B.a.4</b> Identify and use number theory concepts:  <ul style="list-style-type: none"> <li>• Prime and composite numbers</li> <li>• Divisibility potential of numbers (divisors of 1-10, 25, and multiples of 10).</li> <li>• Least common multiples</li> <li>• Greatest common factor of two numbers <b>(2.6, 2.7, 2.8)</b></li> </ul> <b>B.a.7</b> Identify equivalent forms of fractions, decimals, and percents. <b>(2.10)</b>  <b>B.b.10</b> Add and subtract decimals including thousandths with and without text. Multiply decimals and integers (-100 to 100) including thousandths with and without context. (Ex. Interest rates). Divide decimals and integers in problems with and without context. <b>(2.2, 2.3, 2.4)</b>  <b>B.b.12</b> Add and subtract mixed numbers and fractions with unlike denominators, multiply mixed numbers. <b>(2.9)</b>  <b>B.b.13</b> Estimate the sum, difference, and product of whole numbers, common fractions, mixed numbers, and decimals to thousandths. <b>(2.2, 2.3, 2.4)</b></p> <p><b>Mathematical Processes:</b>  <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concepts</i></p> <p><b>Number Operations and Relationships:</b>  <b>B.a.1</b> Recognize and apply place-value concepts to numbers less than 100,000,000 with decimals to the thousandths place. <b>(3.1, 3.2)</b>  <b>B.b.8</b> Use all operations in everyday situations to solve single or multi-step word problems. <b>(3.2, 3.3, 3.4, 3.5, 3.8, 3.11, 3.12)</b>  <b>B.b.10</b> Add and subtract decimals including thousandths with and without text. Multiply decimals and integers (-</p>	<p><i>learning) initiatives promoted by the MMP.</i></p> <p><b>Number Operations and Relationships:</b>                  #1, 7a, 7b, 7c, 7d</p> <p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Number Operations and Relationships:</b>                  #3, 8, 10</p>
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	<p><b>Chapter 4: Patterns and Functions</b></p>	<p><b>Algebraic Relationships: Learning Target #9</b> Describe functional relationships in words, tables, graphs, and symbolic rules, extend and justify sequences, and describe graphs of real-world situations. <b>(4.1,4.2, 4.3, 4.4, 4.5, 4.6)</b></p>	<p>100 to 100) including thousandths with and without context. (Ex. Interest rates). Divide decimals and integers in problems with and without context. <b>(3.1, 3.2, 3.3, 3.4, 3.5, 3.8)</b>  <b>B.b.11</b> Demonstrate understanding of the concept of division of fractions in a contextual setting. <b>(3.11)</b>  <b>B.b.12</b> Add and subtract mixed numbers and fractions with unlike denominators, multiply mixed numbers. <b>(3.9, 3.10)</b>  <b>B.b.13</b> Estimate the sum, difference, and product of whole numbers, common fractions, mixed numbers, and decimals to thousandths. <b>(3.1, 3.3, 3.7)</b>  <b>B.b.14</b> Determine reasonableness of answers. <b>(3.2, 3.3, 3.4)</b></p> <p><b>Mathematical Processes:</b>  <i>Mathematical processes are embedded throughout all lessons. For example, students are asked to provide written justifications and explanations, pose problems, and represent concepts.</i></p> <p><b>Algebraic Relationships:</b>  <b>F.a.3</b> Extend an increasing or decreasing arithmetic or geometric pattern. <b>(4.5)</b>  <b>F.a.4</b> Describe and interpret linear patterns in tables and graphs. <b>(4.1, 4.2, 4.3, 4.6)</b>  <b>F.a.5</b> Identify the rule to complete or extend a function table or any combination of the two using one or two operations (+, -, x, ÷) and numbers (-100 through 100) in the function table. <b>(4.4)</b>  <b>F.a.6</b> Describe real-world phenomena represented by a graph. Describe real-world phenomena that a given graph might represent. <b>(4.1, 4.3)</b>  <b>F.a.7</b> Justify the accuracy of the chosen item in a sequence. <b>(4.5, 4.6)</b>  <b>F.b.10</b> Find values of expressions with one variable and up to two operations including basic operations and exponents. <b>(4.4)</b>  <b>F.b.12</b> Write an algebraic expression (with one or two operations) which generalizes a linear pattern. <b>(4.6)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Algebraic Relationships:</b>                  #7, 11</p>
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<p><b>November / December</b></p>	<p><b>Chapter 5: Proportional Relationships</b></p>	<p><b>Number Operations and Relationships:</b> <b>Learning Target #2</b> Estimate and justify solutions to problems with and without context involving whole numbers, integers, and rational numbers, including applications of proportional reasoning. <b>(5.1, 5.2, 5.3, 5.4, 5.5, 5.7, 5.8, 5.9)</b></p> <p><b>Measurement:</b> <b>Learning Target #5</b> Estimate and determine the perimeter/circumference and area of polygons and circles and the volume and surface area of cylinders, prisms, and pyramids. <b>(5.6, 5.8)</b></p> <p><b>Geometry:</b> <b>Learning Target #4</b> Design and classify symmetrical figures, transform points and figures using the coordinate plane, and apply properties of similarity in problem solving situations. <b>(5.8)</b></p>	<p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Number Operations and Relationships:</b> <b>B.a.7</b> Identify equivalent forms of fractions, decimals, and percents. <b>(5.1, 5.4)</b> <b>B.a.6</b> Apply proportional reasoning to a variety of problem situations (e.g., comparisons, rates, and similarities). <b>(5.2, 5.3, 5.5, 5.7, 5.9)</b></p> <p><b>Measurement:</b> <b>D.a.1</b> Select the appropriate unit of measure (U.S. customary and metric) to estimate the length, liquid capacity, volume, time, and weight/mass of everyday objects. <b>(5.6)</b> <b>D.a.2</b> Convert units within a system e.g., feet to yards; ounces to pounds; inches to feet; pints to quarts. Approximate conversions of units between metric and U.S. customary systems using a model or in context (quart/liter, yard/meter). <b>(5.6)</b></p> <p><b>Geometry:</b> <b>C.b.7</b> Demonstrate understanding of similarity by finding the relationship between the sides of two figures. <b>(5.8)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Number Operations and Relationships:</b> #6c</p>
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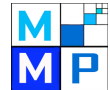
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<p><b>December / January</b></p>	<p><b>Chapter 6: Percents</b></p>	<p><b>Number Operations and Relationships:</b>  <b>Learning Target #1</b>                  Represent, rename, compare, and identify equivalent forms of fractions, decimals, and percents using place value and number theory concepts. (6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7)</p>	<p><b>Mathematical Processes:</b>  <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Number Operations and Relationships:</b>  <b>B.a.7</b> Identify equivalent forms of fractions, decimals, and percents. (5.1, 5.4)  <b>B.a.5</b> Demonstrate understanding of fractions and percents with and without contexts (e.g., sales tax and discounts, 40 is 25 percent of what number?; What number is 25 percent of 160?) (6.3, 6.4, 6.5, 6.6)  <b>B.b.9</b> Solve problems involving percents with and without context. (6.7)</p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Number Operations and Relationships:</b>                  #4, 6a, 9b</p>
<p><b>January / February</b></p>	<p><b>Chapter 7: Collecting, Displaying and Analyzing Data</b></p>	<p><b>Statistics and Probability:</b>  <b>Learning Target #7</b>                  Interpret and analyze data sets and displays using measures of central tendency and variation, and compare data sets to evaluate hypotheses and multiple representations. (7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.10)</p>	<p><b>Mathematical Processes:</b>  <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Statistics and Probability:</b>  <b>E.a.3</b> Create graph with one-variable data sets using back-to-back stem-and-leaf plots, double bar graphs, circle graphs, and line plots and line graphs; discuss appropriateness of graph selected. (7.1, 7.3, 7.7)  <b>E.a.4</b> Find mean, median (with odd or even number of data), mode and range of a set of data with and without context. (7.2, 7.10)  <b>E..a.2</b> Extract, interpret, and analyze data including multiple representations of the same data from tables, double back-to-back stem-and-leaf plots, double bar graphs, simple circle graphs, line plots, line graphs, charts and diagrams with and without context. (7.4, 7.5, 7.6)</p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Statistics and Probability:</b>                  #1a, 1b, 2, 3, 4, 5</p>

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<p><b>February</b></p>	<p><b>Chapter 8: Geometric Figures</b></p>	<p><b>Geometry:</b> <b>Learning Target #3</b> Identify and describe polyhedra from multiple perspectives and determine the measure of angles and angle pairs in polygons. <b>(8.2, 8.3, 8.6, 8.8)</b></p> <p><b>Geometry:</b> <b>Learning Target #4</b> Design and classify symmetrical figures, transform points and figures using the coordinate plane, and apply properties of similarity in problem solving situations. <b>(8.1, 8.5, 8.7, 8.9, 8.10, 8.11)</b></p>	<p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Geometry:</b> <b>C.a.3</b> Determine the sum of the angles of a polygon using diagonals drawn from one vertex. <b>(8.8)</b> <b>C.a.4</b> Determine the measure of an angle in a drawing of an adjacent and supplementary or adjacent and complementary pair of angles when given the measure of the other angle. <b>(8.2, 8.3, 8.6)</b> <b>C.b.6</b> Identify figures that are congruent and / or similar. <b>(8.9)</b> <b>C.b.7</b> Demonstrate understanding of similarity by finding the relationship between the sides of two figures. <b>(8.1, 8.5, 8.7)</b> <b>C.b.8</b> Draw or identify the image of a figure based on one or more transformations (reflection, rotation, and / or translation). <b>(8.10)</b> <b>C.b.9</b> Design symmetrical shapes. Draw or identify lines of symmetry. <b>(8.11)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Geometry:</b> #1a, 1b, 1c, 2a, 2b, 2c, 2d, 4, 8, 11a, 11b, 12</p>
<p><b>March</b></p>	<p><b>Chapter 9: Measurement: Two- Dimensional Figure</b></p>	<p><b>Measurement</b> <b>Learning Target #6</b> Estimate and determine the perimeter / circumference and area of polygons and circles and the volume and surface area of cylinders, prisms, and pyramids. <b>(9.2, 9.3, 9.4, 9.5, 9.6)</b></p>	<p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Measurement:</b> <b>D.b.7</b> Determine perimeter / circumference and area of polygons and circles with and without context. <b>(9.2, 9.3, 9.4, 9.5, 9.6)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Measurement:</b> #1, 1b</p>

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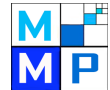
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<p><b>March /April</b></p>	<p><b>Chapter 10: Measurement: Three- Dimensional Figures</b></p>	<p><b>Measurement</b> <b>Learning Target #6</b> Estimate and determine the perimeter / circumference and area of polygons and circles and the volume and surface area of cylinders, prisms, and pyramids. <b>(10.2, 10.3, 10.4, 10.5)</b></p> <p><b>Geometry:</b> <b>Learning Target #3</b> Identify and describe polyhedra from multiple perspectives and determine the measure of angles and angle pairs in polygons. <b>(10.1)</b></p>	<p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Measurement:</b> <b>D.c.9</b> Determine volume and surface area of cylinders, rectangular prisms and pyramids with base shape of triangles, square, regular pentagon, and regular hexagon in real-world context. <b>(10.2, 10.3, 10.4, 10.5)</b></p> <p><b>Geometry:</b> <b>C.b.11</b> Identify and describe 3-dimensional figures from multiple perspectives. <b>(10.1)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Measurement:</b> #11a,</p> <p><b>Geometry:</b> #3</p>
<p><b>April / May</b></p>	<p><b>Chapter 11: Probability</b></p>	<p><b>Statistics and Probability</b> <b>Learning Target #8</b> Design and conduct simulations to solve problems, determine likelihood and fairness of events, and make predictions and analyze outcomes based on theoretical and experimental probability. <b>(11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7)</b></p>	<p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Statistics and Probability:</b> <b>E.b.6</b> Determine the likelihood of an event and probability based on one or two dependent and independent events. <b>(11.1, 11.5)</b> <b>E.b.9</b> Determine the number of arrangements from a set of 5 or less. Es: How many ways could 5 different students stand in a line? <b>(11.6, 11.7)</b> <b>E.b.10</b> Solve problems involving sample spaces and diagrams. <b>(11.3)</b> <b>E.b.11</b> Analyze outcomes based on an understanding of</p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Statistics and Probability:</b> #4, 5, 6, 7</p>

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<p><b>May / June</b></p>	<p><b>Chapter 12: Multi-Step Equations and Inequalities</b></p>	<p><b>Algebraic Relationships: Learning Target #9</b> Describe functional relationships in words, tables, graphs, and symbolic rules, extend and justify sequences, and describe graphs of real-world situations. <b>(12.1, 12.2, 12.3, 12.4, 12.5, 12.6, 12.7)</b></p>	<p>theoretical and experimental probability. <b>(11.2, 11.4)</b></p> <p><b>Mathematical Processes:</b> <i>Mathematical Processes are embedded throughout all lessons when, for example, students are asked to provide written justifications and explanations, pose problems, and represent concept.</i></p> <p><b>Algebraic Relationships:</b> <b>F.b.8</b> Solve single-variable inequalities using symbols. <b>(12.4, 12.5, 12.6, 12.7)</b> <b>F.b.11</b> Solve two-step multi-operation equations with letter variables and whole number or integer coefficients with and without context. <b>(12.1, 12.2, 12.3)</b></p>	<p><i>We hope these district CABS will be used to continue and expand the formative assessment (i.e. assessment for learning vs. assessment of learning) initiatives promoted by the MMP.</i></p> <p><b>Algebraic Relationships:</b> #5, 8</p>
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