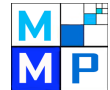


## Holt Grade 6 2007–2008 Mathematics Curriculum Guides

	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</b></p>	<p><b>Chapter 3: Decimals</b></p>	<p><b>Number Operations and Relationships: Learning Target #2</b> Apply, explain, and evaluate strategies to estimate, compare, and compute fractions, decimals, and percents using a variety of methods (e.g., mental computation, technology, manipulatives) with and without context. <b>(3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9)</b></p>	<p>solving for a specified variable. <b>(2.3, 2.4, 2.5)</b> <b>F.c.12</b> Identify a pair of equivalent numerical expressions where the commutative property of either addition or multiplication has been used. <b>(2.5, 2.6, 2.7, 2.8)</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 concepts</i></p> <p><b>Number Operations and Relationships:</b> <b>B.a.4</b> Identify and use number theory concepts:</p> <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>(3.2, 3.4, 3.5, 3.6, 3.7, 3.9)</b></li> </ul> <p><b>B.b.12</b> Determine reasonableness of answers. <b>(3.1, 3.3, 3.5, 3.6, 3.8, 3.9)</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><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> #1, 2, 3, 4</p>
<p><b>October/ November</b></p>	<p><b>Chapter 4: Number Theory and Fractions</b></p>	<p><b>Number Operations and Relationships: Learning Target #1</b> Represent and rename numbers, identify prime and composite numbers, and use factors, multiples, and prime factorization to solve and explain problems. <b>(4.1, 4.2, 4.3)</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.4</b> Identify and use number theory concepts:</p> <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>(4.1, 4.2, 4.3)</b></li> </ul> <p><b>B.b.8</b> Use all operations in everyday situations (including monetary contexts) to solve single or multi-step word problems.</p> <ul style="list-style-type: none"> <li>• Solve problems involving percents with and</li> </ul>	<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> #5, 9, 12</p>

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

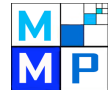
Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p><b>November/ December</b></p>	<p><b>Chapter 5: Fraction Operations</b></p>	<p><b>Number Operations and Relationships:</b> <b>Learning Target #2</b> Apply, explain, and evaluate strategies to estimate, compare, and compute fractions, decimals, and percents using a variety of methods (e.g., mental computation, technology, manipulatives) with and without context <b>(4.6, 4.8, 4.9)</b></p> <p><b>Number Operations and Relationships:</b> <b>Learning Target #1</b> Represent and rename numbers, identify prime and composite numbers, and use factors, multiples, and prime factorization to solve and explain problems. <b>(5.1)</b></p> <p><b>Number Operations and Relationships:</b> <b>Learning Target #2</b> Apply, explain, and evaluate strategies to estimate, compare, and compute fractions, decimals, and percents using a variety of methods (e.g., mental computation, technology, manipulatives) with and without context. <b>(5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10)</b></p>	<p>without context.</p> <ul style="list-style-type: none"> <li>• Add and subtract decimals including thousandths with and without context.</li> <li>• Multiply decimals including hundredths with and without context.</li> <li>• Divide decimals including hundredths by single-digit divisors in problems with and without context. <b>(4.8, 4.9)</b></li> </ul> <p><b>B.b.11</b> Estimate the sum, difference, and product of whole numbers, common fractions, mixed numbers, and decimals to thousandths and estimate benchmark fractions. <b>(4.6)</b> <b>B.b.12</b> Determine reasonableness of answers. <b>(4.6, 4.9)</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.4</b> Identify and use number theory concepts:</p> <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>(5.1)</b></li> </ul> <p><b>B.b.8</b> Use all operations in everyday situations (including monetary contexts) to solve single or multi-step word problems.</p> <ul style="list-style-type: none"> <li>• Solve problems involving percents with and without context.</li> <li>• Add and subtract decimals including thousandths with and without context.</li> <li>• Multiply decimals including hundredths with and without context.</li> <li>• Divide decimals including hundredths by single-digit divisors in problems with and without context. <b>(5.2)</b></li> </ul> <p><b>B.b.9</b> Demonstrate understanding of the concept of division of fractions in a contextual setting. <b>(5.9, 5.10)</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> #11, 13</p>
--------------------------------------	--	--	---	--

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

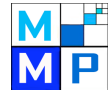
Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p><b>January</b></p>	<p><b>Chapter 6: Collecting and Displaying Data</b></p>	<p><b>Statistics and Probability: Learning Target #7</b> Interpret and summarize data sets and displays using measures of central tendency and variation (e.g., range), and evaluate hypotheses and multiple representations for a given data set.</p> <p><b>Geometry: Learning Target #4</b> Use specifications to plot, construct and transform points and shapes on the coordinate plane.</p>	<p><b>B.b.10</b> Add, subtract, and multiply mixed numbers and fractions with like and unlike denominators. <b>(5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.10)</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>Statistics and Probability:</b> <b>E.a.1</b> Summarize data sets in tables, charts, and diagrams with and without context. <b>(6.1)</b> <b>E.a.3</b> Extract, interpret, and analyze data from tables, simple stem-and-leaf plots, simple bar graphs, line plots, line graphs, simple circle graphs, charts, and diagrams. <b>(6.4, 6.5, 6.7, 6.8, 6.9)</b> <b>E.a.4</b> Create graphs with one-variable data sets using simple stem-and-leaf plots, bar graphs, circle graphs, line plots and line graphs; discuss appropriateness of graphs selected. <b>(6.7, 6.9, 6.10)</b> <b>E.a.5</b> Find mean, median (with odd set of data), mode and range of a set of data with and without context. <b>(6.2)</b></p> <p><b>Geometry:</b> <b>C.c.13</b> Identify, locate, plot coordinates in the four quadrants and transformations of points across the x- or y-axis. <b>(6.6)</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 concepts.</i></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> #2,3</p> <p><b>Geometry:</b> #12</p>
<p><b>January / February</b></p>	<p><b>Chapter 7: Proportional Relationships</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</i></p>

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p>February</p>	<p><b>Chapter 8: Geometric Relationships</b></p>	<p><b>Number Operations and Relationships:</b> <b>Learning Target #2</b> Apply, explain, and evaluate strategies to estimate, compare, and compute fractions, decimals, and percents using a variety of methods (e.g., mental computation, technology, manipulatives) with and without context. (7.1, 7.2, 7.3, 7.7, 7.8, 7.9, 7.10)</p> <p><b>Geometry:</b> <b>Learning Target #3</b> Identify and contrast properties of polygons and polyhedra (e.g., sides, angles, symmetry, faces) and draw or describe relationships (e.g., congruency, regularity, similarity, decomposition, transformations) of figures from multiple perspectives. (7.4, 7.5)</p> <p><b>Measurement:</b> <b>Learning Target #6</b> Estimate and determine perimeter/circumference, area, distance, and elapsed time in real-world contexts and explain strategies. (7.6)</p> <p><b>Geometry:</b> <b>Learning Target #3</b> Identify and contrast properties of</p>	<p><b>Number Operations and Relationships:</b> <b>B.a.5</b> Demonstrate understanding of fractions and benchmark percents in problems and context. (7.7, 7.8, 7.9, 7.10) <b>B.a.6</b> Apply proportional reasoning to a variety of problem situations (e.g., comparisons and/or rates). (7.1, 7.2, 7.3) <b>B.a.7</b> Identify equivalent forms of fractions, decimals and percents. (7.8)</p> <p><b>Geometry:</b> <b>C.b.6</b> Draw and/or describe similar a similar figure when given a polygon drawn on graph paper with vertices at lattice points. (7.4, 7.5)</p> <p><b>Measurement:</b> <b>D.c.8</b> Determine the distance between points using a scale. (7.6)</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>Geometry:</b> <b>C.a.3</b> Classify shapes according to characteristics such as parallel and perpendicular lines; identify right, acute and</p>	<p><i>promoted by the MMP.</i></p> <p><b>Number Operation Relationships:</b> #5, 7, 8b, 15</p> <p><b>Geometry:</b> #12</p> <p><b>Measurement:</b> #9</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> #1, 7, 8, 11, 12, 13</p>
-----------------	--	---	--	---

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

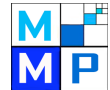
Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p><b>March</b></p>	<p><b>Chapter 9: Measurement and Geometry</b></p>	<p>polygons and polyhedra (e.g., sides, angles, symmetry, faces) and draw or describe relationships (e.g., congruency, regularity, similarity, decomposition, transformations) of figures from multiple perspectives.</p> <p><b>Measurement: Learning Target #5</b> Estimate and measure attributes of objects (including angles) and make unit conversions within and between customary and metric systems.</p> <p><b>Measurement: Learning Target #5</b> Estimate and measure attributes of objects (including angles) and make unit conversions within and between customary and metric systems.</p> <p><b>Measurement: Learning Target #6</b> Estimate and determine perimeter/circumference, area, distance, and elapsed time in real-world contexts and explain strategies.</p>	<p>obtuse angles with varied orientations. <b>(8.3, 8.4)</b></p> <p><b>C.a.4</b> Find the measure of the third angle of a triangle when given the measures of two interior angles. <b>(8.5)</b></p> <p><b>C.a.5</b> Decompose convex polygons into triangles using diagonals from a single vertex. <b>(8.7)</b></p> <p><b>C.b.7</b> Identify figures that are congruent and/or similar. <b>(8.9)</b></p> <p><b>C.b.9</b> Draw or identify the images of a figure based on one or more transformations (reflection, rotations, and/or translation). <b>(8.10)</b></p> <p><b>C.b.11</b> Draw or identify lines of symmetry. <b>(8.11)</b></p> <p><b>Measurement:</b></p> <p><b>D.b.5</b> Measure and/or draw angles up to 180 degrees. <b>(8.2)</b></p> <p><b>Mathematical Processes:</b></p> <p><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>Measurement:</b></p> <p><b>D.a.1</b> Select the appropriate unit of measure to estimate the length, liquid capacity, volume, weight/mass of everyday objects using U.S. customary and metric. <b>(9.1, 9.2,</b></p> <p><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>(9.3, 9.4)</b></p> <p><b>D.b.4</b> Determine and compare elapsed time in problem-solving situations. <b>(9.5,</b></p> <p><b>D.b.5</b> Measure and/or draw angles up to 180 degrees.</p>	<p><b>Measurement:</b> #2,4</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> #1,247, 8a, 8b</p>
---------------------	---	---	--	---

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p><b>March / April</b></p>	<p><b>Chapter 10: Measurement: Area and Volume</b></p>	<p><b>Measurement:</b> <b>Learning Target #6</b> Estimate and determine perimeter/circumference, area, distance, and elapsed time in real-world contexts and explain strategies.</p> <p><b>Geometry:</b> <b>Learning Target #3</b> Identify and contrast properties of polygons and polyhedra (e.g., sides, angles, symmetry, faces) and draw or describe relationships (e.g., congruency, regularity, similarity, decomposition, transformations) of figures from multiple perspectives.</p>	<p><b>(9.6,</b> <b>D.c.7</b> Determine perimeter/circumference and area of squares, rectangles, triangles, parallelograms, and circles in real-world context. <b>(9.7, 9.8</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 concepts.</i></p> <p><b>Measurement:</b> <b>D.c.6</b> Estimate area given a reference. <b>(10.1)</b> <b>D.c.7</b> Determine perimeter/circumference and area of squares, rectangles, triangles, parallelograms, and circles in real-world context. <b>(10.1, 10.2, 10.3, 10.4, 10.5, 10.9)</b></p> <p><b>Geometry:</b> <b>C.a.2</b> Determine the number of faces, edges, and vertices given an illustration of a 3-dimensional figure. <b>(10.6, 10.7)</b> <b>C.b.12</b> Identify and describe 3-dimensional figures from multiple perspectives. <b>(10.6, 10.7, 10.8)</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>Measurement:</b> #5a, 5b, 5c, 6, 9</p> <p><b>Geometry:</b> #5</p>
<p><b>April / May</b></p>	<p><b>Chapter 11: Integers, Graphs, and Functions</b></p>	<p><b>Geometry:</b> <b>Learning Target #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>Geometry:</b> <b>C.c.13</b> Identify, locate, plot coordinates in the four quadrants and transformations of points across the x- or y-</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> #13</p>

Lessons are aligned with MPS Learning Targets and Wisconsin State Framework Descriptor as indicated by (5.2) = Lesson 5.2.

Developed by the Milwaukee Mathematics Partnership with support by the National Science Foundation under Grant No. 0314898.



<p><b>May / June</b></p>	<p><b>Chapter 12: Probability</b></p>	<p>Use specifications to plot, construct, and transform points and shapes using the coordinate plane.</p> <p><b>Algebraic Relationships: Learning Target #9</b> Analyze, identify, and extend patterns and functional relationships in sequences, tables, and graphs, and describe graphs of real-world situations.</p> <p><b>Statistics and Probability: Learning Target #8</b> Gather and display data from experiments and analyze outcomes based on theoretical and experimental probabilities to determine likelihood and fairness of events and to solve problems.</p>	<p>axis. <b>(11.3)</b></p> <p><b>Algebraic Relationships:</b> <b>F.a.3</b> Describe and interpret linear patterns in tables and graphs. <b>(11.10)</b> <b>F.a.4</b> Identify the rule to complete or extend a function table or any combination of the two using one operation (+, -, x, /) and numbers (0 through 100) in the function table. <b>(11.9)</b> <b>F.b.7</b> Solve single-variable one-step equations and algebraic expressions with one variable and one operation and whole number coefficients with and without context. <b>(11.4, 11.5, 11.6, 11.7, 11.8)</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 concepts.</i></p> <p><b>Statistics and Probability:</b> <b>E.b.7</b> Determine the likelihood of an event and probability based on one independent event (e.g., spinning the arrow on a spinner). <b>(12.1, 12.5, 12.6)</b> <b>E.b.9</b> Describe the number of combinations of selecting 3 items from 4 or more items. <b>(12.3,</b> <b>E.b.12</b> Analyze outcomes based on an understanding of theoretical and experimental probability. <b>(12.2, 12.4)</b></p>	<p><b>Algebraic Relationships:</b> #1, 2, 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>Statistics and Probability:</b> #4, 5, 5a, 6, 7a, 7b, 7c, 7d, 8a, 8b, 8c, 9a, 9b, 9c, 9d</p>
--------------------------	---	--	---	--

