

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 1: Students can understand and apply a variety of math concepts.**  
**Grade:7th**

<b>Benchmark; The student will;</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can understand and apply number properties and operations.</b>	<ol style="list-style-type: none"> <li>1. Represent, compare, and order numbers</li> <li>2. Describe and apply properties of numbers</li> <li>3. Classify numbers by divisibility</li> <li>4. Demonstrate ways of performing operations</li> <li>5. Use place value; write numbers in standard, expanded, and exponential form</li> <li>6. Use and interpret operational and relational symbols</li> <li>7. Understand, apply, and be computationally fluent with multiplication and division of fractions and decimals.</li> <li>8. Understand, apply, and be computationally fluent with rational numbers, including negative numbers.</li> <li>9. Understand and apply ratio and rate, including</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	

	<p>percents, and connect ratio and rate to fractions and decimals.</p> <p><b>10.</b> Understand and apply proportional reasoning.</p> <p><b>11.</b> Understand, estimate, and represent real numbers, including common irrational numbers and with scientific notation.</p>			
<p><b><i>B) Students can understand and apply concepts and procedures of algebra.</i></b></p>	<p><b>1.</b> Solve equations and inequalities</p> <p><b>2.</b> Use variable expressions to model situations</p> <p><b>3.</b> Explore numerical patterns</p> <p><b>4.</b> Write, interpret, and use mathematical expressions and equations, find equivalent forms, and relate such symbolic representations to verbal, graphical, and tabular representations.</p> <p><b>5.</b> Understand and apply proportionality.</p> <p><b>6.</b> Understand, solve, and apply linear equations and inequalities.</p> <p><b>7.</b> Understand and apply linear functions.</p> <p><b>8.</b> Use tables and graphs to analyze systems of linear equations.</p>	<p>Teacher led discussion</p> <p>Group Discovery</p> <p>Group Discussion</p> <p>Calculator Usage</p>	<p>Homework</p> <p>Homework Quizzes</p> <p>Mid Chapter Quizzes</p> <p>Chapter Tests</p>	
<p><b><i>C) Students can understand and apply concepts of</i></b></p>	<p><b>1.</b> Identify, classify, and compare geometric figures</p> <p><b>2.</b> Describe geometric properties, patterns, and relationships</p>	<p>Teacher led discussion</p> <p>Group Discovery</p> <p>Group Discussion</p> <p>Calculator Usage</p>	<p>Homework</p> <p>Homework Quizzes</p> <p>Mid Chapter Quizzes</p> <p>Chapter Tests</p>	

<b>geometry.</b>	<ol style="list-style-type: none"> <li>3. Apply the concepts of perimeter, area, and volume</li> <li>4. Understand, determine, and apply area of polygons.</li> <li>5. Understand and apply similarity, with connections to proportion.</li> <li>6. Understand, determine, and apply surface area and volume of prisms and cylinders and circumference and area of circles.</li> </ol>			
<b>D) Students can understand and apply concepts of measurement.</b>	<ol style="list-style-type: none"> <li>1. Measure length/distance, time, temperature, weight, mass, and volume</li> <li>2. Estimate measurements with appropriate precision</li> <li>3. Identify and use appropriate units of measurement</li> </ol>	<p>Teacher led discussion  Group Discovery  Group Discussion  Calculator Usage</p>	<p>Homework  Homework Quizzes  Mid Chapter Quizzes  Chapter Tests</p>	
<b>E) Students can understand and apply concepts in probability and statistics.</b>	<ol style="list-style-type: none"> <li>1. Apply probability concepts and counting rules</li> <li>2. Understand and apply measures of central tendency and variability</li> <li>3. Understand, interpret, determine, and apply measures of center and graphical representations of data.</li> <li>4. Understand and represent simple probabilistic situations.</li> <li>5. Use proportions and percentages to analyze data and chance.</li> </ol>	<p>Teacher led discussion  Group Discovery  Group Discussion  Calculator Usage</p>	<p>Homework  Homework Quizzes  Mid Chapter Quizzes  Chapter Tests</p>	

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 2: Students can understand and apply methods of estimation.**  
**Grade: 7th**

<b>Benchmark: The students will:</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can understand and apply concepts and procedures of standard rounding, order of magnitude, and number sense.</b>	<ol style="list-style-type: none"> <li><b>1.</b> Use standard rounding to estimate</li> <li><b>2.</b> Use order of magnitude to estimate</li> <li><b>3.</b> Use number sense to estimate</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 3: Students can solve a variety of math problems.**  
**Grade:7th**

<b>Benchmark: The student will:</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can solve math problems.</b>	<ol style="list-style-type: none"> <li><b>1.</b> Solve single-step and multiple-step math problems</li> <li><b>2.</b> Identify extraneous or insufficient information in problems</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	
<b>B) Students can understand and apply problem-solving approaches and procedures.</b>	<ol style="list-style-type: none"> <li><b>1.</b> Choose a method for solving a problem</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 4: Students can interpret data presented in a variety of ways.**  
**Grade:7th**

<b>Benchmark: The student will:</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can use tables and graphs to locate and read information.</b>	<ol style="list-style-type: none"> <li>1. Locate amounts in specific cells of a table</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	
<b>B) Students can interpret data from a variety of sources</b>	<ol style="list-style-type: none"> <li>1. Read amounts on scales of bar and line graphs</li> <li>2. Compare quantities to determine ranks, sums, or differences and to find ratios</li> <li>3. Use tables and graphs to determine rates or identify trends, understand underlying or functional relationships, and generalize or draw conclusions</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid Chapter Quizzes Chapter Tests	

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 1: Students can understand and apply a variety of math concepts.**  
**Grade: 8th**

<b>Benchmark; The student will;</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can understand and apply number properties and operations.</b>	<ol style="list-style-type: none"> <li>1. Represent, compare, and order numbers</li> <li>2. Describe and apply properties of numbers</li> <li>3. Classify numbers by divisibility</li> <li>4. Demonstrate ways of performing operations</li> <li>5. Use place value; write numbers in standard, expanded, and exponential form</li> <li>6. Use and interpret operational and relational symbols</li> <li>7. Understand, apply, and be computationally fluent with multiplication and division of fractions and decimals.</li> <li>8. Understand, apply, and be computationally fluent with rational numbers, including negative numbers.</li> <li>9. Understand and apply ratio and rate, including percents, and connect ratio and rate to fractions and decimals.</li> <li>10. Understand and apply</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests	

	<p>proportional reasoning.</p> <p><b>11.</b> Understand, estimate, and represent real numbers, including common irrational numbers and with scientific notation.</p>			
<p><b><i>B) Students can understand and apply concepts and procedures of algebra.</i></b></p>	<p><b>1.</b> Solve equations and inequalities</p> <p><b>2.</b> Use variable expressions to model situations</p> <p><b>3.</b> Explore numerical patterns</p> <p><b>4.</b> Write, interpret, and use mathematical expressions and equations, find equivalent forms, and relate such symbolic representations to verbal, graphical, and tabular representations.</p> <p><b>5.</b> Understand and apply proportionality.</p> <p><b>6.</b> Understand, solve, and apply linear equations and inequalities.</p> <p><b>7.</b> Understand and apply linear functions.</p> <p><b>8.</b> Use tables and graphs to analyze systems of linear equations.</p>	<p>Teacher led discussion</p> <p>Group Discovery</p> <p>Group Discussion</p> <p>Calculator Usage</p>	<p>Homework</p> <p>Homework Quizzes</p> <p>Mid-Chapter Quizzes</p> <p>Chapter Tests</p>	
<p><b><i>C) Students can understand and apply concepts of geometry.</i></b></p>	<p><b>1.</b> Identify, classify, and compare geometric figures</p> <p><b>2.</b> Describe geometric properties, patterns, and relationships</p> <p><b>3.</b> Apply the concepts of perimeter, area, and volume</p> <p><b>4.</b> Understand, determine, and apply area of polygons.</p> <p><b>5.</b> Understand and apply similarity, with connections to proportion.</p> <p><b>6.</b> Understand, determine, and apply surface area and volume of prisms and cylinders and</p>	<p>Teacher led discussion</p> <p>Group Discovery</p> <p>Group Discussion</p> <p>Calculator Usage</p>	<p>Homework</p> <p>Homework Quizzes</p> <p>Mid-Chapter Quizzes</p> <p>Chapter Tests</p>	

	<p>circumference and area of circles</p> <ol style="list-style-type: none"> <li>7. Analyze two-dimensional space and figures by using distance, angle, coordinates, and transformations.</li> <li>8. Visualize, represent, and describe three-dimensional shapes.</li> </ol>			
<b>D) Students can understand and apply concepts of measurement .</b>	<ol style="list-style-type: none"> <li>1. Measure length/distance, time, temperature, weight, mass, and volume</li> <li>2. Estimate measurements with appropriate precision</li> <li>3. Identify and use appropriate units of measurement</li> </ol>	<p>Teacher led discussion Group Discovery Group Discussion Calculator Usage</p>	<p>Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests</p>	
<b>E) Students can understand and apply concepts in probability and statistics.</b>	<ol style="list-style-type: none"> <li>1. Apply probability concepts and counting rules</li> <li>2. Understand and apply measures of central tendency and variability</li> <li>3. Understand, interpret, determine, and apply measures of center and graphical representations of data.</li> <li>4. Understand and represent simple probabilistic situations.</li> <li>5. Use proportions and percentages to analyze data and chance.</li> <li>6. Analyze and summarize data sets, including initial analysis of variability.</li> <li>7. Understand, compute, and estimate simple probabilities using counting strategies and simulation.</li> </ol>	<p>Teacher led discussion Group Discovery Group Discussion Calculator Usage</p>	<p>Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests</p>	

# **Martensdale-St. Marys Community School**

## **Math Curriculum**

**Standard 2: Students can understand and apply methods of estimation.**

**Grade: 8th**

<b>Benchmark: The students will:</b>	<b>Grade Level Objectives</b>	<b>Instructional Strategies</b>	<b>Assessments</b>	<b>Instructional Timeline</b>
<b>A) Students can understand and apply concepts and procedures of standard rounding, order of magnitude, and number sense.</b>	<ol style="list-style-type: none"> <li>1. Use standard rounding to estimate</li> <li>2. Use order of magnitude to estimate</li> <li>3. Use number sense to estimate</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests	

# ***Martensdale-St. Marys Community School Math Curriculum***

***Standard 3: Students can solve a variety of math problems.  
Grade: 8th***

<b><i>Benchmark: The student will:</i></b>	<b><i>Grade Level Objectives</i></b>	<b><i>Instructional Strategies</i></b>	<b><i>Assessments</i></b>	<b><i>Instructional Timeline</i></b>
<b><i>A) Students can solve math problems.</i></b>	<ol style="list-style-type: none"> <li>1. Solve single-step and multiple-step math problems</li> <li>2. Identify extraneous or insufficient information in problems</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests	
<b><i>B) Students can understand and apply problem-solving approaches and procedures.</i></b>	<ol style="list-style-type: none"> <li>1. Choose a method for solving a problem</li> </ol>	Teacher led discussion Group Discovery Group Discussion Calculator Usage	Homework Homework Quizzes Mid-Chapter Quizzes Chapter Tests	

