


## Grade 7 Advanced Math

Teacher: LeAnn Wimmer, Dennis Kucera, Sandy Rousslang, Kendyll Barten, Megan Waldbillig


September 2022

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<b>CEQ:</b> <ul style="list-style-type: none"> <li><b>HOW ARE NUMBER SENSE AND MATHEMATICAL OPERATIONS APPLIED IN PRE-ALGEBRA?</b></li> <li><b>HOW ARE ALGEBRAIC EQUATIONS SOLVED AND LINEAR RELATIONSHIPS GRAPHED?</b></li> <li><b>HOW ARE FORMULAS USED TO MEASURE SURFACE AREA AND VOLUME OF GEOMETRIC FIGURES WITH CUSTOMARY</b></li> </ul>	<b>Chapter 1: Algebraic Expressions</b> <p><b>A. Variable and expressions</b></p> <p>A1. Identify and write numerical and variable expressions</p> <p>A2. Evaluate variable expressions</p> <p>A3. Solve problems by evaluating expressions</p> <p><b>B. Order of operations</b></p> <p>B1. Apply the order of operations</p>	<b>Chapter 1: Algebraic Expressions</b> <p><b>Learning Target #1:</b></p> <p>I can identify, write, and evaluate numerical and variable expressions. (7.2.3.1)</p> <p><b>Learning Target #2:</b></p> <p>I can perform the order of operations using integers. (7.2.3.3)</p> <p><b>Learning Target #3:</b></p> <p>I can represent, graph, and order integers. I can determine absolute value. (7.1.2.6, 7.1.1.5, 7.1.1.4)</p> <p><b>Learning Target #4:</b></p>	<b>Chapter 1: Algebraic Expressions</b> <p>A. Variables and expressions</p> <p>B. Order of operations</p> <p>C. Integers and absolute value</p> <p><b>CFA: Quiz on A - C</b></p> <p><b>CSA: Chapter 1 TEST on A - E</b></p>	<b>Chapter 1: Algebraic Expressions</b> <p>Prentice Hall Mathematics: Algebra Readiness</p> <p>Unit Assessments:</p> <p><a href="S:\Middle School\7th Grade\Math Stuff">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>absolute value</li> <li>expressions (numerical and variable)</li> <li>evaluate</li> <li>integers</li> <li>inverse operations</li> <li>order of operations</li> <li>variable</li> </ul>

<p><b>AND METRIC SYSTEMS?</b></p> <ul style="list-style-type: none"> <li><b>HOW ARE VARIOUS GRAPHS AND MEASURES OF CENTRAL TENDENCY USED TO MODEL DATA?</b></li> </ul> <p><b>UEQ: Chapter 1 Algebraic Expressions</b></p>  <ul style="list-style-type: none"> <li><i>How can I use variables and operations to write an expression?</i></li> <li><i>How are integers used to perform operations?</i></li> <li><i>What is the meaning of absolute value and how can I determine it's value?</i></li> </ul>	<p><b>C. Integers and absolute value</b></p> <p>C1. Determine absolute value</p> <p>C2. Represent and order integers</p> <p><b>D. Operations with integers</b></p> <p>D1. Apply rules and use models to add, subtract, multiply, and divide integers</p> <p><b>E. Coordinate plane</b></p> <p>E1. Identify coordinates and quadrants</p> <p>E2. Graph ordered pairs</p>	<p>I can identify the parts of a coordinate plane and graph ordered pairs. (7.1.1.3)</p>		
--	---	--	--	--

<ul style="list-style-type: none"> <li>• <i>How are points graphed in a coordinate plane?</i></li> </ul>				
--	--	--	--	--


October				
Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
UEQ: Chapter 2 Solving One-Step Equations and Inequalities	Chapter 2: Solving One-Step Equations and Inequalities	Chapter 2: Solving One-Step Equations and Inequalities	Chapter 2: Solving One-Step Equations and Inequalities	Chapter 2: Solving One-Step Equations and Inequalities

 <ul style="list-style-type: none"> <li>• <i>How are the properties of numbers(identity, inverse, distributive, associative, and commutative) applied?</i></li> <li>• <i>How are equations written and solved?</i></li> <li>• <i>How are inequalities written, solved, and graphed?</i></li> </ul>	<p><b>A. Properties of Numbers</b></p> <p><b>A1. Identify and use properties</b></p> <p><b>A2. Apply the distributive property to numerical and algebraic expressions</b></p> <p><b>B. Variables, Variable Expressions, and Equations</b></p> <p><b>B1. Identify parts of and simplify variable expressions</b></p> <p><b>B2. Classify types of equations</b></p> <p><b>B3. Check equations using substitution</b></p> <p><b>C. Solving Equations Using Operations</b></p> <p><b>C1. Use operations to solve equations</b></p>	<p><b>(7.2.2.4)</b></p> <p><b>Learning Target #1:</b></p> <p><b>I can identify and apply the properties of numbers (commutative, associative, identity, and distributive) (7.2.3.1)</b></p> <p><b>Learning Target #2:</b></p> <p><b>I can classify and solve one-step equations using inverse operations. (7.2.4.1)</b></p> <p><b>Learning Target #3:</b></p> <p><b>I can solve and graph one-step inequalities using inverse operations. (7.2.2.4)</b></p>	<p><b>A. Properties of Numbers</b></p> <p><b>B. Variables, Variable Expressions, and Equations</b></p> <p><b>CFA: QUIZ on A - B1</b></p> <p><b>C. Solving Equations Using Operations</b></p> <p><b>D. Solving One-Step Inequalities Using Operations</b></p> <p><b>CFA: QUIZ on B2 - D1</b></p> <p><b>CSA: Chapter 2 Test</b></p>	<p><b>Prentice Hall Mathematics: Algebra Readiness</b></p> <p><b>Unit Tests</b></p> <p><a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• Commutative Property</li> <li>• Associative Property</li> <li>• Identity Property</li> <li>• Distributive Property</li> <li>• Coefficient</li> <li>• Constant</li> <li>• Like Terms</li> <li>• Inverse Operations</li> <li>• Equation</li> <li>• Inequality</li> <li>• Solution</li> </ul>
---	--	---	---	--

	<b>D. Solving One-Step Inequalities Using Operations</b>  <b>D1. Graph inequalities</b>  <b>D2. Use operations to solve inequalities</b>			
--	--	--	--	--


November

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
---------	--------	--	------------	------------------------

<p><b>UEQ: Chapter 3</b> <b>Decimals and Equations</b></p>  <ul style="list-style-type: none"> <li>• <i>How can decimals be used to estimate and solve equations?</i></li> <li>• <i>How do you convert metric units of measure?</i></li> </ul>	<p><b>Chapter 3: Decimals and Equations</b></p> <p><b>A. Rounding and Estimating</b></p> <p>A1. Round Decimals</p> <p>A2. Estimate sums, differences, products, and quotients</p> <p>***Review All Decimal Operations</p> <p><b>B. Solving One-Step Equations Involving Decimals</b></p> <p>B1. Use the four operations to solve equations</p> <p><b>C. Formulas</b></p> <p>C1. Substitute into formulas</p> <p><b>D. Using Metric System</b></p> <p>D1. Convert Metric Units</p>	<p><b>Chapter 3: Decimals and Equations (7.1.2.1)</b></p> <p><b>Learning Target #1:</b></p> <p>I can round and estimate with decimals. (7.1.2.1)</p> <p><b>Learning Target #2:</b></p> <p>I can solve one-step equations that have decimals in them. (7.2.4.1)</p> <p><b>Learning Target #3:</b></p> <p>I can substitute into and evaluate formulas. (7.2.3.2)</p> <p><b>Learning Target #4:</b></p> <p>I can convert metric units of measurement. (7.2.2.2)</p>	<p><b>Chapter 3: Decimals and Equations</b></p> <p>A. Rounding and Estimating</p> <p>B. Solving One-Step Equations Involving Decimals</p> <p><b>CFA: QUIZ</b> on A-B</p> <p><b>CSA: Chapter 3 Test</b></p>	<p><b>Chapter 3: Decimals and Equations</b></p> <p>Prentice Hall Mathematics: Algebra Readiness</p> <p>Unit Tests <a href="S:\Middle School\7th Grade\Math Stuff">S:\Middle School\7th Grade\Math Stuff</a></p> <p>Joe Decimal Movie Clips <a href="S:\Middle School\7th Grade\Math Stuff">S:\Middle School\7th Grade\Math Stuff</a></p> <p>You Tube Video The Rappin' Mathematician Decimals <a href="http://www.youtube.com/watch?v...">http://www.youtube.com/watch?v...</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• Compatible Numbers</li> <li>• Formula</li> </ul>
---	---	--	--	---

	D2. Identify Appropriate Metric Units			
--	---------------------------------------	--	--	--

## December


Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<b>UEQ: Chapter 4 Factors, Fractions, and Exponents</b>  <ul style="list-style-type: none"> <li>How are expressions simplified using exponents?</li> <li>How can fractions be simplified?</li> <li>How can scientific notation be written and calculated?</li> <li>How can problems be solved by first</li> </ul>	<b>Chapter 4: Factors, Fractions, and Exponents</b>  <b>A. Divisibility and Factors</b> A1. Use divisibility tests A2. Find factors  <b>B. Exponents</b> B1. Use exponents B2. Apply the Order of Operations with exponents  <b>C. Prime Factorization and Greatest Common Factor</b> C1. Find prime	<b>Chapter 4: Factors, Fractions, and Exponents</b>  <b>Learning Target #1:</b> <b>I can find factors using divisibility tests and prime factorization. (7.1.1.5)</b>  <b>Learning Target #2:</b> <b>I can simplify expressions with exponents. (7.1.2.1, 7.2.3.1)</b>	<b>Chapter 4: Factors, Fractions, and Exponents</b>  <b>A. Divisibility and Factors</b> B. Exponents C. Prime Factorization and Greatest Common Factor D. Fractions  <b>CFA: QUIZ on A - D</b>  E. Rational Numbers F. Exponents with Multiplication and Division	<b>Chapter 4: Factors, Fractions, and Exponents</b>  <b>Prentice Hall Mathematics: Algebra Readiness</b>  <b>Unit Tests</b> <a href="#">S:\Middle School\7th Grade\Math Stuff</a>  <b>Key Vocabulary:</b> <ul style="list-style-type: none"> <li><b>Prime</b></li> <li><b>Composite</b></li> <li><b>Factor</b></li> </ul>

<i>solving a simpler problem?</i>	<p><b>factorization</b>  <b>C2. Determine greatest common factor</b></p> <p><b>D. Fractions</b>  <b>D1. Calculate equivalent fractions</b>  <b>D2. Simplify fractions</b></p> <p><b>E. Rational Numbers</b>  <b>E1. Identify rational numbers</b>  <b>E2. Evaluate fractions containing variables</b></p> <p><b>F. Exponents with Multiplication and Division</b>  <b>F1. Multiply powers with the same base</b>  <b>F2. Find a power of a power</b>  <b>F3. Divide powers with the same base</b>  <b>F4. Simplify expressions with integer exponents</b></p> <p><b>G. Scientific Notation</b>  <b>G1. Write, calculate, and evaluate scientific notation</b></p>	<p><b>Learning Target #3:</b>  <b>I can simplify fractions with numbers and variables. (7.1.1.5)</b></p> <p><b>Learning Target #4:</b>  <b>I can identify and evaluate expressions using rational numbers. (7.2.3.2)</b></p> <p><b>Learning Target #5:</b>  <b>I can write numbers in standard and scientific notation.</b></p>	<p><b>CFA: QUIZ on E - F</b></p> <p><b>G. Scientific Notation</b></p> <p><b>CSA= Chapter 4 Unit Test</b></p>	<ul style="list-style-type: none"> <li>● <b>Divisible</b></li> <li>● <b>Exponents</b></li> <li>● <b>Rational Number</b></li> <li>● <b>Scientific Notation</b></li> <li>● <b>Prime Factorization</b></li> <li>● <b>Greatest Common Factor (GCF)</b></li> </ul>
-----------------------------------	---	---	--	---




--	--	--	--	--

## January

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
UEQ: Chapter 5 Operations with Fractions  <ul style="list-style-type: none"> <li>How are operations performed with fractions?</li> <li>How are fractions used to solve equations?</li> <li>How are powers of products and quotients found?</li> </ul>	<b>Chapter 5: Operations with Fractions</b>  <b>A. Rational Numbers</b> <b>A1. Compare and Order</b>  <b>B. Fractions and Decimals</b> <b>B1. Convert fractions to decimals</b> <b>B2. Convert decimals to fractions</b>  <b>C. Operations with Fractions</b> <b>C1. Add</b> <b>C2. Subtract</b>	<b>Chapter 5: Operations with Fractions (7.1.2.1)</b>  <b>Learning Target #1:</b>  <b>I can convert, order, and graph fractions and decimals. (7.1.1.1, 7.1.1.5, 7.1.1.2)</b>  <b>Learning Target #2:</b>  <b>I can add, subtract, multiply, and divide fractions. (7.1.2.1)</b>	<b>Chapter 5: Operations with Fractions</b>  <b>A. Rational Numbers</b> <b>B. Fractions and Decimals</b> <b>C. Operations with Fractions</b> <b>C1. Add</b> <b>C2. Subtract</b>  <b>E. One-Step Equations</b> <b>E1. Solve equations by adding or subtracting fractions</b>  <b>CFA: Quiz on A - C2 and</b>	<b>Chapter 5: Operations with Fractions</b>  <b>Prentice Hall Mathematics: Algebra Readiness</b>  <b>Unit Tests</b> <a href="#">S:\Middle School\7th Grade\Math Stuff</a>  <b>Learning Target Examples:</b>  <a href="#">S:\Middle School\7th Grade\Math Stuff</a>

	<p><b>E. One-Step Equations</b>  <b>E1. Solve equations by adding or subtracting fractions</b></p> <p><b>C. Operations with Fractions</b>  <b>C3. Multiply</b>  <b>C4. Divide</b></p> <p><b>E. One-Step Equations</b>  <b>E2. Solve equations by multiplying fractions</b></p> <p><b>D. Customary Units of Measure</b>  <b>D1. Convert between customary units</b>  <b>D2. Apply dimensional analysis</b></p> <p><b>F. Powers of Products and Quotients</b>  <b>F1. Find powers of products</b>  <b>F2. Find powers of quotients</b></p>	<p><b>Learning Target #3:</b></p> <p><b>I can solve equations by adding, subtracting, multiplying, and dividing fractions. (7.2.4.1)</b></p> <p><b>Learning Target #4:</b></p> <p><b>I can find powers of products and quotients. (7.2.3.2)</b></p>	<p><b>E1</b></p> <p><b>C. Operations with Fractions</b>  <b>C3. Multiply</b>  <b>C4. Divide</b></p> <p><b>E. One-Step Equations</b>  <b>E2. Solve equations by multiplying fractions</b></p> <p><b>D. Customary Units of Measure</b>  <b>D1. Convert between customary units</b>  <b>D2. Apply dimensional analysis</b></p> <p><b>CFA: Quiz on C3 - D and E2</b></p> <p><b>F. Powers of Products and Quotients</b></p> <p><b>CSA: Test on Chapter 5</b></p>	<p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• <b>Multiple</b></li> <li>• <b>Least Common Multiple (LCM)</b></li> <li>• <b>Reciprocal</b></li> <li>• <b>Repeating Decimal</b></li> <li>• <b>Terminating Decimal</b></li> </ul>
--	--	---	---	--


	<p><b>Chapter 6: Ratios, Proportions, and Percents</b></p> <p><b>A. Ratios and Unit Rates</b>  <b>A1. Determine ratios</b>  <b>A2. Solve unit rates</b></p> <p><b>B. Proportions</b>  <b>B1. Solve proportions</b>  <b>B2. Apply proportions to problem solving</b></p> <p><b>C. Similar Figures and Scale Drawings</b>  <b>C1. Determine unknowns in similar figures</b>  <b>C2. Determine unknowns in scale drawings</b></p>		<p><b>Chapter 6: Ratios, Proportions, and Percents</b></p> <p><b>A. Ratios and Unit Rates</b>  <b>B. Proportions</b>  <b>C. Similar Figures and Scale Drawings</b></p> <p><b>CFA: Quiz on A - C</b></p> <p><b>D. Fractions, Decimals, and Percents</b>  <b>E. Percents with Proportions and Equations</b>  <b>F. Percent of Change</b></p>	<p><b>Chapter 6: Ratios, Proportions, and Percents</b></p> <p><b>Prentice Hall Mathematics: Algebra Readiness</b></p> <p><b>Unit Tests</b>  <a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Percent of Decrease</b>  <b>Biggest Loser You Tube</b></p>
--	--	--	--	--

<p>UEQ: Chapter 6</p> <p>Ratios, Proportions, and Percents </p> <p><i>How are percents used and found?</i></p>	<p><b>D. Fractions, Decimals, and Percents</b>  <b>D1. Write percents as fractions and decimals</b>  <b>D2. Write decimals as fractions and percents</b>  <b>D3. Order rational numbers</b></p> <p><b>E. Percents with Proportions and Equations</b>  <b>E1. Find parts, wholes, and percents with proportions</b>  <b>E2. Find parts, wholes, and percents with equations</b></p> <p><b>F. Percent of Change</b>  <b>F1. Determine percent of increase</b>  <b>F2. Determine percent of decrease</b></p> <p><b>G. Markup and Discount</b>  <b>G1. Calculate markup</b>  <b>G2. Calculate discount</b></p>	<p>Chapter 6: Ratios, Proportions, and Percents</p> <p><b>Learning Target #1:</b></p> <p><b>I can write and simplify ratios and rates. (7.2.2.1)</b></p> <p><b>Learning Target #2:</b></p> <p><b>I can write and solve proportions like these: (7.1.2.5)</b></p> <p><b>Learning Target #3:</b></p> <p><b>I can find probability and odds. For example, I can solve problems like these: What is the probability of rolling a 2 on a number cube (die)? What are the odds in favor of rolling a number less than 3 on a number cube (die)?</b></p> <p><b>Learning Target #4:</b></p>	<p><b>CFA: Quiz on D - F</b></p> <p><b>G. Markup and Discount</b></p> <p><b>CSA: Chapter 6 Test</b></p>	<p>clip  <a href="http://www.youtube.com/watch?v=FxFynAO6I6w&amp;feature=related">http://www.youtube.com/watch?v=FxFynAO6I6w&amp;feature=related</a></p> <p><a href="http://www.youtube.com/watch?v=LdyK9121NQo&amp;feature=related">http://www.youtube.com/watch?v=LdyK9121NQo&amp;feature=related</a></p> <p><b>Learning Target Examples:</b></p> <p><a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• Ratios</li> <li>• Unit Rates</li> <li>• Percent</li> <li>• Proportion</li> <li>• Markup</li> <li>• Discount</li> <li>• Commission</li> <li>• Scale Drawing</li> <li>• Similar Figure</li> </ul>
---	--	---	---	---

		<p><b>I can convert between and order fractions, decimals, and percents. (7.2.2.4)</b></p> <p><b>Learning Target #4:</b></p> <p><b>I can solve equations representing proportional relationships. (7.2.4.2)</b></p> <p><b>Learning Target #5:</b></p> <p><b>I can solve percent problems in various contexts (7.2.2.2)</b></p> <p><b>Learning Target #6:</b></p> <p><b>I can use properties of similar figures to find side lengths of similar figures. (7.3.2.1, 7.2.2.3, 7.3.2.2)</b></p>		<ul style="list-style-type: none"> <li>• <b>Percent of Change</b></li> </ul>
--	--	---	--	--

--	--	--	--	--


## February

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<b>UEQ: Chapter 7 Solving Equations and Inequalities</b>  <ul style="list-style-type: none"> <li>How are multi-step equations written and solved?</li> </ul> <p>How are two-step inequalities written and solved?</p> <p>How are simple and compound interest calculated?</p>	<b>Chapter 7: Solving Equations and Inequalities</b> <p><b>A. Multi-Step Equations</b>  <b>A1. Use properties to solve multi-step equations</b>  <b>A2. Combine like terms</b>  <b>A3. Apply the distributive property</b>  <b>A4. Solve multi-step equations with fractions and decimals</b>  <b>A5. Apply the writing equations problem solving strategy</b></p> <p><b>B. Equations with Variables on Both Sides</b>  <b>B1. Solve equations</b>  <b>B2. Use equations</b></p> <p><b>C. Two-Step Inequalities</b></p>	<b>Chapter 7: Solving Equations and Inequalities</b> <p><b>Learning Target #1:</b>  I can write and solve multi-step equations like these:  <math>4(m-7) + 5m = 6m + 2</math> (7.2.4.1)</p> <p><b>Learning Target #2:</b>  I can write and solve two-step inequalities like these:  <math>6a + 3 &gt; 27</math> (7.2.2.4)</p> <p><b>Learning Target #3:</b>  I can calculate simple and compound interest.  (7.1.2.3, .7.1.2.4)</p>	<b>Chapter 7: Solving Equations and Inequalities</b> <p><b>A. Multi-Step Equations</b>  <b>CFA: Quiz on A</b></p> <p><b>B. Equations with Variables on Both Sides</b>  <b>C. Two-Step Inequalities</b>  <b>D. Transforming Formulas</b>  <b>CFA: Quiz on B - D</b></p> <p><b>E. Simple and Compound Interest</b>  <b>CSA: Chapter 7 Test</b></p>	<b>Chapter 7: Solving Equations and Inequalities</b> <p><b>Prentice Hall Mathematics: Algebra Readiness</b></p> <p><b>Unit Tests</b>  <a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>Interest</li> <li>Simple Interest</li> <li>Compound Interest</li> <li>Interest Rate</li> <li>Principal</li> </ul>

	<b>C1. Solve inequalities</b> <b>C2. Use inequalities</b>			
	<b>D. Transforming Formulas</b> <b>D1. Solve formulas</b> <b>D2. Use formulas</b>			
	<b>E. Simple and Compound Interest</b> <b>E1. Solve simple-interest</b> <b>E2. Solve compound-interest</b>			

--	--	--	--	--

March



Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<p><b>UEQ: Chapter 8 Linear Functions and Graphing</b> </p> <ul style="list-style-type: none"> <li>• <i>When is a relation a function?</i></li> <li>• <i>How are linear equations and inequalities solved?</i></li> <li>• <i>How are systems of linear equations and inequalities solved?</i></li> <li>• <i>How is a problem solved by graphing?</i></li> </ul> <p><b>A. Relations and Functions</b> <b>B. Equations with Two Variables</b></p>	<p><b>Chapter 8 Linear Functions and Graphing</b></p> <p><i>Skip Lesson 8-1 (Incorporate the Vertical Line Test from this lesson in Lessons 2 and 3)</i></p> <p><b>B. Equations with Two Variables</b> <b>B1. Solve two-variable equations</b> <b>B2. Graph two-variable equations</b></p> <p><b>C. Slope and Y-Intercept</b> <b>C1. Determine slope and y-intercept</b> <b>C2. Use slope and y-intercept to graph linear equations</b></p>	<p><b>Chapter 8 Linear Functions and Graphing</b></p> <p>Learning Target #1:</p> <p>I can write, graph, and identify the parts of linear equations like these:</p> $y = 2x - 3 + 7 \quad \text{or} \quad y = -2x + 7 \quad (7.2.2.1)$ <p>Learning Target #2:</p> <p>I can use the slope-intercept form of linear equations/graphs/tables.</p>	<p><b>Chapter 8 Linear Functions and Graphing</b></p> <p><b>A. Vertical Line Test</b> <b>B. Equations with Two Variables</b> <b>C. Slope and Y-Intercept</b> <b>D. Rules for Linear Functions</b></p> <p><b>A-D. Summative Quiz #1 - short answer (CSA)</b></p> <p><b>F. Systems of Linear Equations</b></p> <p><b>G. Systems of Linear Inequalities</b></p> <p><b>F - G. Summative Quiz #2 - short answer (CSA)</b></p>	<p><b>Chapter 8 Linear Functions and Graphing</b></p> <p><b>Prentice Hall Mathematics: Algebra Readiness</b></p> <p><b>Unit Tests</b> <a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• <b>Function</b></li> <li>• <b>Linear Equation</b></li> <li>• <b>Linear Inequality</b></li> <li>• <b>Slope</b></li> <li>• <b>Y-Intercept</b></li> </ul>



<p><b>C. Slope and Y-Intercept</b>  <b>D. Rules for Linear Functions</b>  <b>E. Scatter Plots</b>  <b>F. Systems of Linear Equations</b>  <b>G. Systems of Linear Inequalities</b></p>	<p><b>D. Rules for Linear Functions</b>  <i>(SKIP Example 1 from Lesson 8-4 for Regular Classes)</i>  <b>D2. Write rules from tables and graphs</b></p> <p><b>F. Systems of Linear Equations</b>  <b>F1. Graph systems of linear equations</b>  <b>F2. Use systems of linear equations</b></p> <p><b>G. Systems of Linear Inequalities</b>  <b>G1. Graph linear inequalities</b>  <b>G2. Graph systems of linear inequalities</b></p> <p><i>***After Chapter 8: Teach Lesson 12-1 on Histograms and Complete the Stem and Leaf Plot Activity Lab from page 646 before moving on to Chapter 9</i></p>	<p><math>y = mx + b</math> (7.2.2.1)</p> <p><b>Learning Target #3:</b></p> <p>I can solve and graph systems of linear equations like these:</p> <p><math>y = x + 5</math>; <math>y = -2x + 8</math></p> <p>(7.2.2.1)</p> <p><b>Learning Target #4:</b></p> <p>I can solve and graph systems of linear inequalities like these:</p> <p><math>y &lt; -x + 1</math>; <math>y &gt; 2x - 5</math></p> <p><b>Learning Target #5:</b></p> <p>I can identify if a linear relationship is proportional in a graph/table/equation.</p> <p>(7.2.1.1, .7.2.1.2)</p>	<ul style="list-style-type: none"> <li>● <b>Slope - Intercept Form</b></li> <li>● <b>Constant of Variation</b></li> <li>● <b>Direct Variation</b></li> </ul>
--	--	---	--



	<i>(Only formative assessments used for these two lessons)</i>			
--	--	--	--	--

April

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<p><b>UEQ: Chapter 9:</b> <b>Spatial Thinking</b> </p> <p></p> <ul style="list-style-type: none"> <li>• <i>How are properties of figures used to solve problems?</i></li> <li>• <i>How are geometric figures classified?</i></li> <li>• <i>How can drawing a diagram help to solve a problem?</i></li> </ul> <p><b>A. Points, Lines, and Planes</b>  <b>B. Angles and Parallel Lines</b>  <b>C. Polygons</b>  <b>D. Congruence</b>  <b>E. Circles</b>  <b>F. Translations</b>  <b>G. Symmetry and</b></p>	<p><b>Chapter 9: Spatial Thinking</b></p> <p><b>D. Congruence</b>  D1. Identify corresponding parts  D2. Identify congruent triangles</p> <p><b>E. Circles</b>  E1. Find circumference  E2. Construct circle graphs</p> <p><b>F. Translations</b>  F1. Graph translations  F2. Describe translations</p> <p><b>G. Symmetry and Reflections</b>  G1. Identify lines of</p>	<p><b>Chapter 9: Spatial Thinking</b></p> <p>Learning Target #1:</p> <p>I can identify the congruent parts of triangles. (7.3.2.1)</p> <p><b>Learning Target #2:</b></p> <p>I can find the circumference of a circle. (7.3.1.1)</p> <p>I can make a circle graph using central angles. (7.4.2.1)</p> <p><b>Learning Target #3:</b></p>	<p><b>Chapter 9: Spatial Thinking</b></p> <p><b>D. Congruence</b>  <b>E. Circles</b>  <b>F. Translations</b>  <b>G. Symmetry and Reflections</b>  <b>H. Rotations</b></p> <p><b>CA= Chapter 9, Lessons 5-6, and 8-10 Summative QUIZ -short answer (CSA)</b></p>	<p><b>Chapter 9: Spatial Thinking</b></p> <p><b>Prentice Hall Mathematics: Algebra Readiness</b></p> <p><b>Unit Tests</b>  <a href="#">S:\Middle School\7th Grade\Math Stuff</a></p> <p><b>Key Vocabulary:</b></p> <ul style="list-style-type: none"> <li>• <b>Congruence</b></li> <li>• <b>Circumference</b></li> <li>• <b>Radius</b></li> <li>• <b>Diameter</b></li> <li>• <b>Symmetry</b></li> <li>• <b>Reflection</b></li> <li>• <b>Rotation</b></li> </ul>

<b>Reflections</b> <b>H. Rotations</b>	symmetry G2. Graph reflections  <b>H. Rotations</b> H1. Graph rotations H2. Recognize rotational symmetry	I can graph transformations (translations, reflections, and rotations) on a coordinate plane. (7.3.2.4)		<ul style="list-style-type: none"> <li><b>Translation</b></li> </ul>
---	--	---	--	--

May

Content	Skills	Learning Targets (Aligned to State Standards)	Assessment	Resources & Technology
<b>UEQ: Chapter 10</b> <b>Area and Volume</b>   <ul style="list-style-type: none"> <li><i>How is the volume of 3-D figures calculated?</i></li> </ul> <b>A. Area: Parallelograms</b> <b>B. Area: Triangles and Trapezoids</b> <b>C. Area: Circles</b>  <b>D. Surface Area: Prisms and Cylinders</b>	<b>Chapter 10: Area and Volume</b>  A. Area: Parallelograms A1. Calculate area of rectangles A2. Calculate area of parallelograms  <b>B. Area: Triangles and Trapezoids</b> B1. Determine area of triangles B2. Determine area of trapezoids	<b>Chapter 10: Area and Volume</b>  Learning Target #1:  I can find the area of parallelograms, triangles, trapezoids and circles. (7.3.2.2)  <b>Learning Target #2:</b>  I can find the surface area of prisms and cylinders. (7.3.1.2)	<b>Chapter 10: Area and Volume</b>  A. Area: Parallelograms <b>B. Area: Triangles and Trapezoids</b> <b>C. Area: Circles</b>  A-C. Summative Quiz #1 - short answer (CSA)  <b>D. Surface Area: Prisms and Cylinders</b>  <b>E. Volume: Prisms and Cylinders</b>	<b>Chapter 10: Area and Volume</b>  <b>Prentice Hall Mathematics: Algebra Readiness</b>  Unit Tests <a href="#">S:\Middle School\7th Grade\Math Stuff</a>  Key Vocabulary:  <ul style="list-style-type: none"> <li>Area</li> </ul>

<p><b>E. Volume: Prisms and Cylinders</b></p>	<p><b>C. Area: Circles</b>  C1. Find area of circles  C2. Find area of irregular figures</p> <p><b>D. Surface Area: Prisms and Cylinders</b>  D1. Calculate surface area of prisms  D2. Calculate surface area of cylinders</p> <p><b>E. Volume: Prisms and Cylinders</b>  E1. Find volume of prisms  E2. Find volume of cylinders</p>	<p><b>Learning Target #3:</b></p> <p>I can find the volume of prisms and cylinders. (7.3.1.2)</p> <p>Learning Target #4:</p> <p>I can find the area of circles and sectors. (7.3.1.1)</p> <p><b>Learning Target #1:</b></p>	<p><i>D-E. Summative Quiz #2 - short answer (CSA)</i></p>	<ul style="list-style-type: none"> <li>• Lateral Area</li> <li>• Surface Area</li> <li>• Volume</li> <li>• Cylinder</li> <li>• Prism</li> </ul>
---	--	---	---	---

<p><b>UEQ: Chapter 11 Right Triangles in Algebra</b></p> <p><i>How is the square root of numbers determined?</i></p> <p><i>How are the missing measures of right triangles calculated?</i></p> <p><i>How are the distance and midpoint formulas applied?</i></p> <p><b>A. Square Roots and Irrational Numbers</b>  <b>B. Pythagorean Theorem</b>  <b>C. Distance and Midpoint Formulas</b>  <b>D. Special Right Triangles</b>  <b>E. Sine, Cosine, and Tangent Ratios</b>  <b>F. Angles of Elevation and Depression</b></p>	<p><b>A. Square Roots and Irrational Numbers</b>  <b>A1. Find square roots</b>  <b>A2. Classify real numbers</b></p> <p><b>B. Pythagorean Theorem</b>  <b>B1. Apply the Pythagorean Theorem</b>  <b>B2. Identify right triangles</b></p> <p><b>C. Distance and Midpoint Formulas</b>  <b>C1. Find distance</b>  <b>C2. Find midpoint</b></p> <p><b>D. Special Right Triangles</b>  <b>D1. Use 45-45-90 triangles</b>  <b>D2. Use 30-60-90 triangles</b></p> <p><b>E. Sine, Cosine, and Tangent Ratios</b>  <b>E1. Find ratios in right triangles</b>  <b>E2. Apply ratios to</b></p>	<p>I can find square roots (7.1.1.1)</p> <p><b>Learning Target #2:</b> I can determine the distance between rational and irrational numbers. (7.1.1.1)</p>	<p><b><i>A. Square Roots and Irrational Numbers</i></b>  <b><i>B. Pythagorean Theorem</i></b>  <b><i>C. Distance and Midpoint Formulas</i></b>  <b><i>A-C. Checkpoint Quiz #1 - short answer (CFA)</i></b></p> <p><b><i>D. Special Right Triangles</i></b>  <b><i>E. Sine, Cosine, and Tangent Ratios</i></b>  <b><i>D-E. Checkpoint Quiz #2 - short answer (CFA)</i></b></p> <p><b><i>F. Angles of Elevation and Depression</i></b></p> <p><b><i>CA= Chapter 11 Unit Test - short answer (CSA)</i></b></p>	
---	--	--	---	--

<p>UEQ: Selected Lessons from Chapter 12</p>	<p>solve problems</p> <p><b>F. Angles of Elevation and Depression</b>  <b>F1. Use sine, cosine, and tangent to determine angle of elevation</b>  <b>F2. Use sine, cosine, and tangent to determine angle of depression</b></p> <p><b>A. Frequency Tables, Line Plots, and Histograms</b>  <b>A1. Use frequency tables and line plots</b>  <b>A2. Display data using histograms</b></p> <p><b>B. Counting Outcomes and Theoretical</b></p>	<p><b>Learning Target #1: I can display data in frequency tables, line plots, histograms, stem-and-leaf plots. (7.4.1.1)</b></p> <p><b>Learning Target #2:</b></p>	<p><i>A. Frequency Tables, Line Plots, and Histograms</i>  <i>B. Counting Outcomes and Theoretical Probability</i>  <i>C. Experimental Probability</i>  <i>A-C. Quiz , 10 questions</i></p>	
--	---	--	---	--

<p><b>Data Analysis and Probability</b></p> <p><i>How are graphs used to represent data?</i></p> <p><i>How are theoretical and experimental probability determined?</i></p> <p><b>A. Frequency Tables, Line Plots, and Histograms</b></p> <p><b>B. Counting Outcomes and Theoretical Probability</b></p> <p><b>C. Experimental Probability</b></p>	<p><b>Probability</b></p> <p><b>B1. Count possible choices</b></p> <p><b>B2. Determine probability by counting outcomes</b></p> <p><b>C. Experimental Probability</b></p> <p><b>C1. Calculate experimental probability</b></p> <p><b>C2. Simulate an event</b></p>	<p><b>I can calculate probability. (7.4.1.1)</b></p> <p><b>Learning Target #3:</b></p> <p><b>I can calculate mean, median, mode, range, and outlier. (7.4.1.2)</b></p>	<p><i>short answer (CFA)</i></p> <p><i>CA=Chapter 12 Unit Test, 25 questions short answer (CSA)</i></p>	
--	--	--	---	--