



# **2020-2021 Standards Based Curriculum Plan Mathematics Grade 7**

UPDATED 06/2020

**Priority, Secondary & Supporting Standards** identified based on Item Analysis Reports of MAP 2019 from the Missouri Department of Elementary & Secondary Education (DESE).

High Priority***	Secondary**	Supporting*
<a href="#">7.NS.A.2</a> [multiply & divide rational numbers]	<a href="#">7.NS.A.1</a> [add & subtract rational numbers]	<a href="#">7.GM.A.2</a> [construct geometric shapes]
<a href="#">7.RP.A.1</a> [unit rates]	<a href="#">7.NS.A.3</a> [rational numbers]	<a href="#">7.GM.A.4</a> [circles]
<a href="#">7.RP.A.2</a> [proportional relationships]	<a href="#">7.EE.I.A.1</a> [simplify algebraic expressions]	<a href="#">7.GM.B.6</a> [area, surface area & volume]
<a href="#">7.RP.A.3</a> [ratios, rates, & percents]	<a href="#">7.EE.I.A.2</a> [combine like terms]	<a href="#">7.DSP.A.1</a> [statistics]
<a href="#">7.EE.I.B.3</a> [equivalent expressions]	<a href="#">7.GM.A.1</a> [scale drawings]	<a href="#">7.DSP.A.2</a> [data]
<a href="#">7.EE.I.B.4</a> [solve equations & inequalities]	<a href="#">7.GM.A.3</a> [cross sections]	<a href="#">7.DSP.B.3</a> [statistical measures]
	<a href="#">7.GM.B.5</a> [angle properties]	<a href="#">7.DSP.B.4</a> [numerical measures]
	<a href="#">7.DSP.C.6</a> [theoretical & experimental probability]	<a href="#">7.DSP.C.5</a> [probability of chance events]
		<a href="#">7.DSP.C.7</a> [probability models]

## By the end of the year students in seventh grade will be able to...

In Grade 7 students will be able to:

- Analyze proportional relationships and use them to solve problems.
- Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers.
- Use properties of operations to generate equivalent expressions.
- Solve problems using numerical and algebraic expressions and equations.
- Draw and describe geometrical figures and describe the relationships between them.
- Apply and extend previous understanding of angle measure, area and volume.
- Use random sampling to draw inferences about a population.
- Draw informal comparative inferences about two populations.
- Develop, use and evaluate probability models.

Standards Pacing By Quarter			
Quarter 1	Quarter 2	Quarter 3	Quarter 4
Number Sense and Operations Ratio and Proportional Relationships	Ratio and Proportional Relationships Expressions, Equations and Inequalities	Geometry and Measurement Data Analysis, Statistics and Probability	Data Analysis, Statistics and Probability
<p>Apply and extend previous understandings of operations to add, subtract, multiply and divide rational numbers.</p> <ul style="list-style-type: none"> <li><a href="#">7.NS.A.1</a>**</li> <li><a href="#">7.NS.A.2</a>***</li> <li><a href="#">7.NS.A.3</a>**</li> </ul>	<p>Analyze proportional relationships and use them to solve problems.</p> <ul style="list-style-type: none"> <li><a href="#">7.RP.A.3</a>***</li> </ul>	<p>Draw and describe geometrical figures and describe the relationship between them</p> <ul style="list-style-type: none"> <li><a href="#">7.GM.A.1</a>**</li> <li><a href="#">7.GM.A.2</a>*</li> <li><a href="#">7.GM.A.3</a>**</li> <li><a href="#">7.GM.A.4</a>*</li> </ul>	<p>Use random sampling to draw inferences about a population.</p> <ul style="list-style-type: none"> <li><a href="#">7.DSP.A.1</a>*</li> <li><a href="#">7.DSP.A.2</a>*</li> </ul>
<p>Analyze proportional relationships and use them to solve problems.</p> <ul style="list-style-type: none"> <li><a href="#">7.RP.A.1</a>***</li> <li><a href="#">7.RP.A.2</a>***</li> </ul>	<p>Use properties of operations to generate equivalent expressions</p> <ul style="list-style-type: none"> <li><a href="#">7.EEI.A.1</a>**</li> <li><a href="#">7.EEI.A.2</a>**</li> </ul>	<p>Apply and extend previous understanding of angle measure, area and volume.</p> <ul style="list-style-type: none"> <li><a href="#">7.GM.B.5</a>**</li> <li><a href="#">7.GM.B.6</a>*</li> </ul>	<p>Develop use and evaluate probability models.</p> <ul style="list-style-type: none"> <li><a href="#">7.DSP.C.6</a>**</li> <li><a href="#">7.DSP.C.8</a>**</li> </ul>
	<p>Solve problems using numerical and algebraic expressions and equations</p> <ul style="list-style-type: none"> <li><a href="#">7.EEI.B.3</a>***</li> <li><a href="#">7.EEI.B.4</a>***</li> </ul>	<p>Develop use and evaluate probability models.</p> <ul style="list-style-type: none"> <li><a href="#">7.DSP.C.5</a>*</li> <li><a href="#">7.DSP.C.7</a>*</li> </ul>	<p>Draw informal comparative inferences about two populations.</p> <ul style="list-style-type: none"> <li><a href="#">7.DSP.B.3</a>*</li> <li><a href="#">7.DSP.B.4</a>*</li> </ul>

## Math/Grade 7 - Year at a Glance

Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<b>Quarter 1</b> 43 instructional days  <u>7.NS.A.1</u> Apply and extend previous understandings of numbers to add and subtract rational numbers.	Integers	Describe situations in which opposite quantities combine to make 0.  How can students represent and solve problems involving the addition and subtraction of numbers using a variety of models?	1.1 Integers and Absolute Value (Pages 2 – 7)  1.2 Adding Integers (Pages 8 - 13)  1.3 Subtracting Integers (Pages 14 - 19)  Eureka: G7 M2  Topic A  Use a foldable for integer rules.  10 Days	IXL <ul style="list-style-type: none"> <li><a href="#">7-B-1 Understanding integers</a></li> <li><a href="#">7-B-4 Absolute value and opposite integers</a></li> <li><a href="#">7-B-6 Integer inequalities with absolute values</a></li> <li><a href="#">7-B-* Quantities that combine to zero: word problems.</a></li> <li><a href="#">7-C-1 Integer addition rules</a></li> <li><a href="#">7-C-* Add integers using number lines</a></li> <li><a href="#">7-C-3 Add integers</a></li> <li><a href="#">7-C-* Add three or more integers</a></li> <li><a href="#">7-C-4 Integer subtraction rules</a></li> <li><a href="#">7-C-* Subtract integers using number lines</a></li> <li><a href="#">7-C-6 Subtract integers</a></li> <li><a href="#">7-C-8 Add and subtract integers using counters</a></li> </ul> Khan Academy <ul style="list-style-type: none"> <li><a href="#">Absolute value to find distance</a></li> <li><a href="#">Interpreting negative number statements</a></li> <li><a href="#">Missing numbers on the number line</a></li> <li><a href="#">Understand subtraction as adding the opposite.</a></li> <li><a href="#">Negative number addition and subtraction word problems</a></li> </ul> Desmos <ul style="list-style-type: none"> <li><a href="#">Adding integers</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring

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<p><b><u>7.NS.A.2</u> Apply and extend previous understandings of numbers to multiply and divide rational numbers.</b></p>	<p>Integers</p>	<p>How can students represent and solve problems involving the multiplication and division of numbers using a variety of models?</p>	<p>1.4 Multiplying Integers (Pages 22 - 27)</p> <p>1.5 Dividing Integers (Pages 28 - 33)</p> <p>G7 M2 Topic B and Lesson 14</p> <p>Eureka: G7 M2 Lesson 15, 18,19 and 20</p> <p>5 Days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-C-12 Integer multiplication rules</a></li> <li>• <a href="#">7-C-13 Multiply integers</a></li> <li>• <a href="#">7-C-14 Integer division rules</a></li> <li>• <a href="#">7-C-• New! Equal quotients of integers</a></li> <li>• <a href="#">7-C.15 Divide integers</a></li> <li>• <a href="#">7-C-16 Integer multiplication and division rules</a></li> <li>• <a href="#">7-C-17 Multiply and divide integers</a></li> <li>• <a href="#">7-C-20 Evaluate numerical expressions involving integers</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Why a negative times a negative makes sense</a></li> <li>• <a href="#">Multiplying negative numbers</a></li> <li>• <a href="#">Dividing negative numbers</a></li> <li>• <a href="#">Multiplying and dividing negative numbers word problems</a></li> </ul>	<p><b>Formative Options</b></p> <p>District Option (CFA)</p> <p>Exit Ticket Data Base</p> <p><b>Summative Tasks</b></p> <p>District Option (CSA)</p> <p>STAR Benchmark</p> <p>STAR Progress monitoring</p>
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Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<a href="#">7.NS.A.3</a> Solve problems involving the four arithmetic operations with rational numbers.	Rational Numbers	How can students compute with rational numbers?	<p>2.1 Rational Numbers (Pages 44 - 49)</p> <p>2.2 Adding Rational Numbers (Pages 50 - 55)</p> <p>2.3 Subtracting Rational Numbers (Pages 58 - 63)</p> <p>2.4 Multiplying and Dividing Rational Numbers (Pages 64 - 69)</p> <p>Eureka: G7 M2</p> <p>Lesson 15, 18,19 and 20</p> <p>15 Days</p>	<p>IXL</p> <ul style="list-style-type: none"> <li><a href="#">7-H-3 Convert between decimals and fractions or mixed numbers</a></li> <li><a href="#">7-H-4 Identify rational numbers</a></li> <li><a href="#">7-H-* New! Classify rational numbers using a diagram</a></li> <li><a href="#">7-H-6 Compare rational numbers</a></li> <li><a href="#">7-H-10 Add and subtract rational number</a></li> <li><a href="#">7-H-* New! Identify quotients of rational numbers: word problems</a></li> <li><a href="#">7-H-15 Multiply and divide rational numbers</a></li> </ul> <p>Khan Academy</p> <ul style="list-style-type: none"> <li><a href="#">Write common decimals as fractions</a></li> <li><a href="#">Rewriting decimals as fractions challenge</a></li> <li><a href="#">Converting fractions to decimals</a></li> <li><a href="#">Order rational numbers</a></li> <li><a href="#">Adding and subtracting rational numbers</a></li> <li><a href="#">Rational Numbers word problems</a></li> <li><a href="#">Negative signs in fractions (video)</a></li> <li><a href="#">Negative signs in fractions (with variables)</a></li> <li><a href="#">Multiply positive and negative fractions</a></li> <li><a href="#">Dividing mixed numbers with negatives</a></li> </ul> <p>Intervention</p> <ul style="list-style-type: none"> <li><a href="#">Relationship between decimal place value</a></li> <li><a href="#">Place value in decimal numbers</a></li> <li><a href="#">Decimal Division patterns over increasing place values</a></li> <li><a href="#">Estimate sums and differences of decimals using rounding</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

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				<ul style="list-style-type: none"> <li>• <a href="#">Round Decimals</a></li> <li>• <a href="#">Subtract two digit numbers – with regrouping</a></li> <li>• <a href="#">Division with decimal quotients</a></li> <li>• <a href="#">Divide by decimals</a></li> <li>• <a href="#">Add, subtract, multiply, and divide fractions and mixed numbers</a></li> <li>• <a href="#">Understand fractions: fraction bars</a></li> <li>• <a href="#">Divisibility rules</a></li> </ul> <p><b>Enrichment</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Real-Life STEM Video: Carpenter or Joiner</a></li> <li>• <a href="#">Big Ideas Math: Percisely Perfect Performance Task</a></li> </ul>	
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Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<a href="#">7.RP.A.1</a> Compute unit rates, including those that involve complex fractions, with like or different units.	Ratios & Proportions	How do rates help students describe real-life problems?	5.1 Ratios and Rates (Pages 162-169)  Eureka: G7 M1 Topic C  5 Days	<b>IXL</b> <ul style="list-style-type: none"> <li>• <a href="#">7-J-1 Understanding ratios</a></li> <li>• <a href="#">7-J-2 Identify equivalent ratios</a></li> <li>• <a href="#">7-J-3 Write an equivalent ratio</a></li> <li>• <a href="#">7-J-4 Equivalent ratios: word problems</a></li> <li>• <a href="#">7-J-5 Unit rates</a></li> <li>• <a href="#">7-J-* New! Calculate unit rates with fractions</a></li> <li>• <a href="#">7-J-6 Compare ratios: word problems</a></li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li>• <a href="#">Rates with fractions</a></li> </ul> <b>Desmos</b> <ul style="list-style-type: none"> <li>• <a href="#">Click Battle</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring

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<p><b>7.RP.A.2</b> Recognize and represent proportional relationships between quantities</p>	<p>Ratios &amp; Proportions</p>	<p>In what ways can students use proportions to show relationships?</p> <p>How can students write a proportion that solves a problem in real life?</p> <p>How can students compare two rates graphically?</p>	<p>5.2 Proportions (Pages 170-177)</p> <p>5.3 Writing Proportions (Pages 178-183)</p> <p>5.4 Solving Proportions (Pages 186 - 191)</p> <p>5.5 Slope (Pages 192 - 197)</p> <p>5.6 Direct Variation (Pages 198 - 203)</p> <p>G7 M1 Topic A, B, Lesson 10, 5, 16</p> <p>G7 M4 Lesson 12</p> <p>G7 M1 Lesson 5, 6, 10</p> <p>10 Days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-J-9 Do the ratios form a proportion?</a></li> <li>• <a href="#">7-J-10 Do the ratios form a proportion: word problems</a></li> <li>• <a href="#">7-J-11 Solve proportions</a></li> <li>• <a href="#">7-J-12 Solve proportions: word problems</a></li> <li>• <a href="#">7-J-13 Estimate population size using proportions</a></li> <li>• <a href="#">7-J-14 Rate of change: tables</a></li> <li>• <a href="#">7-J-15 Rate of change: graphs</a></li> <li>• <a href="#">7-J-16 Constant rate of change</a></li> <li>• <a href="#">7-K-1 Find the constant of proportionality from a table</a></li> <li>• <a href="#">7-K-3 Identify proportional relationships by graphing</a></li> <li>• <a href="#">7-K-4 Find the constant of proportionality from a graph</a></li> <li>• <a href="#">7-K-7 Identify proportional relationships from tables</a></li> <li>• <a href="#">7-K-9 Graph a proportional relationship using slope</a></li> <li>• <a href="#">7-K-10 Interpret graphs of proportional relationships</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Constant of proportionality from graph</a></li> <li>• <a href="#">Constant of proportionality from tables</a></li> <li>• <a href="#">Comparing constants of proportionality</a></li> <li>• <a href="#">Interpret constants of proportionality</a></li> <li>• <a href="#">Interpret constant of proportionality in graphs</a></li> <li>• <a href="#">Identify proportional relationships</a></li> <li>• <a href="#">Proportional relationships</a></li> <li>• <a href="#">Solving proportions</a></li> <li>• <a href="#">Writing proportions</a></li> <li>• <a href="#">Proportion word problems</a></li> </ul> <p><b>Desmos</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Marcellus the Giant</a></li> </ul> <p><b>Intervention</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Solve-one-step multiplication and division equations with decimals, fractions and mixed numbers</a></li> </ul>	<p><b>Formative Options</b></p> <p>District Option (CFA)</p> <p>Exit Ticket Data Base</p> <p><b>Summative Tasks</b></p> <p>District Option (CSA)</p> <p>STAR Benchmark</p> <p>STAR Progress monitoring</p>
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				<ul style="list-style-type: none"> <li><a href="#">Solve-one-step multiplication and division equations with decimals, fractions, and whole numbers</a></li> <li><a href="#">Solve-one step addition and subtraction equations: word problems</a></li> <li><a href="#">Write one-step equation: word problems</a></li> <li><a href="#">Solve one-step equation: word problems</a></li> </ul> <p>Enrichment</p> <ul style="list-style-type: none"> <li><a href="#">Real-Life STEM Video: Painting a Large Room</a></li> <li><a href="#">Big Ideas Performance Task: Mixing Paint</a></li> </ul>	
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Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<b>Quarter 2</b> <b>43 instructional days</b>  <b><a href="#">7.EE.B.3</a> Solve multi-step problems posed with rational numbers. (a) Convert between equivalent forms of the same number. (b) Assess the reasonableness of answers using mental computation and estimation strategies.</b>	Percents	<p>How can students convert a decimal into a percent and vice versa?</p> <p>How can students order numbers that are written as decimals, fractions and percents?</p>	<p>6.1 Percents and Decimals (Pages 214 - 219)</p> <p>6.2 Compare and ordering Fractions, Decimals, and Percents (Pages 220 - 225)</p> <p>Eureka: G7 M2 Lesson 13 &amp; 14 G7 M3 Lessons 10 and 11</p> <p>6 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li><a href="#">7.L.1 What percentage is illustrated?</a></li> <li><a href="#">7.L.2 Convert between percents, fractions, and decimals</a></li> <li><a href="#">7.L.3 Compare percents to fractions and decimals</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li><a href="#">Percents from fraction models</a></li> <li><a href="#">Practice percents from fraction models</a></li> <li><a href="#">Fraction, decimal and percent from visual models</a></li> <li><a href="#">Practice relate fractions, decimals, and percents</a></li> <li><a href="#">Convert percents to decimals</a></li> <li><a href="#">Convert percents to fractions</a></li> <li><a href="#">Convert fractions to percents</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

**St. Louis Public Schools Curriculum 2020-**

				<ul style="list-style-type: none"> <li>• <a href="#">Ordering numeric expressions</a></li> </ul>	
<p><b><u>7.RP.A.3</u> Solve problems involving ratios, rates, percentages and proportional relationships.</b></p>	Percents	How can students use percents to solve multi-step problems?	<p>6.3 The Percent Proportion (Pages 226 - 231)</p> <p>6.4 The Percent Equation (Pages 232 - 237)</p> <p>6.5 Percent of Increase and Decrease (Pages 240 – 245)</p> <p>6.6 Discounts and Markups (Pages 246 – 251)</p> <p>6.7 Simple Interest (Pages 252 – 257)</p> <p>Eureka:EG7 M1and G7 M4:</p> <p>10 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-L-4 Estimate percents of numbers</a></li> <li>• <a href="#">7-L-5 Percents of numbers and money amounts</a></li> <li>• <a href="#">7-L-6 Percents of numbers: word problems</a></li> <li>• <a href="#">7-L-7 Solve percent equations</a></li> <li>• <a href="#">7-L-8 Solve percent equations: word problems</a></li> <li>• <a href="#">7-L-9 Percent of change</a></li> <li>• <a href="#">7-L-10 Percent of change: word problems</a></li> <li>• <a href="#">7-L.11 Percent of change: find the original amount word problems</a></li> <li>• <a href="#">7.M.6 Percent of a number: tax, discount, and more</a></li> <li>• <a href="#">7.M.7 Which is the better coupon?</a></li> <li>• <a href="#">7.M.8 Find the percent: tax, discount, and more</a></li> <li>• <a href="#">7.M.9 Sale prices: find the original price</a></li> <li>• <a href="#">7.M.10 Multi-step problems with percents</a></li> <li>• <a href="#">7.M.11 Estimate tips</a></li> <li>• <a href="#">7.M.12 Simple interest</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Equivalent expressions with percent problems</a></li> <li>• <a href="#">Percent problems</a></li> <li>• <a href="#">Tax and tip word problems</a></li> <li>• <a href="#">Discount, markup, and commission word problems</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<a href="#">7.EE.A.1</a> Apply properties of operations to simplify and to factor linear algebraic expressions with rational coefficients.	Expressions and Equations	How can students simplify an algebraic expression?	<p>3.1 Algebraic Expressions (Pages 80 - 85)</p> <p>Eureka: G7 M3 Topic A</p> <p>Eureka: G7 M2 Lesson 13 &amp; 14 G7 M3 Lessons 10 and 11</p> <p>4 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li><a href="#">7.R.3 Write variable expressions: word problems</a></li> <li><a href="#">7.R.6 Evaluate absolute value expression</a></li> <li><a href="#">7.R.8 Identify terms and coefficients</a></li> <li><a href="#">7.R.9 Sort factors of variable expressions</a></li> <li><a href="#">7.R.10 Properties of addition and multiplication</a></li> <li><a href="#">7.R.11 Multiply using the distributive property</a></li> <li><a href="#">7.R.12 New! Identify equivalent linear expressions using algebra tiles</a></li> <li><a href="#">7.R.17 Identify equivalent linear expressions I</a></li> <li><a href="#">7.R.18 Identify equivalent linear expressions II</a></li> <li><a href="#">7.R.19 Identify equivalent linear expressions: word problems</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li><a href="#">Combining like terms with negative coefficients and distribution</a></li> <li><a href="#">Combining like terms with rational coefficients</a></li> <li><a href="#">Distributive property with variables (negative numbers)</a></li> <li><a href="#">Equivalent expressions: negative numbers &amp; distribution</a></li> </ul>	<p><b>Formative Options</b></p> <p>District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b></p> <p>District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

				<ul style="list-style-type: none"> <li><a href="#">Writing expressions word problems</a></li> </ul>	
<p><b>7.EE.A.2</b> Understand how to use equivalent expressions to clarify quantities in a problem.</p>	Expressions and Equations	How can students add or subtract algebraic expressions?	<p>3.2 Adding and Subtracting Linear Expressions (Pages 86 - 91)</p> <p>3.2 Extension Factoring Expressions (Pages 92 - 93)</p> <p>6 days</p> <p>G7 M2 Lessons 18 and 19 G7 M3 Lessons 3 and 4</p> <p>Algebra Tiles</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li><a href="#">7.R.14 Add and subtract linear expressions</a></li> <li><a href="#">7.R.15 Add and subtract like terms: with exponents</a></li> <li><a href="#">7.R.16 Factors of linear expressions</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li><a href="#">Interpreting linear expressions: diamonds</a></li> <li><a href="#">Interpreting linear expressions: flowers</a></li> <li><a href="#">Interpreting linear expressions practice</a></li> <li><a href="#">Writing expressions word problems</a></li> <li><a href="#">Factoring with the distributive property</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
<p><b>7.EE.B.4</b> Write and/or solve linear equations and inequalities in one variable.</p> <p>a. Write and/or solve equations of the form <math>x + p = q</math> and <math>px = q</math> in which p and q are rational numbers.</p>		<p>How do students add or subtract equations?</p> <p>How do students multiply or divide equations?</p>	<p>3.3 Solving Equations Using Addition and Subtracting (Pages 96 - 101)</p> <p>3.4 Solving Equations Using Multiplication and Division (Pages 102 - 107)</p> <p>G6 M4 Topic G and H</p> <p>G7 M2 Lesson 17, 22 and 23</p> <p>G7 M3 Topic B</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li><a href="#">7-S-1 Which x satisfies an equation?</a></li> <li><a href="#">7-S-2 Write an equation from words</a></li> <li><a href="#">7-S-3 Model and solve equations using algebra tiles</a></li> <li><a href="#">7-S-4 Write and solve equations that represent diagrams</a></li> <li><a href="#">7-S-5 Solve one-step equations</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li><a href="#">One-step addition &amp; subtraction equations: fractions &amp; decimals</a></li> <li><a href="#">One-step multiplication &amp; division equations: fractions &amp; decimals</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

			Algebra Tiles 5 days		
<p><b>7.EE1.B.4</b> Write and/or solve linear equations and inequalities in one variable.</p> <p>b. Write and/or solve two step equations of the form <math>px + q = r</math> and <math>p(x + q) = r</math> where p, q and r are rational numbers, and interpret the meaning of the solution in the context of the problem</p>		How can students solve a two-step equations?	<p>3.5 Solving Two-Step Equations (Pages 108 - 113)</p> <p>Algebra Tiles 5 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-S-6 Solve two-step equations</a></li> <li>• <a href="#">7-S-7 Solve equations: word problems</a></li> <li>• <a href="#">7-S-8 Solve equations involving like terms</a></li> <li>• <a href="#">S-S-9 Solve equations: complete the solution</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Two-step equations with decimals and fractions</a></li> <li>• <a href="#">Find the mistake: two-step equations</a></li> <li>• <a href="#">Interpret two-step equation word problems</a></li> <li>• <a href="#">Two-step equation word problems</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
<p><b>7.EE1.B.4</b> Write and/or solve linear equations and inequalities in one variable.</p> <p>c. Write, solve and/or graph inequalities of the form <math>px + q &gt; r</math> or <math>px + q &lt; r</math> where p, q and r are rational numbers</p>	Inequalities	How can students use a number line to represent solutions of an inequality?	<p>4.1 Writing and Graphing Inequalities (Pages 124 – 129)</p> <p>4.2 Solving Inequalities Using Addition and Subtraction (Pages 130 – 135)</p> <p>4.3 Solving Inequalities Using Multiplication or Division. (Pages 138 – 145)</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-T-1 Solutions to inequalities</a></li> <li>• <a href="#">7-T-2 Graph inequalities on number lines</a></li> <li>• <a href="#">7-T-3 Write inequalities from number lines</a></li> <li>• <a href="#">7-T-4 Solve one-step inequalities</a></li> <li>• <a href="#">7-T-5 Graph solutions to one-step inequalities</a></li> <li>• <a href="#">7-T-• New! One-step inequalities: word problems</a></li> <li>• <a href="#">7-T-6 Solve two-step inequalities</a></li> <li>• <a href="#">7-T-7 Graph solutions to two-step inequalities</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

			<p>4.4 Solving Two-Step Inequalities (Pages 146 – 151)</p> <p>Eureka: G7 M3 Lesson 12, 13, 14 and 15.</p> <p>8 days</p>	<p>Khan Academy</p> <ul style="list-style-type: none"> <li>• <a href="#">One-step inequalities</a></li> <li>• <a href="#">One-step inequalities word problem</a></li> <li>• <a href="#">Two-step inequalities</a></li> <li>• <a href="#">Two-step inequalities word problems</a></li> </ul>	
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Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<b>Quarter 3</b> <b>41 Instructional Days</b>  <b>7.GM.B.5</b> Use angle properties to write and solve equations for an unknown angle.	Constructions & Scale Drawings	How do students apply their knowledge of angles to find missing measurements?	7.1 Adjacent and Vertical Angles (Pages 270 – 275)  7.2 Complementary and Supplementary Angles (Pages 276 – 281)  G7 M3 Lessons 10 and 11  G7 M3 Topic A  3 days	<b>IXL</b> <ul style="list-style-type: none"> <li>7-W-14 Lines, line segments, and rays</li> <li>7-W-15 Parallel, perpendicular, and intersecting lines</li> <li>7-W-16 Identify complementary, supplementary, vertical, and adjacent angles</li> <li>7-W-17 Find measures of complementary, supplementary, vertical, and adjacent angles</li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li>Identifying supplementary, complementary, and vertical angles</li> <li>Complementary and supplementary angles (visual)</li> <li>Complementary and supplementary angles (no visual)</li> <li>Vertical angles</li> <li>Finding angle measures between intersecting lines</li> <li>Create equations to solve for missing angles</li> <li>Unknown angle problems (with algebra)</li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring

<p><b>7.GM.A.2</b> Use a variety of tools to construct geometric shapes. (a) Determine if provided constraints will create a unique triangle through construction. (b) Construct special quadrilaterals given specific parameters.</p>	<p>Constructions &amp; Scale drawings</p>	<p>How can students construct triangles?</p>	<p>7.3 Triangles (Pages 282 – 287)</p> <p>7.3 Extension Angle Measure of Triangles (Pages 288 – 289)</p> <p>7.4 Quadrilaterals (Pages 292 - 297)</p> <p>G7 M6 Topic B, Lesson 6 and 7</p> <p>6 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-W-3 Classify triangles</a></li> <li>• <a href="#">7-W-4 Triangle inequality</a></li> <li>• <a href="#">7-W-6 Classify quadrilaterals I</a></li> <li>• <a href="#">7-W-7 Classify quadrilaterals II</a></li> <li>• <a href="#">7-W-8 Graph triangles and quadrilaterals</a></li> <li>• <a href="#">7-W-9 Find missing angles in triangles</a></li> <li>• <a href="#">7-W-10 Find missing angles in triangles using ratios</a></li> <li>• <a href="#">7-W-11 Find missing angles in quadrilaterals I</a></li> <li>• <a href="#">7-W-12 Find missing angles in quadrilaterals II</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Triangle inequality theorem</a></li> <li>• <a href="#">Triangle side length rules</a></li> <li>• <a href="#">Quadrilateral types</a></li> <li>• <a href="#">Quadrilateral Angles</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
<p><b>7.GM.A.1</b> Solve problems involving scale drawings of real objects and geometric figures, including computing actual lengths and areas from a scale drawing and reproducing the drawing at a different scale.</p>		<p>How can students enlarge or reduce a drawing proportionality</p>	<p>7.5 Scale Drawing (Pages 298 - 305)</p> <p>Eureka: G7 M1 Topic D G7 M4 Topic C</p> <p>3 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-J-7 Scale Drawings: word problems</a></li> <li>• <a href="#">7-J-8 Scale Drawings: scale factor word problems</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Scale drawing word problems</a></li> <li>• <a href="#">Construct scale drawings</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>



<p><b>7.GM.A.4</b> Understand concepts of circles.  a. Analyze the relationships among the circumference, the radius, the diameter, the area and Pi in a circle.  b. Know and apply the formulas for circumference and area of circles to solve problems.</p>	Circles	<p>How can students find the circumference and area of the circle?</p> <p>How can you find perimeter of composite figure?</p>	<p>8.1 Circles and Circumference (Pages 316 - 323)</p> <p>8.2 Perimeters of Composite Figures (Pages 324 - 329)</p> <p>8.3 Areas of Circles (Pages 332 - 337)</p> <p>Eureka: G7 M3 Lesson 16, 17, 18, 20</p> <p>5 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Circumference of circles</a></li> <li>• <a href="#">Circles word problems</a></li> <li>• <a href="#">Perimeter</a></li> <li>• <a href="#">Area of circles</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Circumference of a circle</a></li> <li>• <a href="#">Perimeter &amp; area of composite shapes</a></li> <li>• <a href="#">Area of a circle</a></li> <li>• <a href="#">Area and circumference of circles challenge</a></li> </ul>	<p><b>Formative Options</b>  District Option (CFA)  Exit Ticket Data Base</p> <p><b>Summative Tasks</b>  District Option (CSA)  STAR Benchmark  STAR Progress monitoring</p>
<p><b>7.GM.B.6*</b> Understand the relationship between area, surface area and volume.  a. Find the area of triangles, quadrilaterals and other polygons composed of triangles and rectangles.</p>	Circles	<p>How can students find area of composite figure?</p>	<p>8.4 Areas of Composite Figures (Pages 338 – 343)</p> <p>Eureka: G7 M3 Lesson 19, 20, 21</p> <p>2 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Area of compound figures with triangles</a></li> <li>• <a href="#">Area of compound figures with triangles, semicircles and quarter circles</a></li> <li>• <a href="#">Area between two shapes</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Area of composite shapes</a></li> <li>• <a href="#">Area challenge</a></li> </ul>	<p><b>Formative Options</b>  District Option (CFA)  Exit Ticket Data Base</p> <p><b>Summative Tasks</b>  District Option (CSA)  STAR Benchmark  STAR Progress monitoring</p>

<p><b>7.GM.B.6*</b>Understand the relationship between area, surface area and volume. (b) Find the volume and surface area of prisms, pyramids and cylinders</p>	<p>Surface Area &amp; Volume</p>	<p>How can students find the surface area and volume of prism, pyramid and cylinder?</p>	<p>9.1 Surface Areas of Prisms (Pages 354 - 361) 9.2 Surface Areas of Pyramids (Pages 362 - 367) 9.3 Surface Area of Cylinders (Pages 368 – 373) 9.4 Volume of Prisms (Pages 376 – 381) 9.5 Volumes of Pyramids (Pages 382 – 387)</p> <p>Eureka: G7 M3 Topic C, D and E</p> <p>10 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Surface area of cubes and prisms</a></li> <li>• <a href="#">Surface area of pyramids</a></li> <li>• <a href="#">Surface area of cylinders</a></li> <li>• <a href="#">Volume of pyramids</a></li> <li>• <a href="#">Volume of cylinders</a></li> <li>• <a href="#">Volume of cubes and prisms</a></li> <li>• <a href="#">Volume of cubes and rectangular prisms: word problems</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Find surface area by adding areas of faces</a></li> <li>• <a href="#">Surface area</a></li> <li>• <a href="#">Surface area word problems</a></li> <li>• <a href="#">Volume and surface area word problems</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
<p><b>7.GM.A.3**</b>Describe two-dimensional cross sections of pyramids, prisms, cones and cylinders.</p>	<p>Surface Area &amp; Volume</p>	<p>Find two-dimensional cross section of three-dimensional figures.</p>	<p>9.5 Extension Cross Section of Three Dimensional Figures (Pages 388 – 389)</p> <p>Eureka: G7 M6 Topic C:</p> <p>5 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-W-Z Cross-sections of three-dimensional figures</a></li> </ul> <p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Cross sections of 3D objects (basic)</a></li> <li>• <a href="#">Cross sections of 3D objects</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

<p><b>7.DSP.C.5*</b> Investigate the probability of chance events.</p>	<p>Probability &amp; Statistics</p>	<p>Why do they use random sampling?</p>	<p>10.1 Outcomes and Events (Pages 400 – 405)</p> <p>10.1 Outcomes and Events (Pages 400 – 405)</p> <p>2 days</p>	<p><b>Khan Academy</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Simple probability</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
<p><b>7.DSP.C.7*</b> Explain possible discrepancies between a developed probability model and observed frequencies.</p>	<p>Probability &amp; Statistics</p>	<p>How can students describe the likelihood of an event?</p>	<p>10.2 Probability (Pages 406 – 411)</p> <p>Eureka: G7 M5 Lesson 4, 5, 8, 9, 12</p> <p>2 days</p>	<p><b>IXL</b></p> <ul style="list-style-type: none"> <li>• <a href="#">7-DD-1 Probability of simple events</a></li> <li>• <a href="#">7-DD- 2 Probability of simple events and opposite events</a></li> <li>• <a href="#">7-DD-3 Probability of mutually exclusive events and overlapping events</a></li> </ul>	<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>

Standards Based Curriculum			Aligned Instructional Resources		Assessment for/of Student Learning
Standard	Topic	Essential Questions	Text/ Print Only Options	Resources for Blended Instruction and Research Based Intervention	Assessment Resources
<b>Quarter 4</b> <b>48 Instructional Days</b>  <b>7.DSP.C.6**</b> Investigate the relationship between theoretical and experimental probabilities for simple events.	Probability & Statistics	How can students use relative frequencies to find probabilities?	10.3 Experimental and Theoretical Probability (Pages 412 – 419)  Eureka: G7 M5 Lesson 8, 9  2 days	<b>IXL</b> <ul style="list-style-type: none"> <li><a href="#">Experimental probability</a></li> <li><a href="#">Making predictions using experimental probability</a></li> <li><a href="#">Make predictions using theoretical probability</a></li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li><a href="#">Theoretical and experimental probabilities</a></li> <li><a href="#">Experimental Probability</a></li> <li><a href="#">Comparing probabilities</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring
<b>7.DSP.C.8**</b> Find probabilities of compound events using organized lists, tables, tree diagrams and simulations	Probability & Statistics	How can students find the number of possible outcomes of one or more events?  What is the difference between independent and dependent events?	10.4 Compound Events (Pages 420 – 427)  10.5 Independent and Dependent Events (Pages 428 – 435)  Extension 10.5 Simulations (Pages 436 – 437)  Eureka: G7 M5 Lesson 6, 7, 10, 11  4 days	<b>IXL</b> <ul style="list-style-type: none"> <li><a href="#">Interpret box-and-whisker plots</a></li> <li><a href="#">Interpret histograms</a></li> <li><a href="#">Interpret stem-and-leaf plots</a></li> <li><a href="#">Compound events: find the number of outcomes</a></li> <li><a href="#">Compound events: find the number of sums</a></li> <li><a href="#">Identify independent and dependent events</a></li> <li><a href="#">Probability of independent and dependent events</a></li> <li><a href="#">Counting principal</a></li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li><a href="#">Independent probability</a></li> <li><a href="#">Probabilities of compound events</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring

				<ul style="list-style-type: none"> <li>• <a href="#">Dependent probability</a></li> <li>• <a href="#">The general multiplication rule</a></li> </ul>	
<b>7.DSP.A.1*</b> Understand that statistics can be used to gain information about a population by examining a sample of the population.	Probability & Statistics	How can students determine whether a sample accurately represents a population?	10.6 Samples and Populations (Pages 440 – 445)  Eureka: G7 M5 Topic C  2 days	<b>IXL</b> <ul style="list-style-type: none"> <li>• <a href="#">Identify representative, random, and biased samples</a></li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li>• <a href="#">Identifying the population and sample</a></li> <li>• <a href="#">Generalizability of results</a></li> <li>• <a href="#">Bias in samples and surveys</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring
<b>7.DSP.A.2*</b> Use data from multiple samples to draw inferences about a population and investigate variability in estimates of the characteristic of interest.	Probability & Statistics	How can students make an inference using data from multiple samples?	10.6 Extension Generating Multiple Samples (Pages 446 – 447)  Eureka: G7 M5 Topic C  2 days	<b>Desmos</b> <ul style="list-style-type: none"> <li>• <a href="#">American Time use survey</a></li> </ul> <b>Khan Academy</b> <ul style="list-style-type: none"> <li>• <a href="#">Simple random samples</a></li> <li>• <a href="#">Sampling methods</a></li> </ul>	<b>Formative Options</b> District Option (CFA) Exit Ticket Data Base  <b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring

<p><b>7.DSP.B.3*</b> Analyze different data distributions using statistical measures.</p> <p><b>7.DSP.B4*</b> Compare the numerical measures of center, measures of frequency and measures of variability from two random samples to draw inferences about the population</p>	<p>Probability &amp; Statistics</p>	<p>How do they use descriptive statistics?</p>	<p>10.7 Comparing Populations (Pages 448 – 453)</p> <p>Eureka: G7 M5 Topic D</p> <p>2 days</p>		<p><b>Formative Options</b> District Option (CFA) Exit Ticket Data Base</p> <p><b>Summative Tasks</b> District Option (CSA) STAR Benchmark STAR Progress monitoring</p>
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