





Ganado Unified School District (Mathematics/4th Grade)

PACING Guide SY 2016 - 2017

Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
Quarter 1 Aug.1-Oct.6, 2016	Chapter 1 – Place Value			
McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com	Lesson 1 – Place Value 4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. Mathematical Practices 2 Reason abstractly and quantitatively. 4 Model with mathematics. 6 Attend to precision. 7 Look for and make use of structure.	How does place value help represent the value of numbers?	Students will identify the place value of digits in multi-digit numbers.	digit place value
McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com	Lesson 2 – Read and Write Multi-Digit Numbers 4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons. Mathematical Practices 1 Make sense of problems and persevere	How does place value help represent the value of numbers?	Students will read and write multi-digit whole numbers.	period standard form expanded form word form




	<p>in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>6 Attend to precision.</p> <p>7 Look for and make use of structure.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 3 – Compare Numbers</p> <p>4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p> <p>7 Look for and make use of structure.</p>	<p>How does place value help represent the value of numbers?</p>	<p>Students will compare numbers using a number line and a place-value chart.</p>	<p>is equal to ($=$) number line is greater than ($>$) is less than ($<$)</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 4 – Order Numbers</p> <p>4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>Mathematical Practices</p>	<p>How does place value help represent the value of numbers?</p>	<p>Students will order numbers by using a place-value chart and comparing the digit values.</p>	<p>order</p>




	<p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>4 Model with mathematics.</p> <p>6 Attend to precision.</p> <p>7 Look for and make use of structure.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 5 – Use Place Value to Round</p> <p>4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place.</p> <p>Mathematical Practices</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>4 Model with mathematics.</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p>	<p>How does place value help represent the value of numbers?</p>	<p>Students will estimate numbers by rounding.</p>	<p>number line round</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 6 – Problem-Solving Investigation</p> <p>4.NBT.2 Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multi-digit numbers based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p>	<p>How does place value help represent the value of numbers?</p>	<p>Students will use the four-step plan to solve problems.</p>	<p>None</p>

	7 Look for and make use of structure.			
	Chapter 2- Add and Subtract Whole Numbers			
McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com	Lesson 1 - Addition Properties and Subtraction Rules 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. Mathematical Practices 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 5 Use appropriate tools strategically. 6 Attend to precision. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.	What strategies can I use to add or subtract?  	Students will use addition properties and subtraction rules to add and subtract. 	Associative Property of Addition Commutative Property of Addition Identity Property of Addition unknown
McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com	Lesson 2 – Addition and Subtraction Patterns 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. Mathematical Practices 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.	What strategies can I use to add or subtract? 	Students will use patterns to solve addition and subtraction problems.	pattern
McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com	Lesson 3 – Add and Subtract Mentally 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. Mathematical Practices	What strategies can I use to add or subtract?	Students will use mental math to add and subtract.	hundreds tens thousands

	<p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p> <p>7 Look for and make use of structure.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 4 – Estimate Sums and Differences</p> <p>4.NBT.3 Use place value understanding for multi-digit whole numbers.</p> <p>Mathematical Practices</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>4 Model with mathematics.</p> <p>6 Attend to precision.</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will estimate sums and differences of multi-digit numbers.</p>	<p>estimate difference</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 5 – Add Whole Numbers</p> <p>4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will add multi-digit whole numbers.</p>	<p>regroup</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 6 – Subtract Whole Numbers</p> <p>4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm.</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will subtract multi-digit whole numbers.</p>	<p>minuend subtrahend</p>

<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Mathematical Practices 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others. 5 Use appropriate tools strategically. 6 Attend to precision. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 7 – Subtract Across Zeros 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. Mathematical Practices 1 Make sense of problems and persevere in solving them. 3 Construct viable arguments and critique the reasoning of others 5 Use appropriate tools strategically. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will subtract multi-digit numbers, when some digits are zero.</p>	<p>minuend regroup subtrahend</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 8 – Problem-Solving Investigation: 4.NBT.4 Fluently add and subtract multi-digit whole numbers using the standard algorithm. Mathematical Practices 1 Make sense of problems and persevere in solving them. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 5 Use appropriate tools strategically.</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will solve problems by drawing a diagram.</p>	<p>none</p>
<p>McGraw-Hill My Math:</p>	<p>Lesson 9 – Solve Multi-Step Word Problems</p>	<p>What strategies can I use to add or subtract?</p>	<p>Students will solve multi-step word problems using addition and subtraction.</p>	<p>equation variable</p>

<p>Go Digital at connected.mcgraw- hill.com</p>	<p>4.OA.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.</p> <p>Mathematical Practices</p> <ol style="list-style-type: none"> 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 4 Model with mathematics. 5 Use appropriate tools strategically. 6 Attend to precision. 			
<p>Chapter 3 - Understand Multiplication and Division</p>				
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw- hill.com</p>	<p>Lesson 1 – Relate Multiplication and Division</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <ol style="list-style-type: none"> 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 	<p>How are multiplication and division related?</p> 	<p>Students will understand how multiplication and division are related.</p>	<p>dividend divisor factor product quotient fact family</p>

	<p>6 Attend to precision. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 2 – Relate Division and Subtraction</p> <p>4.NBT.6 Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <p>2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 5 Use appropriate tools strategically. 6 Attend to precision. 8 Look for and express regularity in repeated reasoning.</p>	<p>How are multiplication and division related?</p> 	<p>Students will relate division and subtraction.</p> 	<p>repeated subtraction</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 3 – Multiplication as Comparison</p> <p>4.OA.1 Interpret a multiplication equation as a comparison, e.g., interpret $35=5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p>	<p>How are multiplication and division related?</p> 	<p>Students will recognize the comparison of two groups as another strategy to use when multiplying.</p>	<p>bar diagram</p>

	<p>2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 5 Use appropriate tools strategically. 8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 4 – Compare to Solve Problems 4.OA.2 Multiply or divide to solve word problems involving multiplicative comparisons, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison. Mathematical Practices 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 6 Attend to precision. 7 Look for and make use of structure.</p>	<p>How are multiplication and division related?</p>	<p>Students will use comparison to solve problems.</p>	<p>divide multiply add compare subtract</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 5 – Multiplication Properties and Division Rules 4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p>	<p>How are multiplication and division related?</p>	<p>Students will use multiplication properties and division rules.</p>	<p>Commutative Property of Multiplication Identity Property of Multiplication Zero Property of Multiplication</p>

	<p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 5 Use appropriate tools strategically. 6 Attend to precision. 7 Look for and make use of structure.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 6 – The Associative Property of Multiplication</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <p>2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 5 Use appropriate tools strategically. 7 Look for and make use of structure.</p>	<p>How are multiplication and division related?</p>	<p>Students will use the Associative Property of Multiplication to solve problems.</p>	<p>Associative Property of Multiplication</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 7 – Factors and Multiples</p> <p>4.OA.4 Find all factor pairs for a whole number in the range 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1-100 is prime or composite.</p> <p>Mathematical Practices</p>	<p>How are multiplication and division related?</p>	<p>Students will find factors and multiples of whole numbers.</p>	<p>decompose multiple</p>

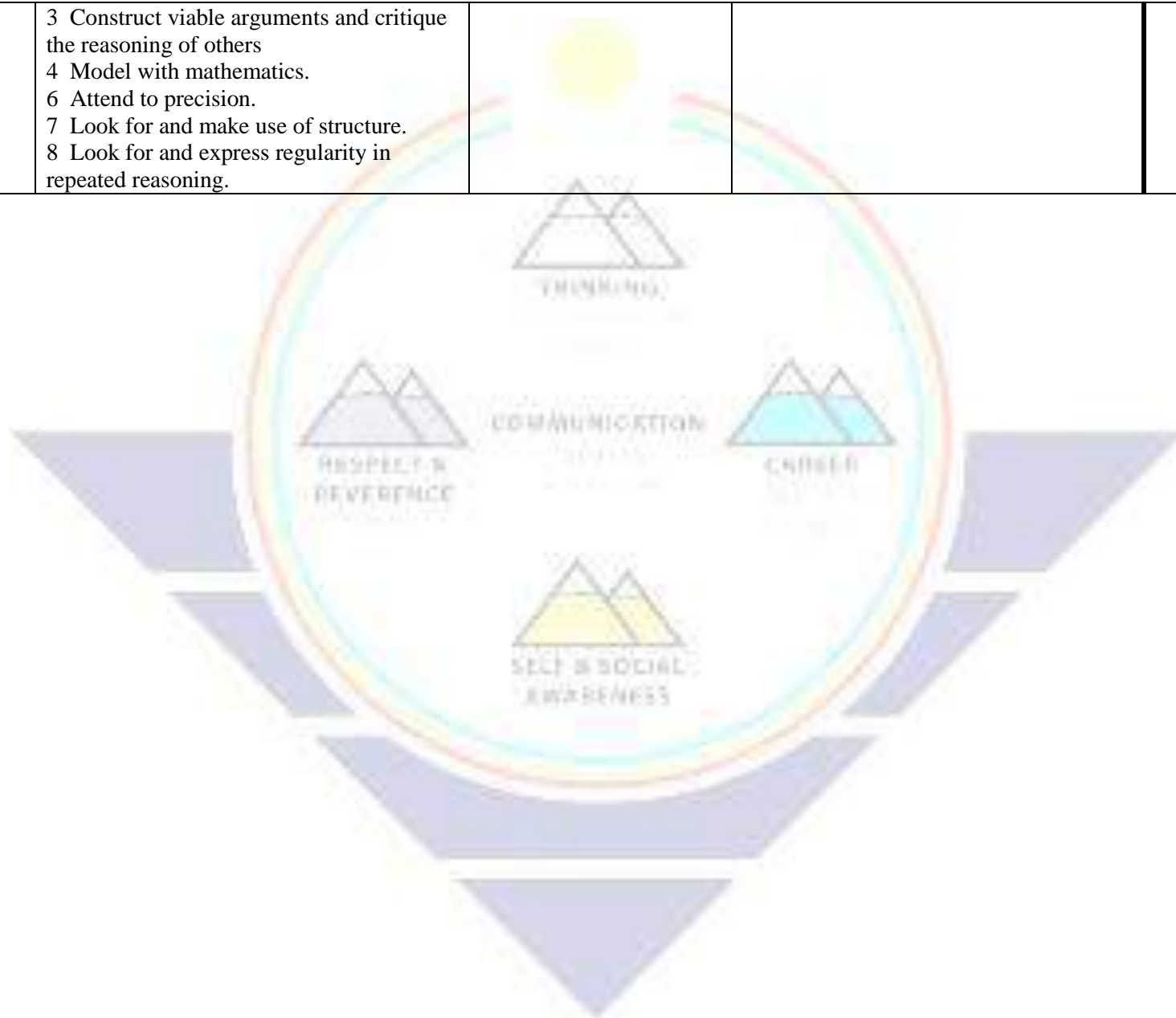
	<p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>5 Use appropriate tools strategically.</p> <p>7 Look for and make use of structure.</p> <p>8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 8 – Problem-Solving Investigation</p> <p>4.OA.2 Multiply or divide to solve word problems involving multiplicative comparisons, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>3 Construct viable arguments and critique the reasoning of others</p> <p>4 Model with mathematics.</p> <p>5 Use appropriate tools strategically.</p>	<p>How are multiplication and division related?</p>	<p>Students will check answers for reasonableness.</p>	<p>none</p>
Chapter 4- Multiply with One-Digit Numbers				
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 1 – Multiples of 10, 100, and 1,000</p> <p>4.NBT.1 Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right.</p> <p>Mathematical Practices</p>	<p>How can I communicate multiplication?</p>	<p>Students will multiply multiples of 10, 100, and 1,000 using basic facts and patterns.</p>	<p>multiples patterns</p>

	<p>2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 4 Model with mathematics. 5 Use appropriate tools strategically. 7 Look for and make use of structure. 8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 2 – Round to Estimate Products 4.NBT.3 Use place value understanding to round multi-digit whole numbers to any place. Mathematical Practices 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others 5 Use appropriate tools strategically. 7 Look for and make use of structure.</p>	<p>How can I communicate multiplication?</p>	<p>Students will estimate products by rounding.</p>	<p>place value round</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 3 – Hands On: Use Place Value to Multiply 4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models. Mathematical Practices 2 Reason abstractly and quantitatively. 3 Construct viable arguments and critique the reasoning of others</p>	<p>How can I communicate multiplication?</p>	<p>Students will explore multiplication using models.</p>	<p>none</p>

	4 Model with mathematics.			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 4 - Hands On: Use Models to Multiply</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <ol style="list-style-type: none"> 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 4 Model with mathematics. 5 Use appropriate tools strategically. 6 Attend to precision. 7 Look for and make use of structure. 	<p>How can I communicate multiplication?</p>	<p>Students will explore multiplication using area models and partial products.</p>	<p>partial products</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 5 – Multiply by a Two-Digit Number</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <ol style="list-style-type: none"> 1 Make sense of problems and persevere in solving them. 2 Reason abstractly and quantitatively. 	<p>How can I communicate multiplication?</p>	<p>Students will multiply a two-digit number by a one-digit number.</p>	<p>none</p>

	<p>3 Construct viable arguments and critique the reasoning of others</p> <p>4 Model with mathematics.</p> <p>6 Attend to precision.</p> <p>7 Look for and make use of structure.</p> <p>8 Look for and express regularity in repeated reasoning.</p>			
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 6 – Hands-On: Model Regrouping</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <p>1 Make sense of problems and persevere in solving them.</p> <p>2 Reason abstractly and quantitatively.</p> <p>4 Model with mathematics.</p> <p>5 Use appropriate tools strategically.</p> <p>6 Attend to precision.</p>	<p>How can I communicate multiplication?</p>	<p>Students will explore multiplication with regrouping using models.</p>	<p>regroup</p>
<p>McGraw-Hill My Math: Go Digital at connected.mcgraw-hill.com</p>	<p>Lesson 7 – The Distributive Property</p> <p>4.NBT.5 Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.</p> <p>Mathematical Practices</p> <p>2 Reason abstractly and quantitatively.</p>	<p>How can I communicate multiplication?</p>	<p>Students will use the Distributive Property to make multiplication easier.</p>	<p>Distributive Property</p>

3 Construct viable arguments and critique the reasoning of others
 4 Model with mathematics.
 6 Attend to precision.
 7 Look for and make use of structure.
 8 Look for and express regularity in repeated reasoning.

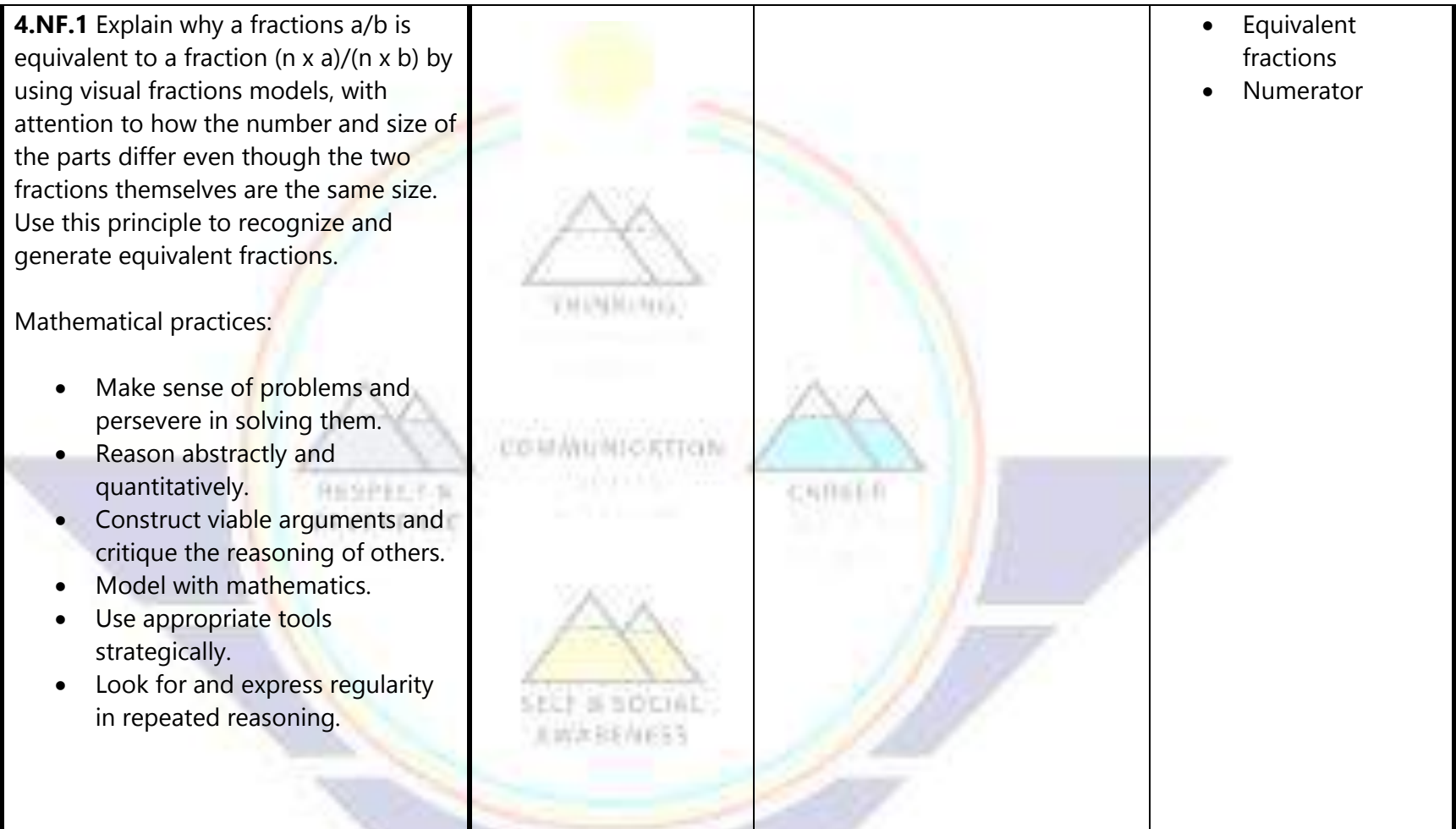




Ganado Unified School District (Mathematics/4th Grade)

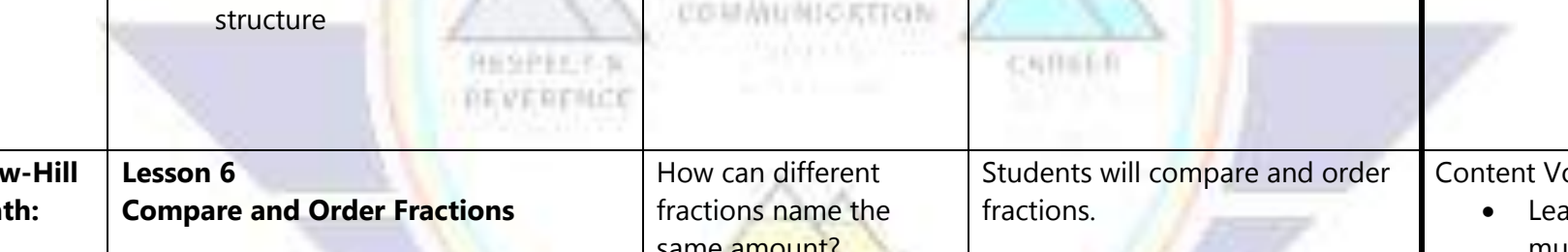

PACING Guide SY 2016-2017




Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
Quarter 2 October 2016 December 2016	Chapter 8 Fractions			
McGraw-Hill My Math: Go Digital at: Connected.mcgraw-hill.com	Lesson 1 Factors and Multiples 4.OA.4 Find all factor pairs for a whole number in the range of 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range of 1-100 is a multiple of a given one-digit number. Mathematical practices: <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 	How can different fractions name the same amount?	Students will find factors and multiples of whole numbers.	Academic language: <ul style="list-style-type: none"> • Collaborative conversations Content language: <ul style="list-style-type: none"> • Factor pairs
McGraw-Hill My Math:	Lesson 2 Prime and Composite Numbers	How can different fractions name the same amount?	Students will determine if a number is prime or composite.	Academic Language: <ul style="list-style-type: none"> • Composite number



<p>Go Digital at: Connected.mc graw-hill.com</p>	<p>4.OA.4 Find all factor pairs for a whole number in the range of 1-100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range of 1-100 is a multiple of a given one-digit number. Determine whether a given whole number in the range of 1-100 is prime or composite.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 			<ul style="list-style-type: none"> • Prime number
<p>McGraw-Hill My Math:</p>	<p>Lesson 3 Model Equivalent Fractions</p>	<p>How can different fractions name the same amount?</p>	<p>Students can explore equivalent fractions.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Denominator

<p>Go Digital at: Connected.mc graw-hill.com</p>	<p>4.NF.1 Explain why a fractions a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fractions models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Look for and express regularity in repeated reasoning. 		<ul style="list-style-type: none"> • Equivalent fractions • Numerator
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<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 4 Equivalent Fractions</p> <p>4.NF.1 Explain why a fractions a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fractions models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Look for and make use of structure. • Look for and express regularly in repeated reasoning. 	<p>How can different fractions name the same amount?</p>  	<p>Students will find equivalent fractions.</p>	<p>Content vocabulary:</p> <ul style="list-style-type: none"> • Denominator • Equivalent fractions • Numerator
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 5 Simplest Form</p> <p>4.NF.1 Explain why a fractions a/b is equivalent to a fraction $(n \times a)/(n \times b)$ by using visual fractions models, with attention to how the number and size of</p>	<p>How can different fractions name the same amount?</p>	<p>Students will write a fraction in simplest form.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Greatest common factor • Simplest form

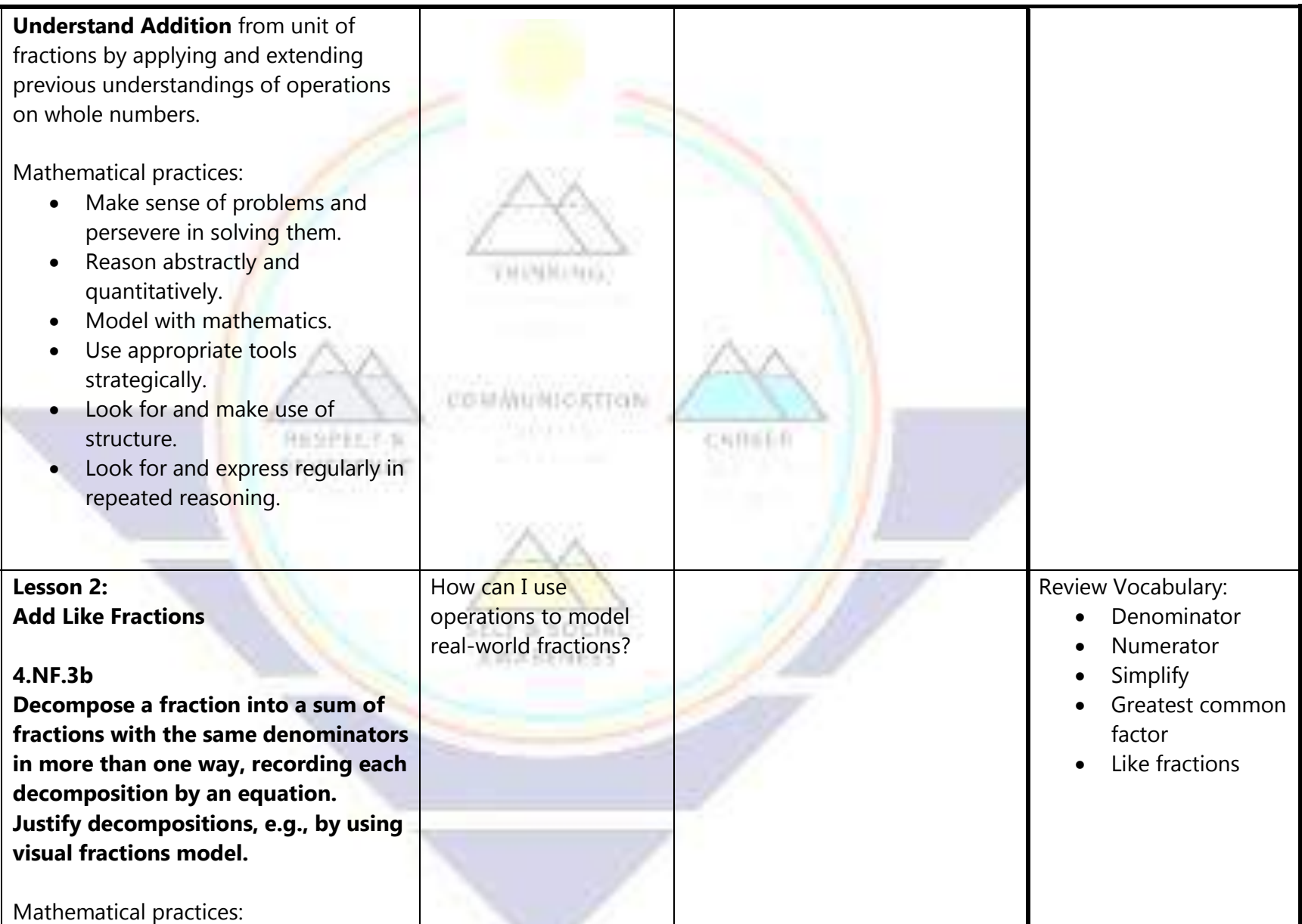
	<p>the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Construct viable arguments and critique the reasoning of others. • Model with mathematics • Attend to precision. • Look for and make use of structure 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 6 Compare and Order Fractions</p> <p>4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p>	<p>How can different fractions name the same amount?</p>	<p>Students will compare and order fractions.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Least common multiple



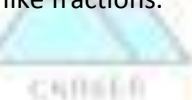
	<p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Use appropriate tools strategically. • Attend to precision. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 7 Use Benchmark Fractions to Compare and Order</p> <p>4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>Mathematical practices:</p>	<p>How can different fractions name the same amount?</p> 	<p>Student will use benchmark fractions to compare and order numbers.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Benchmark fractions`

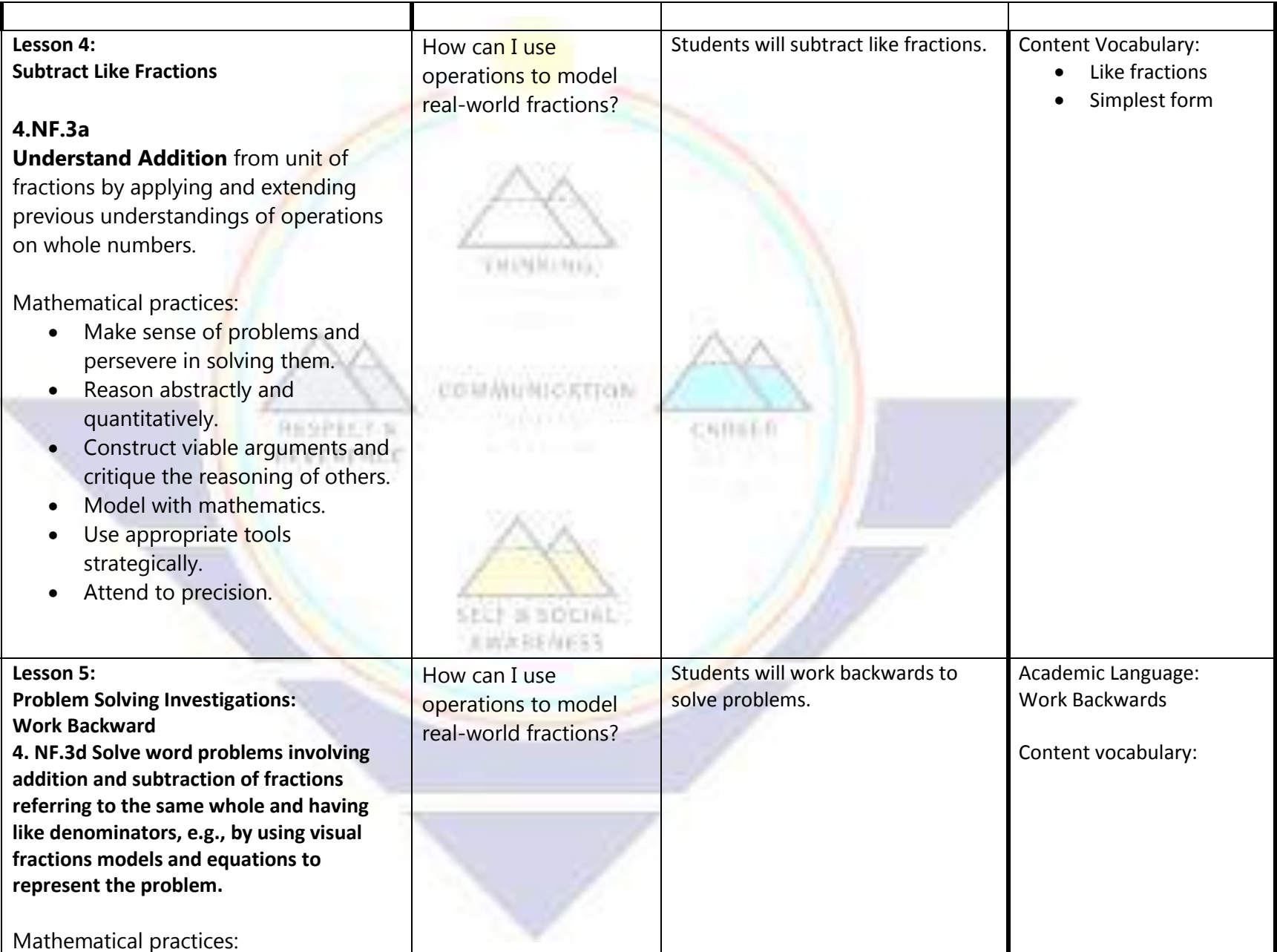
	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics • Use appropriate tools strategically. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 8 Problem Solving Investigation</p> <p>4.NF.2 Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as $\frac{1}{2}$. Recognize that comparisons are valid only when two fractions refer to the same whole. Record the results of comparisons with symbols $>$, $=$, or $<$, and justify the conclusions, e.g., by using a visual fraction model.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. 	<p>How can different name the same amount?</p> 	<p>Students will use logical reasoning to solve problems.</p>	<p>Academic language:</p>





	<ul style="list-style-type: none"> • Construct viable arguments and critique the reasoning of others. • Use appropriate tools strategically. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 9 Mixed Numbers</p> <p>4.NF.3b Decompose a fraction into a sum of fractions with the same denominators in more than one way, recording each decomposition by an equation. Justify decompositions, e.g. by using a visual fraction model.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 	<p>How can different fractions name the same amount?</p>	<p>Students will represent mixed numbers by decomposing them into a sum of whole numbers and unit fractions.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Mixed numbers

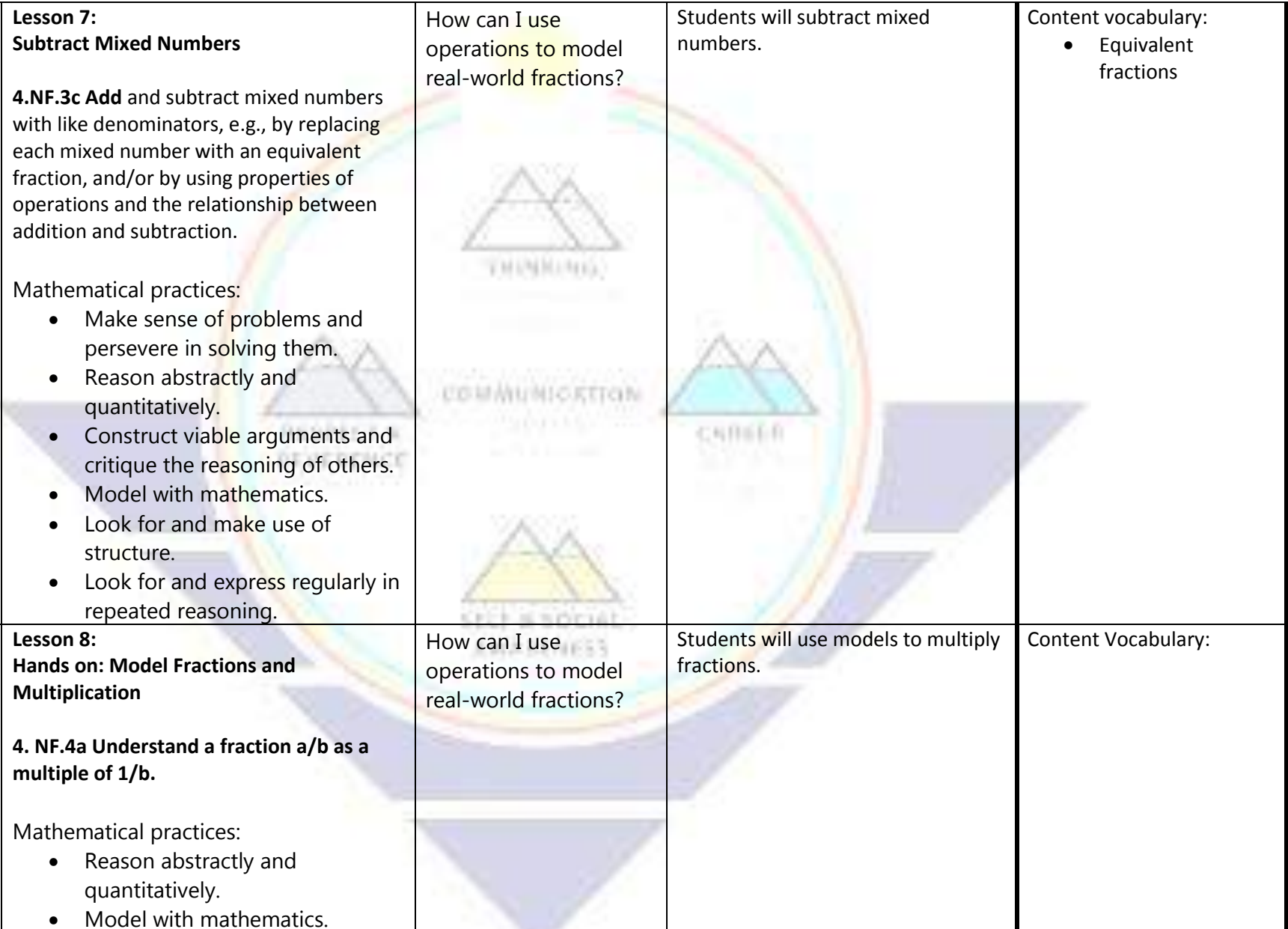
	<p>Lesson 10 Mixed numbers and Improper Fractions</p> <p>4. NF.3 Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and express regularly in repeated reasoning. 	<p>How can different fractions name the same amount?</p> 	<p>Students will write mixed numbers and improper fractions.</p> 	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Improper fractions
<p>Quarter 2 October 2016- December 2016</p>	<p>Chapter 9 Operations with Fractions</p>			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 1 Hands on: Use Models to Add Like Fractions</p> <p>4.NF.3a</p>	<p>How can I use operations to model real-world fractions?</p>	<p>Students will use models to add like fractions.</p>	<p>Content Vocabulary: Like fractions</p>

	<p>Understand Addition from unit of fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Use appropriate tools strategically. • Look for and make use of structure. • Look for and express regularly in repeated reasoning. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 2: Add Like Fractions</p> <p>4.NF.3b Decompose a fraction into a sum of fractions with the same denominators in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using visual fractions model.</p> <p>Mathematical practices:</p>	<p>How can I use operations to model real-world fractions?</p>		<p>Review Vocabulary:</p> <ul style="list-style-type: none"> • Denominator • Numerator • Simplify • Greatest common factor • Like fractions




	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3: Hands on: Use Models to Subtract Like Fractions</p> <p>4.NF.3a Understand Addition from unit of fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Look for and make use of structure. • Look for and express 	<p>How can I use operations to model real-world fractions?</p> 	<p>Students will use models to subtract like fractions.</p> 	

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 4: Subtract Like Fractions</p> <p>4.NF.3a Understand Addition from unit of fractions by applying and extending previous understandings of operations on whole numbers.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. 	<p>How can I use operations to model real-world fractions?</p> 	<p>Students will subtract like fractions.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Like fractions • Simplest form
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 5: Problem Solving Investigations: Work Backward</p> <p>4. NF.3d Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fractions models and equations to represent the problem.</p> <p>Mathematical practices:</p>	<p>How can I use operations to model real-world fractions?</p>	<p>Students will work backwards to solve problems.</p>	<p>Academic Language: Work Backwards</p> <p>Content vocabulary:</p>

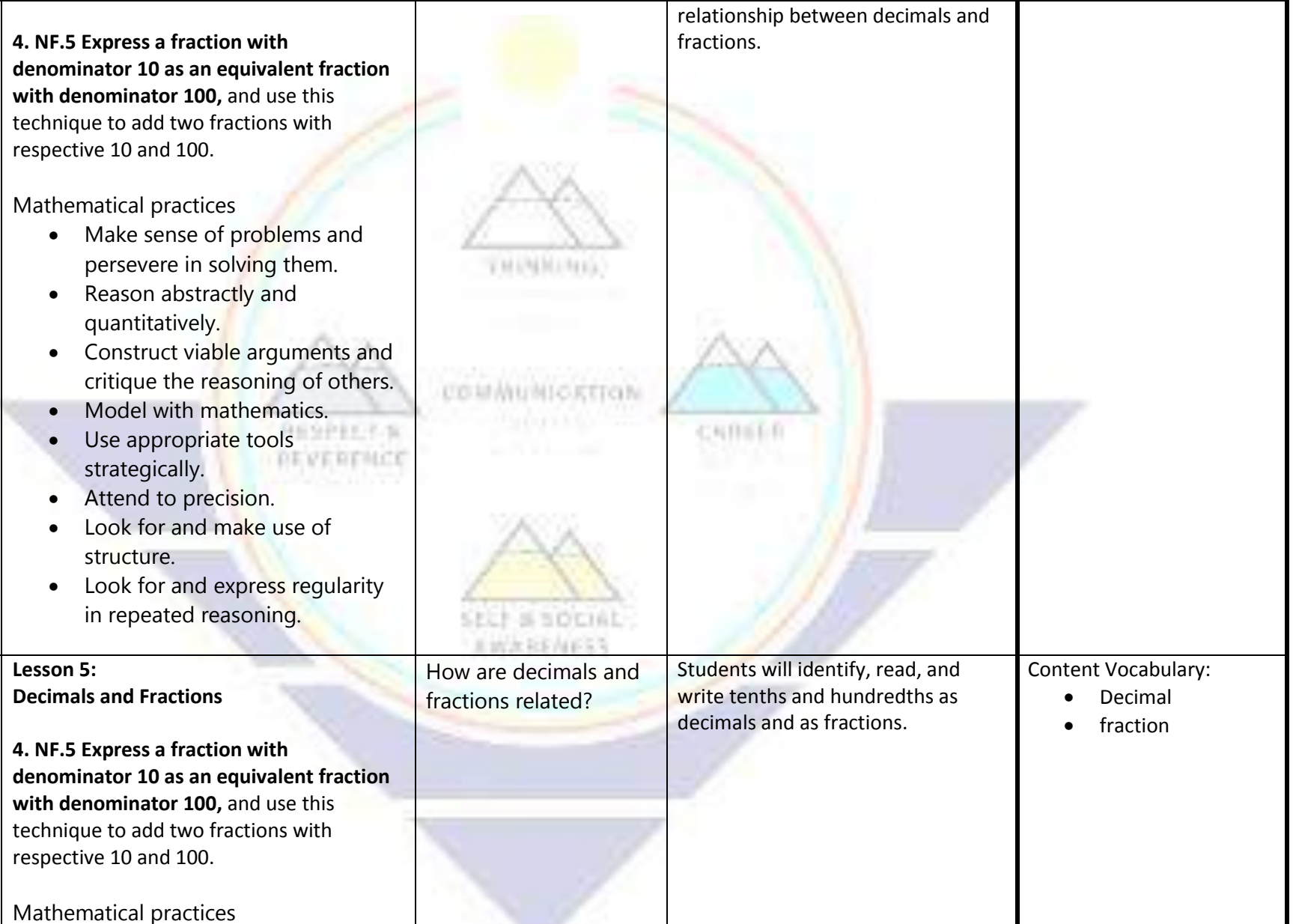
	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 6: Add Mixed Numbers</p> <p>4.NF.3c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Look for and make use of structure. • Look for and express regularly in repeated reasoning. 	<p>How can I use operations to model real-world fractions?</p>  	<p>Students will add mixed numbers.</p> 	<p>Content vocabulary:</p> <ul style="list-style-type: none"> • Associative property • Decompose • Equivalent fractions • Mixed number

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 7: Subtract Mixed Numbers</p> <p>4.NF.3c Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Look for and make use of structure. • Look for and express regularly in repeated reasoning. 	<p>How can I use operations to model real-world fractions?</p> 	<p>Students will subtract mixed numbers.</p>	<p>Content vocabulary:</p> <ul style="list-style-type: none"> • Equivalent fractions
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 8: Hands on: Model Fractions and Multiplication</p> <p>4. NF.4a Understand a fraction a/b as a multiple of $1/b$.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Model with mathematics. 	<p>How can I use operations to model real-world fractions?</p>	<p>Students will use models to multiply fractions.</p>	<p>Content Vocabulary:</p>




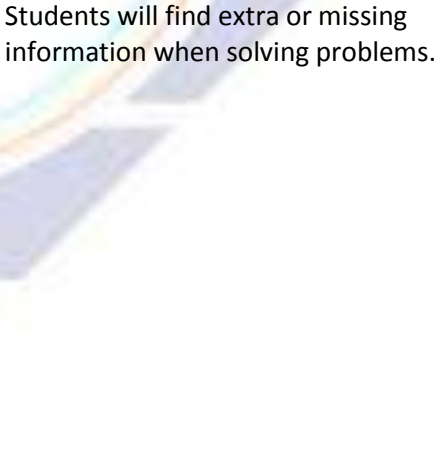
	<ul style="list-style-type: none"> • Use appropriate tools strategically. • Attend to precision • Look for and make sure of structure. 			
McGraw-Hill My Math: Go Digital at: Connected.mcgraw-hill.com	Lesson 9: Multiply Fractions by Whole Numbers 4. NF.4b Understanding a multiple a/b as a multiple of $1/b$, and use this understanding to multiply a fraction by a whole number. Mathematical practices: <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision • Look for and express regularly in repeated reasoning. 	How can I use operations to model real-world fractions? 	Students will multiply fractions by whole numbers.	Content vocabulary: <ul style="list-style-type: none"> • Product
Quarter 3 January 2017 to March 2017	Chapter 10 Fractions and Decimals			
McGraw-Hill My Math: Go Digital at:	Lesson 1 Hands on: Place Value Through Tenths and Hundredths	How are decimals and fractions related?	Students will explore using place-value charts and grids to model decimals.	Content Vocabulary; <ul style="list-style-type: none"> • Decimal • Hundredths • Tenth

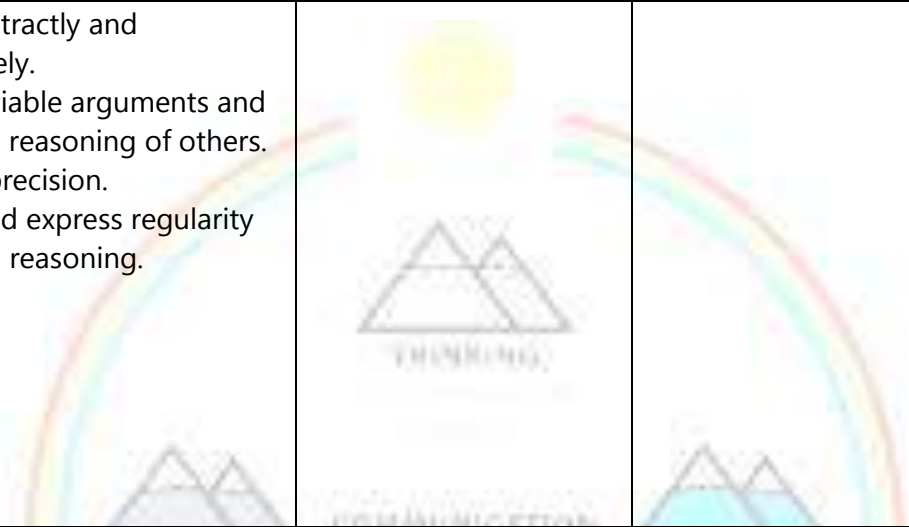
<p>Connected.mc graw-hill.com</p>	<p>4. NF.6 Use decimal notation for fractions with denominators 10 or 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			<ul style="list-style-type: none"> •
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 2: Tenths</p> <p>4. NF.6 Use decimal notation for fractions with denominators 10 or 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. 	<p>How are decimals and fractions related?</p> 	<p>Students will model and describe as part of the base-ten.</p>	<p>Content vocabulary:</p> <ul style="list-style-type: none"> • Tenths





	<ul style="list-style-type: none"> Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3: Hundredths</p> <p>4. NF.6 Use decimal notation for fractions with denominators 10 or 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning. 	<p>How are decimals and fractions related?</p>	<p>Students will model and describe hundredths as part of the base-ten.</p>	<p>Content vocabulary:</p> <ul style="list-style-type: none"> hundredths
<p>McGraw-Hill My Math:</p>	<p>Lesson 4: Hands on: Model Decimals and Fractions</p>	<p>How are decimals and fractions related?</p>	<p>Students will explore using grids and number lines to model the</p>	<p>Content Vocabulary:</p>

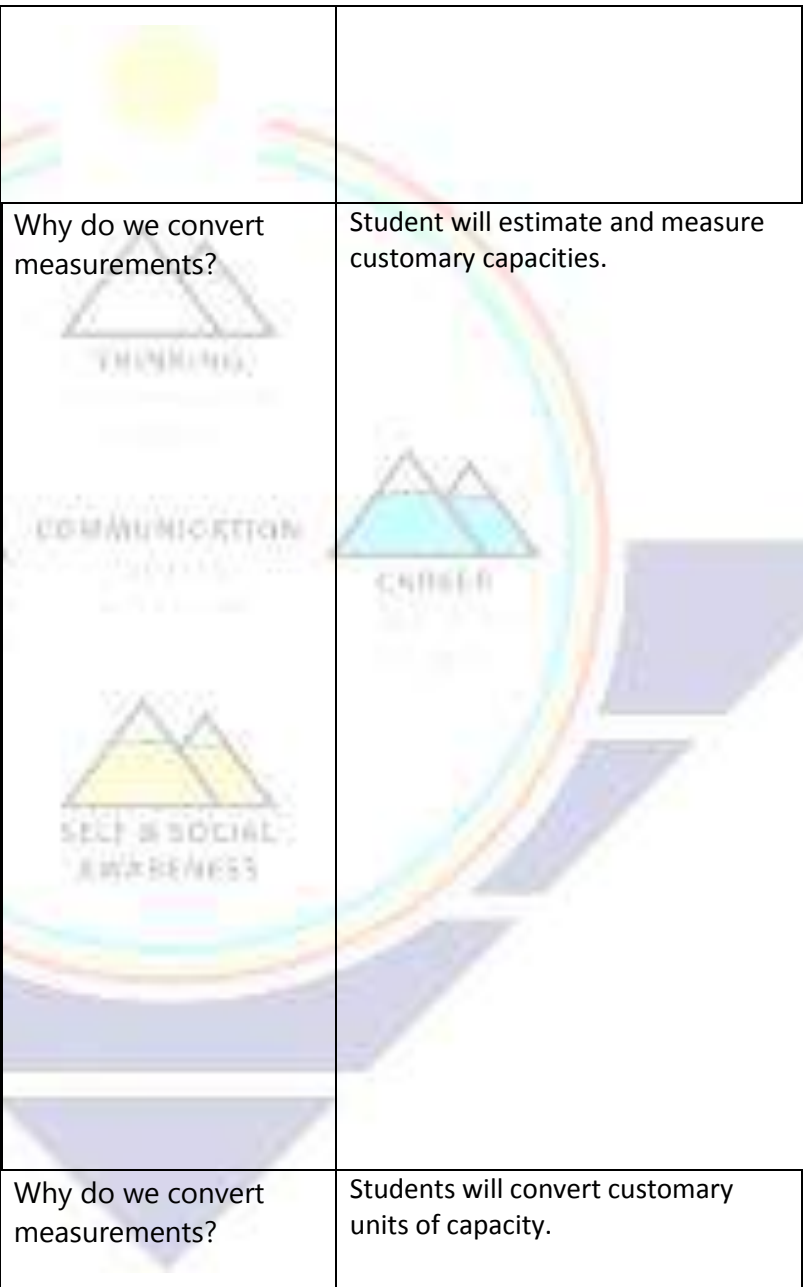
<p>Go Digital at: Connected.mc graw-hill.com</p>	<p>4. NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective 10 and 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 		<p>relationship between decimals and fractions.</p>	
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 5: Decimals and Fractions</p> <p>4. NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective 10 and 100.</p> <p>Mathematical practices</p>	<p>How are decimals and fractions related?</p>	<p>Students will identify, read, and write tenths and hundredths as decimals and as fractions.</p>	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Decimal • fraction

	<ul style="list-style-type: none"> Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and express regularity in repeated reasoning. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 6: Use Place Value and Models to Add</p> <p>4. NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective 10 and 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and express regularity in repeated reasoning. 	<p>How are decimals and fractions related?</p> 	<ul style="list-style-type: none"> Student will use place value and equivalent fractions to add two fractions with respective denominators 10 and 100. 	<p>Content vocabulary:</p> <ul style="list-style-type: none"> Like fractions

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 7: Compare and Order Decimals</p> <p>4. NF.7 Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols $>$, $=$, $<$, and justify the conclusions, e.g., by using a visual model.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Look for and make use of structure. 	<p>How are decimals and fractions related?</p> 	<p>Students will compare and order decimals to hundredths by reasoning about their size.</p> 	<p>Content Vocabulary:</p> <ul style="list-style-type: none"> • Place Value
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 8: Problem Solving Investigations: Extra or Missing Information</p> <p>4. NF.5 Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective 10 and 100.</p> <p>Mathematical practices</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. 	<p>How are decimals and fractions related?</p> 	<p>Students will find extra or missing information when solving problems.</p> 	<p>Content Vocabulary:</p>

	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Attend to precision. • Look for and express regularity in repeated reasoning. 			
Quarter 3 January 2017 to March 2017	Chapter 11 Customary Measurement			
McGraw-Hill My Math: Go Digital at: Connected.mcgraw-hill.com	Lesson 1 Customary Units of Length 4. MD.1 know relative sizes of measurement units within one system or units including km, m, cm; kg, g; lb., oz.; l, ml; hr., min, sec. Within a single system of measurement express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. Mathematical practices:	Why do we convert measurements? SELF & SOCIAL AWARENESS	Students will estimate and measure length using customary units.	Content Vocabulary: <ul style="list-style-type: none"> • Yard (yd.) • Customary systems • Foot (ft.) •

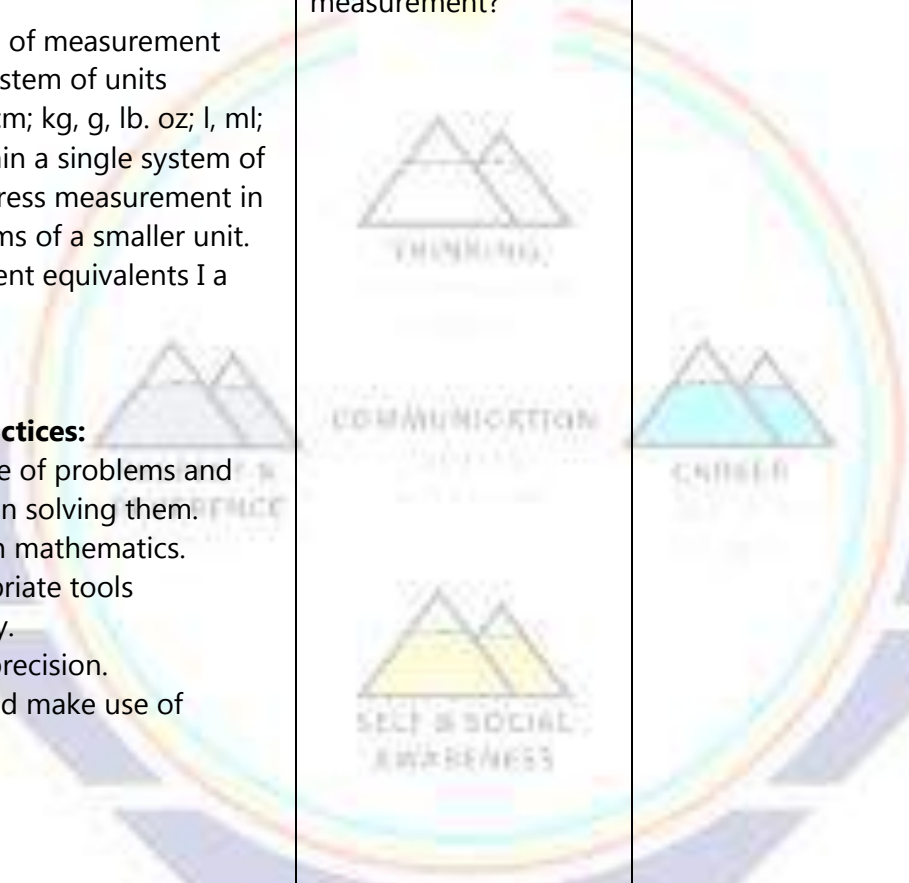
	<ul style="list-style-type: none"> • Make sense problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 2: Convert Customary Unit of Lengths</p> <p>4. MD.1 know relative sizes of measurement units within one system or units including km, m, cm; kg, g; lb., oz.; l, ml; hr., min, sec. Within a single system of measurement express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. 	<p>Why do we convert measurements?</p>  	<p>Students will convert customary units of length.</p> 	<p>Content vocabulary:</p> <ul style="list-style-type: none"> • Convert • Mile (mi)

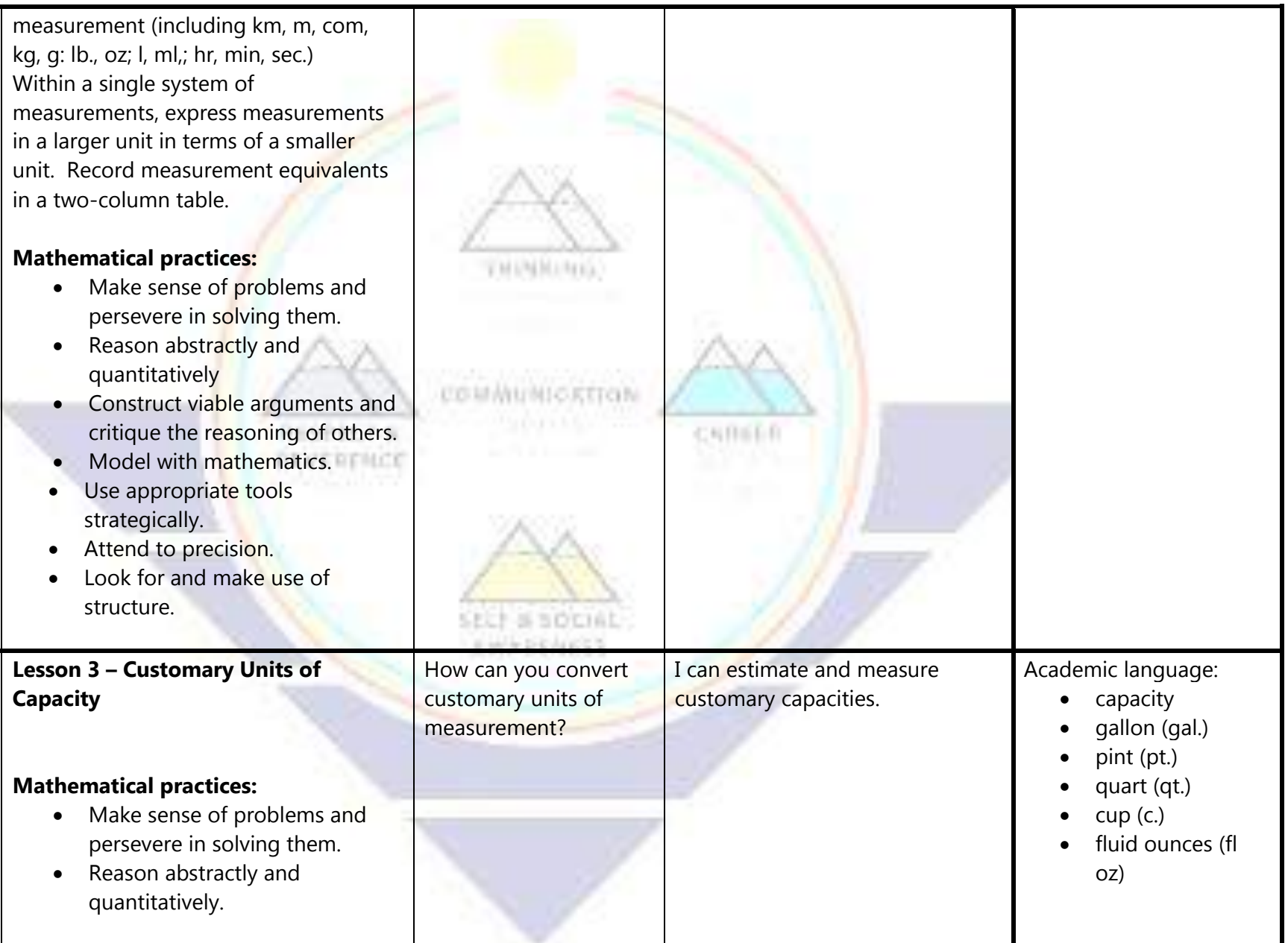
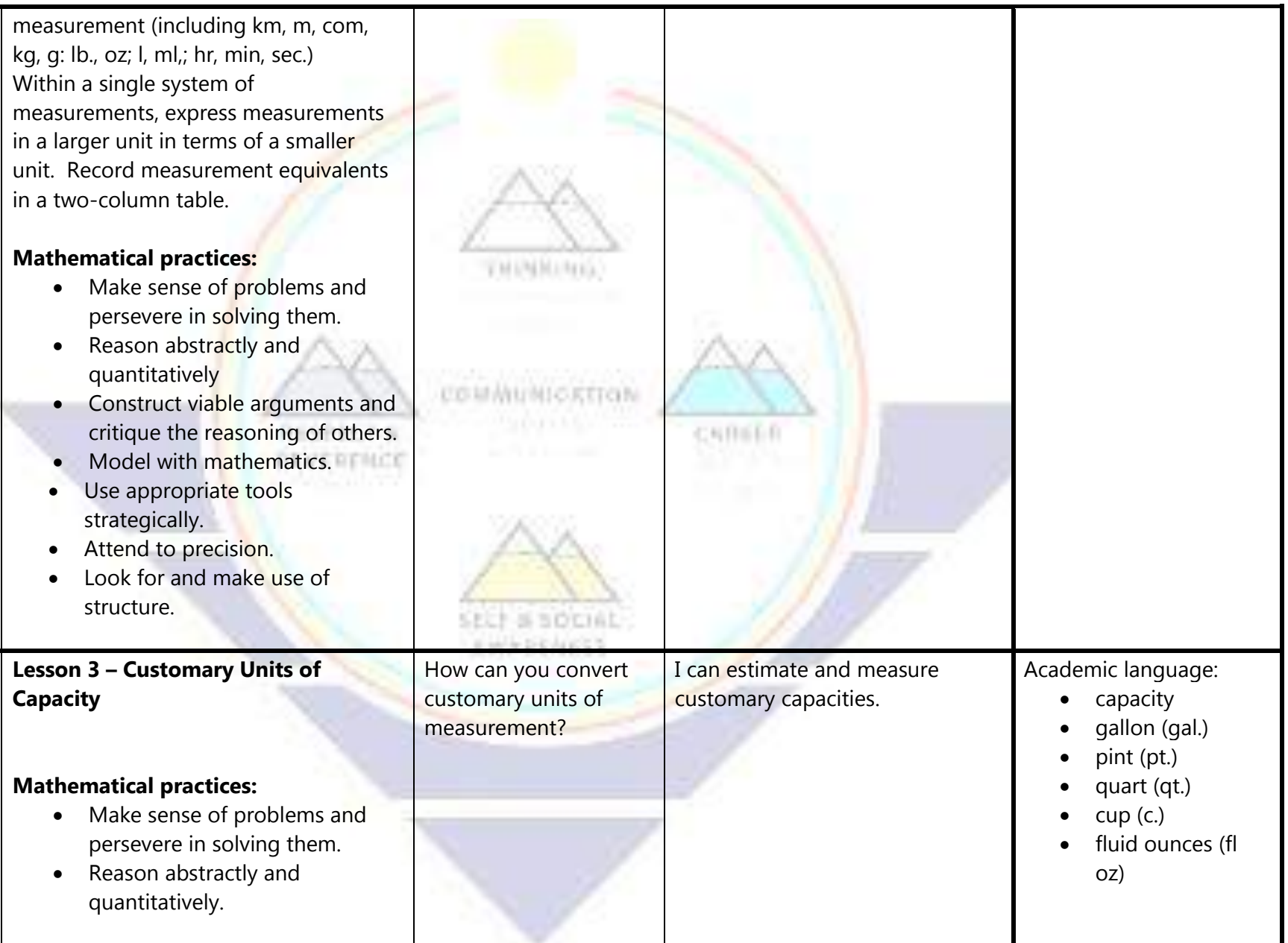
	<ul style="list-style-type: none"> Attend to precision. Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3: Customary Units of Capacity</p> <p>4. MD.1 know relative sizes of measurement units within one system or units including km, m, cm; kg, g; lb., oz.; l, ml; hr., min, sec. Within a single system of measurement express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Make sense problems and persevere in solving them. Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Attend to precision. Look for and express regularity in repeated reasoning. 	<p>Why do we convert measurements?</p> 	<p>Student will estimate and measure customary capacities.</p>	<p>Content vocabulary:</p> <ul style="list-style-type: none"> Capacity Gallon (gal) Pint (pt.) Quart (qt) Cup (c) Fluid ounce (fl oz.)
<p>McGraw-Hill My Math:</p>	<p>Lesson 4: Converting Customary Units of Capacity</p>	<p>Why do we convert measurements?</p>	<p>Students will convert customary units of capacity.</p>	<p>Content Vocabulary: Review Vocabulary:</p> <ul style="list-style-type: none"> Capacity





<p>Go Digital at: Connected.mc graw-hill.com</p>	<p>4. MD.1 know relative sizes of measurement units within one system or units including km, m, cm; kg, g; lb., oz.; l, ml; hr., min, sec. Within a single system of measurement express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 		<ul style="list-style-type: none"> • Convert • Is equal to (=) • Is greater than (>) • Is less than (<)
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Ganado Unified School District
(Mathematics/4 Units of Length)

Timeline & Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
<p>Quarter 3 Jan to March</p>	<p>Chapter 11 – Customary Measurement</p>			

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 1 – Customary Units of Length</p> <p>4.MD.1 Know relative sizes of measurement units within one system of units (including km, m, cm; kg, g, lb. oz; l, ml; hr, min, sec.). Within a single system of measurement, express measurement in a larger unit in terms of a smaller unit. Record measurement equivalents I a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 	<p>How can you convert customary units of measurement?</p> 	<p>Students will estimate and measure using customary units.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • Yard (yd.) • Customary system • Foot (ft.)
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 2 – Convert Customary Units of Length</p> <p>4.MD.1 Know relative sizes of measurement units Within one system of</p>	<p>How can you convert customary units of measurement?</p>	<p>I can convert customary units of length</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • convert • mile (mi.)




	<p>measurement (including km, m, com, kg, g; lb., oz; l, ml,; hr, min, sec.) Within a single system of measurements, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3 – Customary Units of Capacity</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. 	<p>How can you convert customary units of measurement?</p>	<p>I can estimate and measure customary capacities.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • capacity • gallon (gal.) • pint (pt.) • quart (qt.) • cup (c.) • fluid ounces (fl oz)

	<ul style="list-style-type: none"> • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 4 – Convert Customary Units of Capacity</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 	<p>How can you convert customary units of measurement?</p>  	<p>I can convert customary units of capacity.</p> 	<p>Academic language:</p> <ul style="list-style-type: none"> • capacity • convert • is equal to (=) • is greater than (>) • is less than (<)
<p>McGraw-Hill My Math:</p> <p>Go Digital at:</p>	<p>Lesson 5 – Customary Units of Weight</p> <p>Mathematical practices:</p>	<p>How can you convert customary units of measurement?</p>		<p>Academic language:</p> <ul style="list-style-type: none"> • ounce b • Customary system • Foot (ft.)

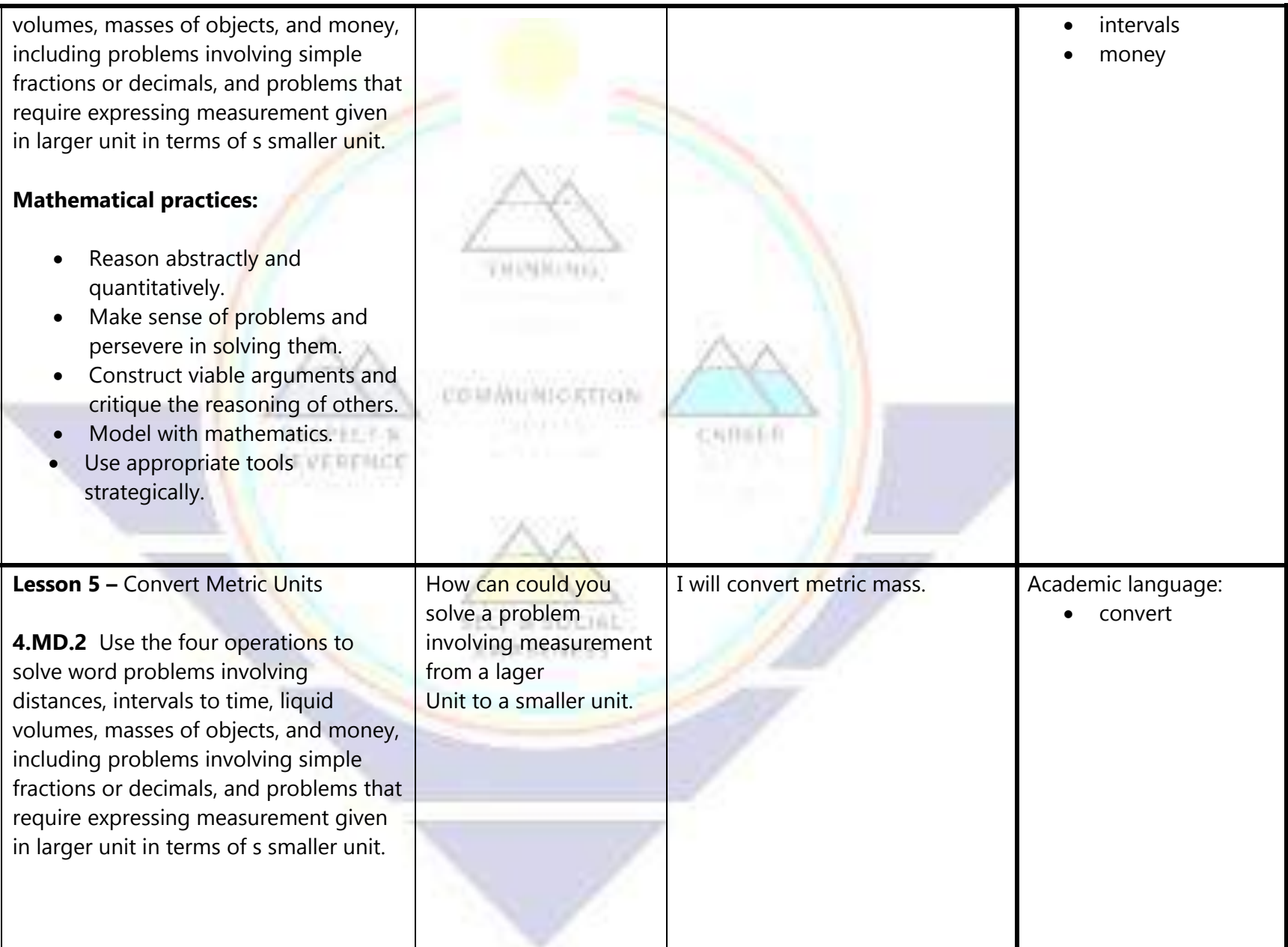
<p>Connected.mc graw-hill.com</p>	<ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 6 – Convert Customary Units of Weight</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 	<p>How can you convert customary units of measurement?</p>  		<p>Academic language:</p> <ul style="list-style-type: none"> • capacity • convert • length • weight
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 7 – Convert Units of Time</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. 	<p>How can you convert customary units of measurement?</p>		<p>Academic language:</p> <ul style="list-style-type: none"> • seconds




	<ul style="list-style-type: none"> • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 8 – Display Measurement Data in a Line-Plot</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. 	<p>How can you convert customary units of measurement?</p>		<p>Academic language:</p> <ul style="list-style-type: none"> • line plot
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 9 – Solve Measurement Problems</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Model with mathematics. • Use appropriate tools strategically. 	<p>How can you convert customary units of measurement?</p>		<p>Academic language:</p> <ul style="list-style-type: none"> • fraction

	<ul style="list-style-type: none"> Attend to precision. Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 10 – Problem – Solving Investigation: Guess, Check, and Revise</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and make use of structure. 	<p>How can you convert customary units of measurement?</p>		<p>Academic language:</p> <ul style="list-style-type: none"> distance interval volumes measurement scale quantities
<p>Quarter 3 Jan to March</p>	<p>Chapter 12 – Metric Measurement</p>			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 1 – Metric Units of Length</p> <p>4.MD.1 Know relative sizes of measurement units within one system of units including (e.g.; kg, g; lb, oz.; l, ml, hr. min, sec.) Within a single system of measurement, express measurements. In a larger unit in terms of a smaller unit.</p>	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p>	<p>I can estimate and measure mass and learn the difference between weight and mass.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> gram kilogram mass



	<p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and express regularity in repeated reasoning. 	 <p>THINKING</p>	 <p>SELF IS SOCIAL AWARENESS</p>	
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 2 –Metric Units of Capacity</p> <p>4.MD.1 Know relative sizes of measurement units within one system of units including (e.g.; kg, g; lb, oz;; l, ml, hr. min, sec.) Within a single system of measurement, express measurements. In a larger unit in terms of a smaller unit.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Make sense of problems and persevere in solving them. • Construct viable arguments and critique the reasoning of others. 	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p>  <p>SELF IS SOCIAL AWARENESS</p>	<p>I can estimate and measure metric capacity.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • liter (L) • milliliter (mL)

	<ul style="list-style-type: none"> • Model with mathematics. • Look for and express regularity in repeated reasoning. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3 – Metric Units of Mass</p> <p>4.MD.1 Know relative sizes of measurement units within one system of units including (e.g.; kg, g; lb, oz.; l, ml, hr. min, sec.) Within a single system of measurement, express measurements. In a larger unit in terms of a smaller unit.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Attend to precision. • Look for and express regularity in repeated reasoning. 	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p>	<p>I can estimate and measure mass and learn the difference between weight and mass.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • gram • kilogram • mass
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 4 – Problem – Solving Investigation: Make an Organized List</p> <p>4.MD.2 Use the four operations to solve word problems involving distances, intervals to time, liquid</p>	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p>	<p>I can make an organized list to solve problems.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • distance • volumes • mass • fractions • decimal

	<p>volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurement given in larger unit in terms of s smaller unit.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Make sense of problems and persevere in solving them. • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. 			<ul style="list-style-type: none"> • intervals • money
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 5 – Convert Metric Units</p> <p>4.MD.2 Use the four operations to solve word problems involving distances, intervals to time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurement given in larger unit in terms of s smaller unit.</p>	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p>	<p>I will convert metric mass.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • convert






	<p>Mathematical practices:</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematics. Attend to precision. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 6 – Solve Measurement Problems</p> <p>4.MD.2 Use the four operations to solve word problems involving distances, intervals to time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurement given in larger unit in terms of s smaller unit. Record measurement equivalents in a two-column table.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Model with mathematic. 	<p>How can could you solve a problem involving measurement from a lager Unit to a smaller unit.</p> 	<p>I can convert metric units.</p> 	<p>Academic language:</p> <ul style="list-style-type: none"> convert



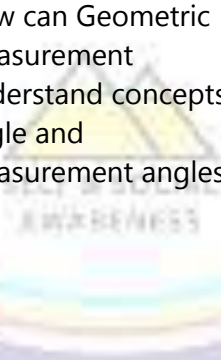
	<ul style="list-style-type: none"> Attend to precision. 			
Quarter 3 Jan to March	Chapter 13 – Perimeter and Area			
McGraw-Hill My Math: Go Digital at: Connected.mc graw-hill.com	Lesson 1 – Perimeter 4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems. Mathematical practices: <ul style="list-style-type: none"> Make sense of problems and persevere in solving them. Reason abstractly and quantitatively. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and make use of structure. Look for and express regularity in repeated reasoning. 	How can problems involving measurement and conversions of measurement form a larger unit to a smaller unit.	I can find the perimeter of a figure.	Academic language: <ul style="list-style-type: none"> perimeter
McGraw-Hill My Math: Go Digital at: Connected.mc graw-hill.com	Lesson 2 – Problem-Solving Investigation: Solve a simpler Problem 4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.	How can problems involving measurement and conversions of measurement form a larger unit to a smaller unit.	I can solve a simpler problem to solve problems.	Academic language: <ul style="list-style-type: none"> perimeter units

	<p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Construct viable arguments and critique the reasoning of others. • Reason abstractly and quantitatively. • Use appropriate tools strategically. • Attend to precision. • Look for and express regularity in repeated reasoning. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mc graw-hill.com</p>	<p>Lesson 3 – Hands On: Model Area</p> <p>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Use appropriate tools strategically. • Attend to precision. 	<p>How can problems involving measurement and conversions of measurement form a larger unit to a smaller unit.</p>	<p>I can explore the area of a figure.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • area • square unit • unit square


	<ul style="list-style-type: none"> • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 4 – Measure Area</p> <p>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Construct viable arguments and critique the reasoning of others. • Model with mathematic. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 	<p>How can problems involving measurement and conversions of measurement forma larger unit to a smaller unit.</p>	<p>I can find the area of rectangles and squares.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • area
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 5 – Relate Area and Perimeter</p> <p>4.MD.3 Apply the area and perimeter formulas for rectangles in real world and mathematical problems.</p>	<p>How can problems involving measurement and conversions of measurement forma larger unit to a smaller unit.</p>	<p>I can relate area to perimeter.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • area • perimeter

	<p>Mathematical practices:</p> <ul style="list-style-type: none"> • Make sense of problems and persevere in solving them. • Reason abstractly and quantitatively. • Model with mathematics. • Attend to precision. 			
Quarter 3 Jan to March	Chapter 14 – Geometry			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 1 - Draw Points, Lines, and Rays.</p> <p>4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Connect viable argument and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. 	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<p>I can draw points, lines, line segments, and rays and identify these in two-dimensional figures.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • line • line segment • endpoint • point • ray

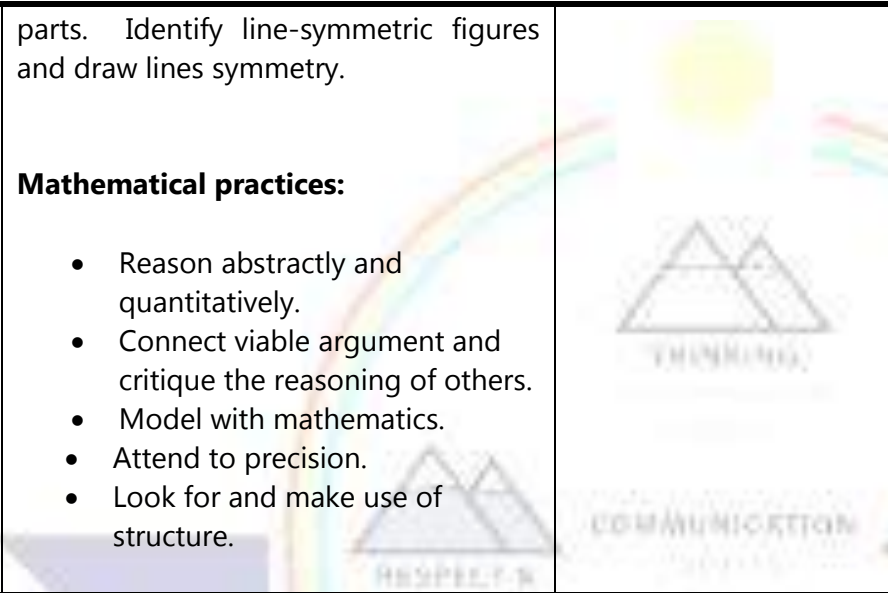

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 2 – Draw Parallel and Perpendicular Lines</p> <p>4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Make sense of problems and persevere. Model with mathematics. Use appropriate tools strategically. Attend to precision. Look for and express regularity in repeated reasoning. 	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>   	<p>I can draw parallel, intersecting, and perpendicular lines and identify these in two-dimensional figures.</p> 	<p>Academic language:</p> <ul style="list-style-type: none"> parallel perpendicular intersecting
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 3 – Hands On: Model Angles</p> <p>4.MD.5a An angle is measured with reference to a circle with its center at the common endpoints of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle.</p>	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p> 	<p>I can understand concepts of angles and angle measurement.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> angle



	<p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Make sense of problems and persevere to solving them. • Connect viable argument and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and express regularity in repeated reasoning. 			
	<p>Lesson 5 – Measure Angles</p> <p>4.MD.6 Measure angles in whole number degree using a protractor.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Construct viable arguments and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. 	<p>How can Geometric measurement understand concepts of angle and measurement angles.</p> 	<p>I can use a protractor to measure angles to the nearest degrees.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • angle

	<ul style="list-style-type: none"> Look for and make use of structure 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 6 – Draw Angles</p> <p>4.MD.6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Construct viable arguments and critique the reasoning of others. Use appropriate tools strategically. Attend to precision. 	<p>How can Geometric measurement understand concepts of angle and measurement angle.</p>	<p>I can use a protractor to draw angles of a specified measure.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> angle ray
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 7 – Solve Problems with Angles</p> <p>4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel.</p> <p>Mathematical practices:</p>	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<p>I can solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical situation.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> angle ray

	<ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Connect viable argument and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 8 – Triangles</p> <p>4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangle.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Connect viable argument and critique the reasoning of others. • Model with mathematics. • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure 	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p> 	<p>I can classify triangles based on angle measure and describe triangles using their attributes.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • acute triangle • obtuse triangle • right triangle

<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 9 – Quadrilaterals</p> <p>4.G.2 Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> Reason abstractly and quantitatively. Model with mathematics. Use appropriate tools strategically. Look for and make use of structure Look for and make use of structure. Attend to precision. 	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<p>I can classify quadrilaterals using their attributes.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> parallelogram rectangle rhombus trapezoid square
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 10 – Draw Lines of Symmetry</p> <p>4.G.3 Recognize a line a symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching</p>	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<p>I can identify figures with line symmetry and draw lines of symmetry.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> Line of symmetry line symmetry

	<p>parts. Identify line-symmetric figures and draw lines symmetry.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Connect viable argument and critique the reasoning of others. • Model with mathematics. • Attend to precision. • Look for and make use of structure. 			
<p>McGraw-Hill My Math:</p> <p>Go Digital at: Connected.mcgraw-hill.com</p>	<p>Lesson 11 – Problem-Solving Investigation: Make a Model</p> <p>4.G.1 Draw points, lines, line segments, rays, angles (right, acute, obtuse) and perpendicular and parallel lines. Identify these in two-dimensional figures.</p> <p>Mathematical practices:</p> <ul style="list-style-type: none"> • Reason abstractly and quantitatively. • Make sense of problems and persevere • Connect viable argument and critique the reasoning of others. • Model with mathematics. 	<p>How can you draw and identify lines and angles, and classify shapes by properties of their lines and angles.</p>	<p>I can solve problems by making a model.</p>	<p>Academic language:</p> <ul style="list-style-type: none"> • angles • line • line-segment • perpendicular lines • parallel lines

	<ul style="list-style-type: none"> • Use appropriate tools strategically. • Attend to precision. • Look for and make use of structure. • Look for and express regularity in repeated reasoning. 			
4th Quarter	Review and Assessments			
	<ol style="list-style-type: none"> 1. Galileo 2. In class tests 3. Arizona Merit 4. AIMS science 5. Reteach specific standards 	