

Ganado Unified School District #20

6th Grade Math

PACING Guide SY 2021-2022

Resources	AZ College and Career Readiness Standard	Essential Question (HESS Matrix)	Learning Goal	Vocabulary (Content/Academic)
1st Quarter				
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>6.RP.A.1 Understand the concept of a ratio and use ratio language between two quantities. For example, “The ratio of wings to beaks in the bird house at the zoo was 2:1, because for every 2 wings there was 1 beak.” “For every vote candidate A received, candidate C received nearly three votes.”</p>	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> Application Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> What are ratios and rates and how are they used in solving problems? 	<p>I will be able to:</p> <ul style="list-style-type: none"> Understand the concept of a ratio. Use ratio language to describe a ratio relationship between two quantities. 	<ul style="list-style-type: none"> ratio terms coordinate plane equivalent ratio
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>6.RP.A.2 Understand the concept of a unit rate a/b associated with a ratio $a : b$ with $b \neq 0$, and use rate language (e.g., for every, for each, for each 1, per) in the context of a ratio relationship. (Complex fractions notations is not expectation for unit rates in this grade level.)</p>	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> Application Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> What are ratios and rates and how are they used in solving problems? 	<p>I will be able to:</p> <ul style="list-style-type: none"> understand the concept of a unit rate a/b associated with a ratio $a:b$ with b not equal to 0 use rate language in the context of a ratio relationship 	<ul style="list-style-type: none"> rate unit rate graph greatest common factor least common multiple

		<ul style="list-style-type: none"> • What procedures can be used to solve proportions? 		
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.RP.A.3 Use ratio and rate reasoning to solve mathematical problems and problems in real-world context (e.g., by reasoning about data collected from measurements, tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).</p> <p>a. Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate planes. Use tables to compare ratios.</p> <p>b. Solve unit rate problems including those involving unit pricing and constant speed.</p> <p>c. Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity). Solve percent problems with the unknown in all positions of the equation.</p> <p>d. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.</p>	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 • DOK Level 3 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are ratios and rates and how are they used in solving problems? • What procedures can be used to solve proportions? • What is the meaning of percent? • How can percent be estimated and found? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations • make tables of equivalent ratios relating quantities with whole-number measurements • find missing values in the tables • plot the pairs of values on the coordinate plane • use tables to compare ratios • solve unit rate problems including those involving unit pricing and constant speed • find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity) • solve problems involving finding the whole, given a part and the percent • use ratio reasoning to convert measurement units • manipulate units appropriately when 	<ul style="list-style-type: none"> • proportion • fraction • decimal • percent • ordered pair • rate • unit rate • origin • prime factorization • scaling • x-axis • y-axis • x-coordinate • y-coordinate • capacity • meter • gram • liter • kilo- • centi- • milli-

			multiplying or dividing quantities <ul style="list-style-type: none"> transform units appropriately when multiplying or dividing quantities 	
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS connected.mcgraw-hill (Online) 	6.NS.A.1 Interpret and compute quotients of fractions to solve mathematical problems and problems in real-world context involving division of fractions by fractions using visual fraction models and equations to represent the problem. <i>For example, create a story context for $2/3 \div 3/4$ and use a visual fraction model to show the quotient; use the relationship between multiplication and division to explain that $2/3 \div 3/4 = 8/9$ because $3/4$ of $8/9$ is $2/3$. In general, $a/b \div c/d = ad/bc$.</i>	Bloom's Taxonomy: <ul style="list-style-type: none"> Application HESS Matrix: <ul style="list-style-type: none"> DOK Level 2 Essential Question(s): <ul style="list-style-type: none"> How can numbers be broken apart into factors? How can fractions be represented and simplified? How are decimals and fractions related? What are standard procedures for estimating and finding <u>products</u> of fractions and mixed numbers? What are standard procedures for estimating and finding <u>quotients</u> of fractions and mixed numbers? 	I will be able to: <ul style="list-style-type: none"> interpret quotients of fractions compute quotients of fractions solve word problems involving division of fractions by fractions 	<ul style="list-style-type: none"> fraction numerator denominator equivalent fractions simplest form; lowest terms; simplifying; reducing proper fraction improper fraction mixed number terminating decimal repeating decimal like denominators unlike denominators least common denominator (LCD) reciprocals
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board 	6.NS.B.2 Fluently divide multi-digit numbers using a standard algorithm.	Bloom's Taxonomy: <ul style="list-style-type: none"> Application HESS Matrix: <ul style="list-style-type: none"> DOK Level 2 	I will be able to: <ul style="list-style-type: none"> subtract with regrouping multiply multi-digit numbers divide multi-digit numbers use standard algorithm 	<ul style="list-style-type: none"> divisor dividend quotient traditional method partial quotients

<ul style="list-style-type: none"> • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 		<p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are whole numbers place values? • How can whole numbers be written, compared, and ordered? 	<ul style="list-style-type: none"> • use algebra notation to show different ways to write multiplication and division 	<ul style="list-style-type: none"> • double down division
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.B.3 Fluently add, subtract, multiply, and divide multi-digit decimals using a standard algorithm for each operation.</p>	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are whole numbers/decimal place values? • How can whole numbers/decimals be written, compared, and ordered? • How are sums and differences involving decimals estimated and found? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • add multi-digit decimals • subtract multi-digit decimals • multiply multi-digit decimals • divide multi-digit decimals • use standard algorithm 	<ul style="list-style-type: none"> • decimal • tenths • hundredths • thousandths • periods • estimate • rounding • compatible numbers • terminating decimals • repeating decimals • non-terminating decimal
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.B.4 Use previous understanding of factors to find the greatest common factor and the least common multiple.</p> <ol style="list-style-type: none"> Find the greatest common factor of two whole numbers less than or equal to 100. Find the least common multiple of two whole 	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can numbers be broken apart into factors? • How can fractions be represented and simplified? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • find the GCF of two whole numbers less than or equal to 100. • find the LCM of two whole numbers less than or equal to 12. • use the distributive property to express the sum of 2 whole numbers 	<ul style="list-style-type: none"> • factor • multiple • divisible • prime number • composite number • prime factorization • factor tree • greatest common factor (GCF)

	<p>numbers less than or equal to 12.</p> <p>c. Use the distributive property to express a sum of two whole numbers 1 to 100 with a common factor as a multiple of a sum of two whole numbers with no common factor. <i>For example, express $36 + 8$ as $4(9+2)$.</i></p>	<ul style="list-style-type: none"> • What are standard procedures for estimating and finding sums and differences of fractions and mixed numbers? 		<ul style="list-style-type: none"> • common multiple • least common multiple (LCM)
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2nd Quarter				
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.C.5 Understand that positive and negative numbers are used together to describe quantities having opposite directions or values. Use positive and negative numbers to represent quantities in real-world context, explaining the meaning of 0 in each situation.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How are integers related to whole numbers? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • understand that +/- numbers are used to describe quantities having opposite directions or values • use +/- numbers to represent quantities in real-world context • explain the meaning of 0 in each situation 	<ul style="list-style-type: none"> • opposites • integer(s) • absolute value
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.C.6 Understand a rational number can be represented as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.</p> <p>a. Recognize opposite signs of numbers as indicating locations on opposite sides of 0 on the number line;</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How are integers related to whole numbers? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • understand a rational number as a point on the number line • extend number line diagrams and coordinate axes familiar from previous grades • recognize opposite signs of numbers indicating locations on opposite sides of 0 	<ul style="list-style-type: none"> • opposites • integer(s) • absolute value • rational number(s) • coordinate plane • axes • x-axis • y-axis • quadrant(s) • order pair(s) • origin

	<p>recognize that the opposite of the opposite of a number is the number itself and that 0 is its own opposite.</p> <p>b. Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.</p> <p>c. Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.</p>		<ul style="list-style-type: none"> recognize that the opposite of the opposite of a number is the number itself understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane recognize that when two ordered pairs differ only by signs, the locations of the points are related by <u>reflections</u> across one or both axes find integers on a horizontal or vertical number line position integers on a horizontal or vertical number line find pairs of integers and other rational numbers on a coordinate plane position pairs of integers and other rational numbers on a coordinate plane 	
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.C.7 Understand ordering and absolute value of rational numbers.</p> <p>a. Interpret statements of inequality as statements about the relative position of two numbers on a number line.</p> <p>b. Write, interpret, and explain statements of order for rational numbers in real-world context.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> Application Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> How are integers related to whole numbers? 	<p>I will be able to:</p> <ul style="list-style-type: none"> understand ordering of rational numbers understand absolute value of rational numbers interpret statements of inequality as statements about the relative position of two numbers on a number line 	<ul style="list-style-type: none"> opposites integer(s) absolute value rational number(s) inequality

	<p>c. Understand the absolute value of a rational number as its distance from 0 on the number line; interpret absolute value as magnitude for a positive or negative quantity in real-world context.</p> <p>d. Distinguish comparisons of absolute value from statements about order in mathematical problems and problems in real-world context.</p>		<ul style="list-style-type: none"> • write statements of order for rational numbers in real-world context • explain statements of order for rational numbers in real-world context • understand the absolute value of a rational number as its distance from 0 on a number line • interpret absolute value as magnitude for a +/- quantity in a real-world situation • distinguish comparisons of absolute value from statements about order 	
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.NS.C.8 Solve mathematical problems and problems in real-world context by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How are integers related to whole numbers? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • solve real-world problems by graphing points in all four quadrants of the coordinate plane • solve mathematical problems by graphing points in all four quadrants of the coordinate plane • include use of coordinates to find distances between points with the same first coordinate or the same second coordinate • include use of absolute value to find distances between points with the same first coordinate or the same second coordinate 	<ul style="list-style-type: none"> • coordinate plane • x-axis • y-axis • quadrant(s) • ordered pairs • origin
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook 	<p>6.EE.A.1</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application 	<p>I will be able to:</p>	<ul style="list-style-type: none"> • standard form • expanded form

<ul style="list-style-type: none"> • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>Write and evaluate numerical expressions involving whole-number exponents.</p>	<ul style="list-style-type: none"> • Evaluation <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 • DOK Level 3 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are whole numbers place values? • How can whole numbers be written, compared, and ordered? 	<ul style="list-style-type: none"> • read and write numbers to trillions in standard, expanded, and word form and give the values of specific digits • write numerical expressions involving whole-number exponents • evaluate numerical expressions involving whole-number exponents 	<ul style="list-style-type: none"> • word form • trillion • period • base • exponent • power • exponential form • squared • cubed • root
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.A.2 Write, read, and evaluate algebraic expressions.</p> <ol style="list-style-type: none"> Write expressions that record operations with numbers and variables. Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, and coefficient); view one or more parts of an expression as a single entity. Evaluate expressions given specific values of their variables. Include expressions that arise from formulas used to solve mathematical problems and problems in real-world context. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to 	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension • Evaluation <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 1 • DOK Level 2 • DOK Level 3 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are algebraic expressions and how can they be written and evaluated? • What arithmetic number relationships, called properties, are always true? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • write expressions in which letters stand for numbers • read expressions in which letters stand for numbers • evaluate expressions in which letters stand for numbers • write expressions that record operations with numbers and with letters standing for numbers • identify parts of an expression using mathematical terms • view one or more parts of an expression as a single entity • evaluate expressions at their specific values of their variables • include expressions that arise from formulas used in real-world problems 	<ul style="list-style-type: none"> • variable • term • variable term • constant term • coefficient • algebraic expression • evaluate • substitution • input/output table • factor

	specify a particular order (Order of Operations).		<ul style="list-style-type: none"> perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses order (Order of Operations) 	
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.A.3 Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression $3(2 + x)$ to produce the equivalent expression $6 + 3x$.</i></p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> What are algebraic expressions and how can they be written and evaluated? What arithmetic number relationships, called properties, are always true? 	<p>I will be able to:</p> <ul style="list-style-type: none"> apply the properties of operations to generate equivalent expressions 	<ul style="list-style-type: none"> commutative property of addition commutative property of multiplication associative property of addition associative property of multiplication identity property of addition identity property of multiplication order of operations distributive property evaluate substitution equation
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board 	<p>6.EE.A.4 Identify when two expressions are equivalent. <i>For example, the expressions $y + y + y$ and $3y$ are equivalent because they name the same number regardless of which number y stands for.</i></p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p>	<p>I will be able to:</p> <ul style="list-style-type: none"> identify when two expression are equivalent 	<ul style="list-style-type: none"> equation addition property of equality subtraction property of equality

<ul style="list-style-type: none"> • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 		<ul style="list-style-type: none"> • What procedures can be used to solve equations? 		<ul style="list-style-type: none"> • multiplication property of equality • division property of equality
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3rd Quarter				
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.B.5 Understand solving an equation or inequality as a process of reasoning to find value(s) of the variables that make that equation or inequality true. Use substitution to determine whether a given number in a specified set makes an equation or inequality true.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How are sums, differences, products, and quotients involving decimals estimated and found? • What procedures can be used to solve equations? • How can equations be graphed? • What patterns can be found in the graph of equations? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • understand solving an equation or inequality as a process of answering a question • use substitution to determine whether a given number in a specified set makes an equation or inequality true 	<ul style="list-style-type: none"> • inequality • inverse relationship
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.B.6 Use variables to represent numbers and write expressions when solving mathematical problems and problems in real-world context; understand that a variable can represent an unknown number or any number in a specified set.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are algebraic expressions and how can 	<p>I will be able to:</p> <ul style="list-style-type: none"> • use variables to represent numbers • write expressions when solving real-world problem • write expressions when solving mathematical problems • understand that a variable can represent an unknown 	<ul style="list-style-type: none"> • variable • coefficient • algebraic expression • inequality • inverse relationship

		<p>they be written and evaluated?</p> <ul style="list-style-type: none"> • What arithmetic number relationships, called properties, are always true? • How are sums, differences, products, and quotients involving decimals estimated and found? • What procedures can be used to solve equations? 	<p>number, or depending on the purpose at hand, any number in a specific set</p>	
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.B.7 Solve mathematical problems and problems in real-world context by writing and solving equations of the form $x + p = q$, $x - p = q$, $px = q$, and $x/p = q$ for cases in which p, q, and x are all non-negative rational numbers.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What procedures can be used to solve equations? • What are standard procedures for estimating and finding quotients of fractions and mixed numbers? • How can equations be graphed? • What patterns can be found in the graphs of equations? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • solve real-world problems by <u>writing</u> equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers • solve mathematical problems by <u>solving</u> equations of the forms $x + p = q$ and $px = q$ for cases which p, q, and x are nonnegative rational numbers 	<ul style="list-style-type: none"> • equation • addition property of equality • subtraction property of equality • multiplication property of equality • division property of equality • inverse relationship
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board 	<p>6.EE.B.8 Write an inequality of the form $x > c$, $x < c$, $x \geq c$, or $x \leq c$ to represent a constraint or condition to solve mathematical problems and problems in real-world context.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 	<p>I will be able to:</p> <ul style="list-style-type: none"> • write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem 	<ul style="list-style-type: none"> • inequality

<ul style="list-style-type: none"> • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>Recognize that inequalities have infinitely many solutions; represent solutions of such inequalities on number lines.</p>	<p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can equations be graphed? • What patterns can be found in the graphs of equations? 	<ul style="list-style-type: none"> • recognize that inequalities of the $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams 	
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.EE.C.9 Use variables to represent two quantities that change in relationship to one another to solve mathematical problems and problems in real-world context. Write an equation to express one quantity (the dependent variable) in terms of the other quantity (the independent variable). Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application • Analysis <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 3 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can equations be graphed? • What patterns can be found in the graph of equations? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • use variables to represent two quantities in a real-world problem that change in relationship to one another • write an equation to express one quantity, thought of as the dependent variable, in terms of the other quantity, thought of as the independent variable • analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the question 	<ul style="list-style-type: none"> • formula • T-table • linear equation • dependent variable • independent variable
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.G.A.1 Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques to solve mathematical problems and problems in real-world context.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What are standard procedures for estimating and finding products of fractions and mixed numbers? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • find the area of right triangles • find the area of other triangles • find the area of special quadrilaterals • find the area of polygons by composing into rectangles • find the area of polygons by decomposing into triangles and other shapes 	<ul style="list-style-type: none"> • vertex • acute angle • right angle • obtuse angle • straight angle • acute triangle • right triangle • obtuse triangle • equilateral triangle • isosceles triangle • scalene triangle

		<ul style="list-style-type: none"> • How can angles be measured, drawn, and classified? • What are special shapes and how can they be described and compared? • What are the meanings of perimeter and area? • How can the perimeter and area of certain shapes be found? 	<ul style="list-style-type: none"> • apply these techniques in the context of solving real-world problems • apply these techniques in the context of solving mathematical problems 	<ul style="list-style-type: none"> • trapezoid • parallelogram • rhombus • rectangle • square • area • length • width • 2-dimensional figures
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.G.A.2 Find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths, and show that the volume is the same as would be found by multiplying the edge lengths of the prism. Understand and use the formula $V = B \cdot h$, where in this case, B is the area of the base ($B = l \times w$) to find volumes of right rectangular prisms with fractional edge lengths in mathematical problems and problems in real-world context.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • What is the meaning of volume and how can volume be found? • What is the meaning of surface area and how can surface area be found? • How can the volume of certain figures be found? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • find the volume of a right rectangular prism with fractional edge lengths by packing it with unit cubes of the appropriate unit fraction edge lengths • show that the volume is the same as would be found by multiplying the edge lengths of the prism • apply the formulas $V = l w h$ and $V = b h$ to find the volumes of right rectangular prisms with fractional edge lengths in the context of solving real-world and mathematical problems 	<ul style="list-style-type: none"> • formula • volume • cube

4th Quarter

<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations 	<p>6.G.A.3 Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p>	<p>I will be able to:</p> <ul style="list-style-type: none"> • draw polygons in the coordinate plane given coordinates for the vertices 	<ul style="list-style-type: none"> • point • line • ray • line segment
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<ul style="list-style-type: none"> Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques to solve mathematical problems and problems in a real-world context.</p>	<ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> How are integers related to whole numbers? How can angles be measured, drawn, and classified? What are special shapes and how can they be described and compared? 	<ul style="list-style-type: none"> use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate apply these techniques in the context of solving real-world and mathematical problems 	<ul style="list-style-type: none"> congruent line segments midpoint intersecting lines plane parallel lines perpendicular lines
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets SMART Board ALEKS <i>connected.mcgraw-hill</i> (Online) 	<p>6.G.A.4 Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find the surface area of these figures. Apply these techniques to solve mathematical problems and problems in real-world context.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> What is the meaning of area? How can the area of certain shapes be found? What is the meaning of volume and how can volume be found? What is the meaning of surface area and how can surface area be found? How can the volume of certain figures be found? 	<p>I will be able to:</p> <ul style="list-style-type: none"> represent three-dimensional figures using nets made up of rectangles and triangles using the nets to find the surface area of these figures apply these techniques in the context of solving real-world and mathematical problems 	<ul style="list-style-type: none"> cone cylinder edge faces net polyhedron prism pyramid sphere vertex surface area length width height 3-dimensional figures
<ul style="list-style-type: none"> McGraw-Hill Math Textbook PowerPoint Presentations Worksheets 	<p>6.SP.A.1 Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for variability in the</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> DOK Level 1 	<p>I will be able to:</p> <ul style="list-style-type: none"> recognize a statistical question as one that anticipates variability in the data related to the question 	<ul style="list-style-type: none"> statistical question

<ul style="list-style-type: none"> • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages</p>	<p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can graphs be used to represent data and answer questions? 	<p>and accounts for it in the answers</p>	
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.SP.A.2 Understand that a set of data collected to answer a statistical question has a distribution whose general characteristics can be described by its center, spread, and overall shape.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 1 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can graphs be used to represent data and answer questions? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • understand that a set of data collected to answer a statistical question has a distribution, which can be described by its center, spread, and overall shape 	<ul style="list-style-type: none"> • data distribution • outlier
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS • <i>connected.mcgraw-hill</i> (Online) 	<p>6.SP.A.3 Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation uses a single number to describe the spread of the data set.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Comprehension <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can graphs be used to represent data and answer questions? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its values vary with a single number 	<ul style="list-style-type: none"> • mean • average • absolute deviation • interquartile range (IQR) • mean absolute deviation
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • ALEKS 	<p>6.SP.B.4 Display and interpret numerical data by creating plots on a number line including histograms, dot plots, and box plots.</p>	<p>Bloom's Taxonomy:</p> <ul style="list-style-type: none"> • Application <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 <p>Essential Question(s):</p>	<p>I will be able to:</p> <ul style="list-style-type: none"> • display numerical data in plots on a number line, including dot plots • display numerical data in plots on a number line, including histograms 	<ul style="list-style-type: none"> • frequency table • histogram • box plot • quartiles • dot plot • number line

<ul style="list-style-type: none"> • <i>connected.mcgraw-hill</i> (Online) 		<ul style="list-style-type: none"> • How can graphs be used to represent data and answer questions? 	<ul style="list-style-type: none"> • display numerical data in plots on a number line, including box plots 	
<ul style="list-style-type: none"> • McGraw-Hill Math Textbook • PowerPoint Presentations • Worksheets • SMART Board • <i>ALEKS</i> • <i>connected.mcgraw-hill</i> (Online) 	<p>6.SP.B.5 Summarize numerical data sets in relation to their context by:</p> <ol style="list-style-type: none"> Reporting the number of observations. Describing the nature of the attribute under investigation including how it was measured and its units of measurement. Giving quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation), as well as describing any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data were gathered. 	<p>Bloom’s Taxonomy:</p> <ul style="list-style-type: none"> • Synthesis <p>HESS Matrix:</p> <ul style="list-style-type: none"> • DOK Level 2 • DOK Level 3 <p>Essential Question(s):</p> <ul style="list-style-type: none"> • How can graphs be used to represent data and answer questions? 	<p>I will be able to:</p> <ul style="list-style-type: none"> • summarize numerical data sets in relation to their context • report the number of observations • describe the nature of the attribute under investigation, including how it was measured and its units of measurement • give quantitative measures of center (median and/or mean) and variability (interquartile range and/or mean absolute deviation) • describe any overall pattern and any striking deviations from the overall pattern with reference to the context in which the data were gathered • relate the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered 	<ul style="list-style-type: none"> • mean • average • median • mode • range • absolute deviation • interquartile range (IQR) • mean absolute deviation