

Middle School Course 1
Khan Academy Video Correlations
By SpringBoard Activity

SB Activity	Khan Academy Video(s)	
Unit 1: Number Concepts		
Activity 1 <i>Whole Numbers and Decimals</i> 1-1 Learning Targets: <ul style="list-style-type: none"> Locate whole numbers and decimals on a number line. Interpret statements of inequality of whole numbers and positive decimals. Order a set of positive whole numbers and decimals. 1-2 Learning Targets: <ul style="list-style-type: none"> Add and subtract multidigit decimals. Solve real-world problems by adding and subtracting decimals. 1-3 Learning Targets: <ul style="list-style-type: none"> Multiply multidigit decimals. Estimate products of decimals. Solve real-world problems by multiplying decimal numbers. 1-4 Learning Targets: <ul style="list-style-type: none"> Divide whole numbers by whole numbers. Estimate quotients of whole numbers. Solve real-world problems by dividing whole numbers. 1-5 Learning Targets: <ul style="list-style-type: none"> Divide decimals by whole numbers. Divide whole numbers and decimals by decimals. Estimate quotients. Solve real-world problems by dividing decimals. 	<i>Comparing and Ordering Whole Numbers and Decimals</i> Decimals: Comparing place values Comparing decimals: place value difference Comparing decimals: difference in largest place value Comparing decimals: ordering from least to greatest Comparing decimals: ordering from smallest to biggest	
	<i>Adding and Subtracting Decimals</i>	
		Adding decimals: example 1 Adding decimals: example 2 Adding decimals: example 3 Adding decimals word problem Subtracting decimals example 1 Subtracting decimals example 2 Adding and subtracting decimals word problem
	<i>Multiplying Decimals</i>	
		Multiplying decimals example Multiplying challenging decimals Multiplying decimals word problem
	<i>Dividing Whole Numbers</i>	
		Dividing by two digits example 2 Dividing completely to get decimal answer
	<i>Dividing Decimals</i>	
		Dividing by a multi-digit decimal Dividing decimals with hundredths Dividing decimals with hundredths example 3
	<i>Prime Factorization</i>	
	Activity 2 <i>Prime Factorization and Exponents</i> 2-1 Learning Targets: <ul style="list-style-type: none"> Determine whether a given whole number is a prime number or a composite number. 	Prime factorization Prime factorization exercise Recognizing prime and composite numbers Prime numbers

<ul style="list-style-type: none"> Express a composite number as a product of prime numbers. <p>2-2 Learning Targets:</p> <ul style="list-style-type: none"> Evaluate a whole number or decimal raised to a whole number exponent. Express prime factorization using exponents when a prime factor occurs more than once. 	<p style="text-align: center;">Exponents</p> <p>Introduction to exponents</p>
<p>Activity 3 <i>Greatest Common Factor and Least Common Multiple</i></p> <p>3-1 Learning Targets:</p> <ul style="list-style-type: none"> Find all the factors of a whole number. Find the greatest common factor of two whole numbers. <p>3-2 Learning Targets:</p> <ul style="list-style-type: none"> Find multiples of a whole number. Find the least common multiple of two or more whole numbers. 	<p style="text-align: center;">Greatest Common Factor</p> <p>Greatest common factor explained</p> <p>Greatest common factor exercise</p> <p>LCM and GCF word problems</p> <p style="text-align: center;">Least Common Multiple</p> <p>Least common multiple exercise</p> <p>Least common multiple exercise 2</p> <p>Least common multiple exercise: 3 numbers</p> <p>LCM and GCF word problems</p>
<p>Activity 4 <i>Fractions and Mixed Numbers</i></p> <p>4-1 Learning Targets:</p> <ul style="list-style-type: none"> Given a proper fraction, find equivalent fractions. Expression proper fractions in simplest form. Locate proper fractions on a number line. <p>4-2 Learning Targets:</p> <ul style="list-style-type: none"> Interpret statements of inequality of proper fractions in terms of a number line and in terms of real-world contexts. Compare proper fractions. Order a set of proper fractions. <p>4-3 Learning Targets:</p> <ul style="list-style-type: none"> Locate mixed numbers on a number line. Convert an improper fraction to a whole number or mixed number. Converting a whole number or mixed number to an improper fraction. <p>4-4 Learning Targets:</p> <ul style="list-style-type: none"> Interpret statements of inequality of mixed numbers in terms of a number line and in terms of real-world contexts. Compare mixed numbers. Order a set of mixed numbers or fractions. 	<p style="text-align: center;">Meaning of Fractions</p> <p>Fractions in lowest terms</p> <p>Visualizing equivalent fractions</p> <p>Equivalent fraction word problem example</p> <p>Equivalent fraction word problem example 2</p> <p>Equivalent fraction word problem example 3</p> <p>Plotting basic fractions on the number line</p> <p style="text-align: center;">Comparing and Ordering Fractions</p> <p>Comparing fractions</p> <p>Comparing and ordering fractions</p> <p>Comparing fractions with greater than and less than symbols</p> <p>Comparing fractions with like numerators and denominators</p> <p>Comparing fractions with different denominators</p> <p style="text-align: center;">Mixed Numbers</p> <p>Mixed numbers and improper fractions</p> <p>Proper and improper fractions</p> <p>Converting mixed numbers to improper fractions</p> <p>Mixed numbers: changing to improper fractions</p>

	<p>Mixed numbers: changing from an improper fraction</p> <p><i>Comparing and Ordering Mixed Numbers</i></p> <p>Comparing improper fractions and mixed numbers</p> <p>Mixed number or improper fraction on a number line</p>
<p>Activity 5 <i>Multiplying Fractions and Mixed Numbers</i></p> <p>5-1 Learning Targets:</p> <ul style="list-style-type: none"> • Multiply a whole number by a fraction less than 1. • Multiply two fractions less than 1. • Estimate the product of a fraction and a whole number. <p>5-2 Learning Targets:</p> <ul style="list-style-type: none"> • Multiply mixed numbers by fractions, whole numbers, and other mixed numbers. • Estimate products involving mixed numbers. 	<p><i>Multiplying Fractions</i></p> <p>Multiplying fractions and whole numbers</p> <p>Multiplying two fractions: an explanation</p> <p>Multiplying two fractions: example</p> <p>Multiplying mixed numbers</p> <p><i>Multiplying Fractions: Word Problems</i></p> <p>Multiplying fractions word problem: movie marathon</p> <p>Multiplying fractions word problem: milk love</p> <p>Multiplying fractions word problem: pigging out on pumpkin pie</p> <p>Multiplying fractions word problem: banana oat muffin recipe</p> <p>Multiplying fractions word problem: laundry emergency</p> <p>Multiplying fractions word problem: bike to a friend</p>
<p>Activity 6 <i>Dividing Fractions and Mixed Numbers</i></p> <p>6-1 Learning Targets:</p> <ul style="list-style-type: none"> • Divide a whole number by a fraction less than 1. • Divide a fraction by a whole number or fraction. • Solve real-world problems by dividing such numbers. <p>6-2 Learning Targets:</p> <ul style="list-style-type: none"> • Divide a mixed number, whole number, or fraction by a mixed number. • Estimate such quotients. • Solve real-world problems by dividing such numbers. 	<p><i>Dividing Fractions</i></p> <p>Dividing whole numbers and fractions: potpourri</p> <p>Dividing whole numbers and fractions: studying</p> <p>Dividing whole numbers and fractions: t-shirts</p> <p>Understanding division of fractions</p> <p>Dividing fractions example</p> <p>Dividing fractions example 2</p> <p>Reciprocal of a mixed number</p>
Unit 2: Integers	
<p>Activity 7 <i>Introduction to Integers</i></p> <p>7-1 Learning Targets:</p> <ul style="list-style-type: none"> • Use integers to represent quantities in real-world contexts. 	<p><i>Negative Numbers</i></p> <p>Negative numbers introduction</p> <p>Negative numbers and number line examples</p> <p>Opposite of a number</p> <p>Negative symbol as opposite</p>

<ul style="list-style-type: none"> Position and identify integers on a number line. Find the opposite of an integer. Find the absolute value of an integer. Classify whole numbers, integers, and positive rational numbers. <p>7-2 Learning Targets:</p> <ul style="list-style-type: none"> Compare and order integers. Interpret statements of inequality of integers in terms of a number line and of real-world contexts. Distinguish comparisons of absolute value from statements about the order of integers. 	<p>Number opposites practice</p> <p>Ordering negative numbers</p> <p style="text-align: center;"><i>Absolute Value</i></p> <p>Absolute value of integers</p> <p>Comparing absolute values</p>
<p>Activity 8 <i>Adding and Subtracting Integers</i></p> <p>8-1 Learning Targets:</p> <ul style="list-style-type: none"> Using models, create several representations of a given integer. Using models, add any two integers with absolute value less than 10. <p>8-2 Learning Targets:</p> <ul style="list-style-type: none"> Add two or more integers. Solve real-world problems by adding integers. <p>8-3 Learning Targets:</p> <ul style="list-style-type: none"> Use models to subtract one integer with absolute value less than 10 from another. Subtract integers. Solve real-world problems by subtracting integers. 	<p style="text-align: center;"><i>Adding and Subtracting Integers</i></p> <p>Learn how to add and subtract negative numbers</p> <p>Adding/subtracting negative numbers</p> <p>Adding negative numbers</p> <p>Adding numbers with different signs</p> <p>Subtracting a negative = adding a positive</p> <p>Negative number word problem</p>
<p>Activity 9 <i>The Coordinate Plane</i></p> <p>9-1 Learning Targets:</p> <ul style="list-style-type: none"> Graph and identify ordered pairs of rational numbers. Understand and use terms such as <i>origin</i>, <i>quadrant</i>, <i>x-axis</i>, <i>first coordinate</i>, and <i>second coordinate</i> associated with graphing on the coordinate plane. <p>9-2 Learning Targets:</p> <ul style="list-style-type: none"> Find the distance between points in the coordinate plane with the same first coordinate or the same second coordinate. Solve real-world and mathematical problems by graphing points in the coordinate plane and finding the distances between them. Find the reflection of a point over one or both axes. 	<p style="text-align: center;"><i>Integers in The Coordinate Plane</i></p> <p>The coordinate plane</p> <p>Coordinate plane: plot ordered pairs</p> <p>Coordinate plane: have all the points been graphed?</p> <p>Coordinate plane: quadrants</p> <p>Coordinate plane: graphing points and naming quadrants</p> <p>Coordinate plane: word problem exercise</p> <p style="text-align: center;"><i>Reflecting Points on the Coordinate Plane</i></p> <p>Coordinate plane: reflecting points</p>
<p>Activity 10</p>	<p style="text-align: center;"><i>Understanding Multiplication of Negative Numbers</i></p>

<p><i>Multiplying and Dividing Integers</i></p> <p>10-1 Learning Targets:</p> <ul style="list-style-type: none"> • Multiply integers. • Solve real-world problems by multiplying integers. <p>10-2 Learning Targets:</p> <ul style="list-style-type: none"> • Divide integers. • Solve real-world problems by dividing integers. 	<p>Why a negative times a negative is a positive</p> <p>Why a negative times a negative makes intuitive sense</p> <hr/> <p style="text-align: center;"><i>Multiplying Integers</i></p> <p>Multiplying positive and negative numbers</p> <p>Dividing positive and negative numbers</p> <p>Multiplying numbers with different signs</p>
<p>Unit 3: Expressions and Equations</p>	
<p>Activity 11</p> <p><i>Expressions</i></p> <p>11-1 Learning Targets:</p> <ul style="list-style-type: none"> • Use the order of operations to simplify expressions involving addition, subtraction, multiplication, and division. • Use the order of operations to simplify expressions involving whole number exponents and parentheses. <p>11-2 Learning Targets:</p> <ul style="list-style-type: none"> • Use variables to represent numbers and write expressions to solve problems. • Evaluate expressions containing variables. <p>11-3 Learning Targets:</p> <ul style="list-style-type: none"> • Use variables to represent quantities. • Write expressions to represent quantities. <p>11-4 Learning Targets:</p> <ul style="list-style-type: none"> • Apply the properties of operations to generate equivalent expressions. • Identify when two expressions are equivalent. 	<p style="text-align: center;"><i>Order of Operations</i></p> <p>Introduction to order of operations</p> <p>Order of operations example</p> <p>Order of operations example: putting it all together</p> <p>Order of operations: PEMDAS</p> <hr/> <p style="text-align: center;"><i>Evaluating Algebraic Expressions</i></p> <p>What is a variable?</p> <p>Expression terms, factors and coefficients</p> <p>Evaluating an expression example</p> <p>Evaluating an expression using substitution</p> <p>Evaluating an expression with exponents</p> <hr/> <p style="text-align: center;"><i>Writing Expressions</i></p> <p>Writing simple algebraic expressions</p> <p>Writing algebraic expressions</p> <p>Writing algebraic expressions example 2</p> <hr/> <p style="text-align: center;"><i>Properties of Operations</i></p> <p>Commutative property for addition</p> <p>Commutative law of addition</p> <p>Commutative law of multiplication</p> <p>Associative law of addition</p> <p>Associative law of multiplication</p> <p>Properties of numbers 1</p> <p>Number properties terminology 1</p> <p>Identity property of 1</p> <p>Identity property of 1 (second example)</p> <p>Identity property of 0</p> <p>Inverse property of addition</p>

	Inverse property of multiplication Properties of numbers 2
Activity 12 <i>Equations</i> 12-1 Learning Targets: <ul style="list-style-type: none"> Write one-variable, one-step equations to represent situations. Distinguish between expressions and equations. 12-2 Learning Targets: <ul style="list-style-type: none"> Understand what it means to solve an equation. Use substitution to determine which values from a specified set make an equation true. 	Equation Basics Variables, expressions, and equations Representing a relationship with a simple equation Testing solutions to equation
Activity 13 <i>Solving Addition and Subtraction Equations</i> 13-1 Learning Targets: <ul style="list-style-type: none"> Write a one-step addition equation to model a situation. Solve an addition equation of the form $x + a = b$, where a, b, and x are all nonnegative integers. 13-2 Learning Targets: <ul style="list-style-type: none"> Write addition equations to represent situations. Solve one-step addition equations of the form $x + a = b$, where a, b, and x are all nonnegative rational numbers. Given an equation of the form $x + a = b$, where a, b, and x are all nonnegative rational numbers, write a corresponding real-world problem. 13-3 Learning Targets: <ul style="list-style-type: none"> Write a subtraction equation to represent a situation. Solve a subtraction equation of the form $x - a = b$, where a, b, and x are all nonnegative rational numbers. 13-4 Learning Targets: <ul style="list-style-type: none"> Write subtraction equations to represent situations. Solve subtraction equations by adding the same number to both sides of the equation. Given an equation of the form $x - a = b$, where a, b, and x are all nonnegative rational numbers, write a corresponding real-world problem. 	Solving Equations with Addition and Subtraction Simple equations of the form $x + a = b$ Adding and subtracting from both sides of an equation
Activity 14	Solving Equations with Multiplication and Division

<p><i>Solving Multiplication and Division Equations</i></p> <p>14-1 Learning Targets:</p> <ul style="list-style-type: none"> • Write a one-step multiplication equation to model a situation. • Solve a multiplication equation of the form $ax=b$, where a, b, and x are all positive integers. <p>14-2 Learning Targets:</p> <ul style="list-style-type: none"> • Write multiplication equations to represent situations. • Solve a multiplication equation of the form $ax=b$, where a, b, and x are all positive rational numbers. • Given an equation of the form $ax=b$, where a, b, and x are all positive rational numbers, write a corresponding real-world problem. <p>14-3 Learning Targets:</p> <ul style="list-style-type: none"> • Write a division equation to represent a situation. • Solve a division equation by multiplying both sides of the equation by the same number. 	<p>Simple equations of the form $ax = b$</p> <p>Simple equations of the form $x/a = b$</p> <p>Dividing from both sides of an equation</p>
<p>Activity 15</p> <p><i>Expressions and Equations</i></p> <p>15-1 Learning Targets:</p> <ul style="list-style-type: none"> • Write inequalities to represent constraints or conditions within problems. • Use substitution to determine whether a given number makes an inequality true. • Graph solution sets of inequalities. • Given an inequality, write a corresponding real-world problem. <p>15-2 Learning Targets:</p> <ul style="list-style-type: none"> • Write one-step inequalities to represent constraints or conditions within problems. • Use substitution to determine whether a given number makes an inequality true. • Solve one-step inequalities. • Graph the solution sets of one-step inequalities. 	<p><i>Representing Situations with Inequalities</i></p> <p>Inequalities: plotting on a number line</p> <p>A simple inequality: plotting on a number line</p> <p>Testing solutions to inequalities</p> <p>Inequality word problems</p> <p>Inequality word problem: one variable</p> <p>Constructing and solving a one-step inequality</p> <hr/> <p><i>Solving One-Step Inequalities</i></p> <p>One-step inequality involving addition</p> <p>Inequalities using addition and subtraction</p> <p>Multiplying and dividing with inequalities</p> <p>Multiplying and dividing with inequalities example</p>
<p>Activity 16</p> <p><i>Expressions and Equations</i></p> <p>16-1 Learning Targets:</p> <ul style="list-style-type: none"> • Create a table representing a relationship given a verbal description. • Write an equation to represent a relationship given a verbal description or table. • Investigate rate of change. • Graph equations of the form $y=ax$. 	<p><i>Tables of Values and Graphing</i></p> <p>Dependent and independent variables exercise: the basics</p> <p>Dependent and independent variables exercise: graphing the equation</p> <p>Dependent and independent variables exercise: express the graph as an equation</p>

<p>16-2 Learning Targets:</p> <ul style="list-style-type: none"> Graph equations of the form $y = kx$ or $y = x + b$. Create a table and graph a relationship given a verbal description. Explain how one variable depends on another variable. Describe a relationship given a graph. 	
Unit 4: Ratios	
<p>Activity 17 <i>Understanding Ratios</i></p> <p>17-1 Learning Targets:</p> <ul style="list-style-type: none"> Understand the concept of a ratio and use ratio language. Represent ratios with concrete models, fractions, and decimals. Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute. <p>17-2 Learning Targets:</p> <ul style="list-style-type: none"> Make tables of equivalent ratios relating quantities. Use tables to compare ratios. Plot the pairs of values on the coordinate plane and describe the relationship. 	<p style="text-align: center;">Understanding Ratio</p> <p>Introduction to ratios</p> <p>Ratios as fractions</p> <p style="text-align: center;"><i>Ratios in Proportional Relationships \: Solving Ratio Problems</i></p> <p>Ratio word problem: boys to girls</p> <p>Ratio word problem: centimeters to kilometers</p> <p>Solving ratio problems with tables example 1</p> <p>Solving ratio problems with tables example 2</p> <p>Solving ratio problems with graph</p>
<p>Activity 18 <i>Reasoning with Ratios</i></p> <p>18-1 Learning Targets:</p> <ul style="list-style-type: none"> Use ratio and rate reasoning to solve problems. Use ratio reasoning to convert measurement units. Apply quantitative reasoning, including predicting and comparing to solve real-world problems involving ratios and rates. <p>18-2 Learning Targets:</p> <ul style="list-style-type: none"> Use ratio and rate reasoning to solve problems by reasoning about double number line diagrams and equations. Use ratio reasoning to convert measurement units. Represent mathematical and real-world problems involving ratios and rates using scale factors and proportions. 	<p style="text-align: center;">Unit Conversions</p> <p>Converting pounds to ounces</p> <p>Converting yards to inches</p> <p style="text-align: center;"><i>Unit Conversions: Real-World Examples</i></p> <p>Unit conversion word problem: roadtrip</p> <p>Unit conversion word problem: drug dosage</p> <p>Unit conversion word problem: yards to inches</p>
<p>Activity 19 <i>Rates and Unit Rates</i></p> <p>19-1 Learning Targets:</p> <ul style="list-style-type: none"> Understand the concept of a unit rate $\frac{a}{b}$ associated with the ratio $a : b$ with $b \neq 0$. 	<p style="text-align: center;">Unit Rates</p> <p>Solving unit rates problem</p> <p>Solving unit price problem</p>

<ul style="list-style-type: none"> • Use rate language in the context of a ratio relationship. • Give examples of rates at the comparison by division of two quantities having different attributes. <p>19-2 Learning Targets:</p> <ul style="list-style-type: none"> • Solve unit rate problems. • Convert units within a measurement system, including the use of proportions and unit rates. <p>19-3 Learning Targets:</p> <ul style="list-style-type: none"> • Use ratio and rate reasoning to solve problems. • Represent mathematical and real-world problems involving ratios and rates using scale factors and proportions. 	
<p>Activity 20 <i>Using Models to Understand Percents</i></p> <p>20-1 Learning Targets:</p> <ul style="list-style-type: none"> • Find a percent of a quantity as a rate per 100. • Represent ratios and percents with concrete models and decimals. • Represent benchmark fractions and percents. • Generate equivalent forms of decimals and percents. <p>20-2 Learning Targets:</p> <ul style="list-style-type: none"> • Represent ratios and percents with fractions and decimals. • Represent benchmark percents such as 1%, 10%, 25%, $33\frac{1}{3}\%$, and multiples of these values using number lines and numbers. • Use percents, fractions, and decimals to show parts of the same whole. <p>20-3 Learning Targets:</p> <ul style="list-style-type: none"> • Find a percent of a quantity as a rate per 100. • Generate equivalent forms of fractions, decimals, and percents using real-world problems. • Represent percents with concrete models, fractions, and decimals. 	<p style="text-align: center;"><i>Understanding Percent</i></p> <p>The meaning of percent</p> <p>The meaning of percent over 100</p> <p>Percentage of a whole number</p> <p style="text-align: center;"><i>Percent, Fractions, and Decimals</i></p> <p>Converting percent to decimal and fraction</p> <p>Converting decimals to percents</p> <p>Converting decimals to percents example 2</p> <p>Converting percents to decimals</p> <p>Converting percents to decimals example 2</p> <p style="text-align: center;"><i>Finding Percents</i></p> <p>Finding a percentage</p>
<p>Activity 21 <i>Applying Percents</i></p> <p>21-1 Learning Targets:</p>	<p style="text-align: center;"><i>Percents: Real-World Problems</i></p> <p>Percent word problem example 1</p>

<ul style="list-style-type: none"> Solve real-world problems to find the percent, given the part and the whole. Use ratio and rate reasoning to solve real-world and mathematical problems . <p>21-2 Learning Targets:</p> <ul style="list-style-type: none"> Solve real-world problems to find the part, given the whole and the percent. Use ratio and rate reasoning to solve real-world and mathematical problems. <p>21-3 Learning Targets:</p> <ul style="list-style-type: none"> Solve problems to find the whole given a part and the percent. Represent ratios and percents with fractions and decimals. Represent benchmark percents such as 1%, 10%, 25%, and $33\frac{1}{3}\%$, and multiples of these values using number lines and numbers. Use equivalent percents, fractions, and decimals to show parts of the same whole. 	<p>Percent word problem example 2</p> <p>Percent word problem example 3</p> <p>Percent word problem example 4</p> <p>Percent word problem example 5</p>
Unit 5: Geometric Concepts	
<p>Activity 22 <i>Angles and Triangles</i></p> <p>22-1 Learning Targets:</p> <ul style="list-style-type: none"> Determine when three side lengths form a triangle. Use the Triangle Inequality Property. Classify triangles by side length. <p>22-2 Learning Targets</p> <ul style="list-style-type: none"> Classify angles by their measures. Classify triangles by their angles. Recognize the relationship between the lengths of sides and measures of angles in a triangle. Recognize the sum of angles in a triangle. 	<p style="text-align: center;"><i>Properties of Triangles and Side Length</i></p> <p>Triangles: categorization by angle or equal sides.</p> <hr/> <p style="text-align: center;"><i>Properties of Triangles and Angle Measure</i></p> <p>Triangles: using angles to categorize</p> <hr/> <p style="text-align: center;"><i>Triangle Inequality Theorem</i></p> <p>Triangle inequality theorem</p>
<p>Activity 23 <i>Area and Perimeter of Polygons</i></p> <p>23-1 Learning Targets:</p> <ul style="list-style-type: none"> Define and classify quadrilaterals based on their properties. Use properties of quadrilaterals to determine missing side lengths and angle measures. 	<p style="text-align: center;"><i>R Quadrilaterals</i></p> <p>Quadrilateral overview</p> <p>Quadrilateral properties</p> <p>Quadrilaterals: find the type exercise</p> <p>Quadrilaterals: classifying shapes</p> <hr/> <p style="text-align: center;"><i>Quadrilaterals: Perimeter and Area</i></p>

<p>23-2 Learning Targets:</p> <ul style="list-style-type: none"> • Model the area of a parallelogram by decomposing into triangles. • Find the area of special quadrilateral by decomposing into triangles. • Write equations that represent problems related to the area of parallelograms and rectangles. • Solve problems involving the area of parallelograms and rectangles. • Find the area of special quadrilaterals and polygons by composing into rectangles or decomposing into triangles and other shapes. <p>23-3 Learning Targets</p> <ul style="list-style-type: none"> • Model area formulas for parallelograms, trapezoids, and triangles. • Write equations that represent problems related to the area of trapezoids and triangles. • Find the area of triangles, special quadrilaterals, and polygons. • Model area formulas by decomposing and rearranging parts. 	<p>Perimeter and area: the basics</p> <p>Area of a parallelogram</p> <p>Area of a trapezoid</p> <p>Finding area by rearranging parts</p> <p>Finding area by breaking up the shape</p> <p>Area of strange quadrilateral</p> <p>Perimeter of a parallelogram</p> <p>Perimeter and area of a non-standard polygon</p>
<p>Activity 24 <i>Polygons on the Coordinate Plane</i></p> <p>24-1 Learning Targets:</p> <ul style="list-style-type: none"> • Draw polygons in the coordinate plane given vertex coordinates. • Find the length of a segment joining points with the same first coordinate or the same second coordinate. • Use coordinate geometry to identify locations on a plane. • Graph points in all four quadrants. • Solve problems involving the area on the coordinate plane. <p>24-2 Learning Targets:</p> <ul style="list-style-type: none"> • Use coordinate geometry to identify locations on a plane. • Graph points in all four quadrants. • Solve problems involving the area of parallelograms, trapezoids, and triangles. 	<p><i>Quadrilaterals on the Coordinate Plane</i></p> <p>Parallelogram on the coordinate plane</p> <p>Quadrilateral on the coordinate plane</p>
<p>Activity 25 <i>Nets and Surface Area</i></p> <p>25-1 Learning Targets:</p>	<p><i>Nets and Surface Area</i></p> <p>Nets of polyhedra</p>

<ul style="list-style-type: none"> • Represent three-dimensional figures using nets. • Use nets to find the surface area of figures. • Write equations that represent problems related to the area of rectangles. • Determine solutions for problems involving the area of rectangles. <p>25-2 Learning Targets:</p> <ul style="list-style-type: none"> • Represent three-dimensional figures using nets. • Use nets to find the surface area of figures. • Write equations that represent area problems. • Solve problems involving the area of rectangles and triangles. 	<p>Finding surface area: nets of polyhedra</p>
<p>Activity 26 <i>Volume</i></p> <p>26-1 Learning Targets:</p> <ul style="list-style-type: none"> • Find the volume of a right rectangular prism with fractional edge lengths. • Write equations that represent problems related to the volume of right rectangular prisms. <p>26-2 Learning Targets:</p> <ul style="list-style-type: none"> • Write equations that represent problems related to the volume of right rectangular prisms. • Apply the formulas $V = lwh$ and $V = bh$ to find the volumes of right rectangular prisms. 	<p style="text-align: center;"><i>Finding Volume</i></p> <p>Volume: how measure it</p> <p>Volume: measuring with unit cubes</p> <p>Volume: measuring as area times length</p> <p>Volume of a rectangular prism</p> <p>Volume of a rectangular prism: fractional cubes</p> <p>Volume word problem</p>
Unit 6: Data Analysis	
<p>Activity 27 <i>Summarizing Data Graphically</i></p> <p>27-1 Learning Targets:</p> <ul style="list-style-type: none"> • Identify statistical questions. • Interpret the variability of data collected from a survey. <p>27-2 Learning Targets:</p> <ul style="list-style-type: none"> • Identify types of statistical variables. • Write statistical questions. • Construct graphs to represent statistical data. 	<p style="text-align: center;"><i>Statistical Questions</i></p> <p>Statistical and non statistical questions</p> <hr/> <p style="text-align: center;"><i>Bar Charts</i></p> <p>Creating a bar chart</p> <p>Reading bar charts: comparing two sets of data</p> <p>Reading bar graphs</p>

<p>27-3 Learning Targets:</p> <ul style="list-style-type: none"> Organize data from a statistical question. Determine appropriate graphical representation of data. Describe distributions from graphical representation. 	
<p>Activity 28 <i>Measures of Center</i></p> <p>28-1 Learning Targets:</p> <ul style="list-style-type: none"> Calculate the mean of a data set. Identify outliers of a data set. Construct dot plots. <p>28-2 Learning Targets:</p> <ul style="list-style-type: none"> Find the median. Determine relative position of the mean and median in a distribution. <p>28-3 Learning Targets:</p> <ul style="list-style-type: none"> Construct dot plots. Identify whether the mean or the median should be used to summarize the center of a distribution based upon the shape of the distribution. 	<p style="text-align: center;"><i>Mean, Median, Mode</i></p> <p>Statistics intro: Mean, median and mode</p> <p>Finding mean, median and mode</p> <p>Exploring the mean and median</p>
<p>Activity 30 <i>Summarizing Numerical Data Graphically</i></p> <p>30-1 Learning Targets:</p> <ul style="list-style-type: none"> Determine the five-number summary for numerical data. Construct a box plot to represent numerical data. Describe numerical data sets using comparative language. <p>30-2 Learning Targets:</p> <ul style="list-style-type: none"> Summarize data using frequency tables. Construct histograms to represent numerical data. <p>30-3 Learning Targets:</p> <ul style="list-style-type: none"> Create class intervals. Construct histograms using class intervals. 	<p style="text-align: center;"><i>Box and Whiskers</i></p> <p>Box and whisker plot</p> <p>Constructing a box and whisker plot</p> <p style="text-align: center;"><i>Histograms</i></p> <p>Histograms</p>