

Wyoming Department of Education Required Virtual Education Course Syllabus

Niobrara County School District # 1

Program Name	Wyoming Virtual Academy	Content Area	MA
Course ID	D-MTH-07BV2-K	Grade Level	7
Course Name	Summit Math 7- Sem 2	# of Credits	
SCED Code		Curriculum Type	K12 Inc

COURSE DESCRIPTION

In K12's Math 7 Summit course, students focus on real-world scenarios and mathematical problems involving algebraic expressions and linear equations and begin to apply their understanding of rational numbers with increased complexity. The course lays the foundation for exploring concepts of angle, similarity and congruence, more formally addressed in Math 8, as students work with scale drawings and construct and analyze relationships among geometric figures. Students also develop and apply understandings of proportional relationships.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
5.G.4	Classify two-dimensional figures in a hierarchy based on properties.
6.EE.7	Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p , q and x are all nonnegative rational numbers.
6.SP.5	Summarize numerical data sets in relation to their context, such as by: a. Reporting the number of observations. b. Describing the nature of the attribute under investigation, including how it was measured and its units of measurement. c. 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 was gathered. d. Relating the choice of measures of center and variability to the shape of the data distribution and the context in which the data was gathered.
7.EE.1	Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
7.EE.2	Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."
7.EE.4a	Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p , q , and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?
7.EE.4b	Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p , q , and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example, As a salesperson, you are paid \$50 per week plus \$3 per sale. This week

	you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.
7.G.1	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
7.G.2	Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
7.G.3	Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.
7.G.4	Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
7.G.5	Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
7.G.6	Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
7.SP.1	Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.
7.SP.2	Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.
7.SP.3	Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.
7.SP.5	Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.
7.SP.6	Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
7.SP.7a	Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.
7.SP.8a	Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
7.SP.8c	Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS	
Course Introduction			
Readiness Checkpoint			
Unit 1: Expressions and Equations Lesson 1: Exchange Ideas		Determine whether two linear expressions are equivalent.	
Unit 1: Expressions and Equations Lesson 2: Work with Linear Expressions 1	7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	S	
Unit 1: Expressions and Equations Lesson 3: Work with Linear Expressions 2	7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	C	
Unit 1: Expressions and Equations Lesson 4: Add and Subtract Linear Expressions	7.EE.A.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.	Add and subtract linear expressions	
Unit 1: Expressions and Equations Lesson 5: Equivalent Linear Expressions	7.EE.A.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related. For example, $a + 0.05a = 1.05a$ means that "increase by 5%" is the same as "multiply by 1.05."	Determine whether linear expressions are equivalent.	
Unit 1: Expressions and Equations Lesson 6: Solve Linear Equations with Addition and Subtraction	6.EE.B.7: Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	Solve linear equations using the addition property of equality. Solve linear equations using the subtraction property of equality	
Unit 1: Expressions and Equations Lesson 7: Solve Linear Equations with Multiplication and Division	6.EE.B.7: Solve real-world and mathematical problems by writing and solving equations of the form $x + p = q$ and $px = q$ for cases in which p, q and x are all nonnegative rational numbers.	Solve linear equations using the multiplication property of equality. Solve linear equations using the division property of equality.	
Unit 1: Expressions and Equations Lesson 8: Your Choice			
Unit 1: Expressions and Equations Lesson 9: Solve Multistep Linear Equations 1	7.EE.B.4.a: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and	Solve linear equations with more than one step.	

	<p>inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</p>	
<p>Unit 1: Expressions and Equations Lesson 10: Solve Multistep Linear Equations 2</p>	<p>7.EE.B.4.a: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</p>	<p>Use the distributive property in the solution of a linear equation.</p>
<p>Unit 1: Expressions and Equations Lesson 11: Model with Linear Equations</p>	<p>7.EE.B.4.a: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where p, q, and r are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. For example, The perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?</p>	<p>Use a problem-solving plan to solve real-world problems. Solve real-world problems by writing and solving linear equations.</p>
<p>Unit 1: Expressions and Equations Lesson 12: Solve Linear Inequalities</p>	<p>7.EE.B.4.b: Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem. For example, As a salesperson, you are paid \$50 per</p>	<p>Solve multi-step linear inequalities.</p>

	week plus \$3 per sale. This week you want your pay to be at least \$100. Write an inequality for the number of sales you need to make, and describe the solutions.	
Unit 1: Expressions and Equations Lesson 13: Model with Linear Inequalities		Solve real-world problems by writing and solving linear inequalities. Graph the solution of a linear inequality using a number line.
Unit 1: Expressions and Equations Lesson 14: Unit Review		
Unit 1: Expressions and Equations Lesson 15: Unit Test		
Unit 1: Expressions and Equations Lesson 16: Extended Problems		Solve real-world problems by writing and solving equations in the form $p(x + q) = r$, where p , q , r , and x are all rational numbers. Solve real-world problems by writing and solving equations in the form $px + q = r$, where p , q , r , and x are all rational numbers. Graph the solution of an inequality. Solve real-world problems by writing and solving inequalities in the form $px + q < r$ or $px + q > r$, where p , q , r , and x are all rational numbers. Interpret the solution of an inequality in the context of a given problem. Justify the steps for solving two-step linear equations and equalities.
Unit 2: Two-Dimensional Geometry Lesson 1: Exchange Ideas	7.G.A.1: Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Identify parts of a circle. Solve problems involving the relationship between the radius and the diameter of a circle.
Unit 2: Two-Dimensional Geometry Lesson 2: Scale Factor	7.G.A.1: Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Use a scale factor to classify a dilation as a reduction or an enlargement. Determine the scale factor of a dilation. Use a scale factor to determine missing side lengths of dilated figures.
Unit 2: Two-Dimensional Geometry Lesson 3: Scale Factor Applications	5.G.B.4: Classify two-dimensional figures in a hierarchy based on properties.; 7.G.A.2: Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	Solve real-world problems involving scaled drawings or models.
Unit 2: Two-Dimensional Geometry Lesson 4: Triangles	7.G.A.2: Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a	Classify a triangle by its angle measures. Sketch a triangle when you know its angle measures.

	unique triangle, more than one triangle, or no triangle.	
Unit 2: Two-Dimensional Geometry Lesson 5: Construct Two-Dimensional Figures	7.G.A.2: Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.	Sketch a two-dimensional figure when you know some or all of its measurements.
Unit 2: Two-Dimensional Geometry Lesson 6: Number of Triangles		Use the triangle sum property to determine whether 3 angle measures will create a triangle. Use the triangle inequality property to determine whether 3 side lengths will create a triangle
Unit 2: Two-Dimensional Geometry Lesson 7: Your Choice	7.G.B.5: Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	
Unit 2: Two-Dimensional Geometry Lesson 8: Angle Pairs	7.G.B.5: Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.	Identify supplementary, complementary, vertical, and adjacent angle pairs.
Unit 2: Two-Dimensional Geometry Lesson 9: Solve for Angle Measures	7.G.B.4: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	Find missing angle measures in special angle pairs.
Unit 2: Two-Dimensional Geometry Lesson 10: Circles	7.G.B.4: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	Identify the parts of a circle. Find the length of the radius of a circle when you know the diameter. Find the length of the diameter of a circle when you know the radius.
Unit 2: Two-Dimensional Geometry Lesson 11: Circumference		Find the circumference of a circle. Solve problems involving circumferences of circles
Unit 2: Two-Dimensional Geometry Lesson 12: Circumference and Perimeter Applications	7.G.B.4: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	Find the perimeter of a part of a circle. Find the perimeter of a composite figure
Unit 2: Two-Dimensional Geometry Lesson 13: Your Choice	7.G.B.4: Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.	
Unit 2: Two-Dimensional Geometry Lesson 14: Area of a Circle	7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles,	Find the area of a circle.

	quadrilaterals, polygons, cubes, and right prisms.	
Unit 2: Two-Dimensional Geometry Lesson 15: Area of Partial Circles		Find the area of a part of a circle.
Unit 2: Two-Dimensional Geometry Lesson 16: Areas of Composite Figures		Find the area of a composite figure.
Unit 2: Two-Dimensional Geometry Lesson 17: Unit Review		
Unit 2: Two-Dimensional Geometry Lesson 18: Unit Test		
Unit 2: Two-Dimensional Geometry Lesson 19: Extended Problems		<p>Solve real-world problems involving scaled drawings or models.</p> <p>Determine whether one, more than one, or no triangle can be constructed based on given measures of three angles or sides.</p> <p>Write an equation, using facts about supplementary, complementary, vertical, and adjacent angles, to determine the unknown angle in a figure.</p> <p>Solve real-world problems involving circumferences of circles.</p> <p>Solve real-world problems involving areas of circles.</p> <p>Solve problems involving areas of figures composed of partial circles or partial or complete circles and rectangles.</p>
Interim Checkpoint 3		
Your Choice	<p>7.G.A.3: Describe the two-dimensional figures that result from slicing three-dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.; 7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>	
Unit 3: Three-Dimensional Geometry Lesson 1: Exchange Ideas	<p>7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.</p>	<p>Determine the surface area of a cube.</p> <p>Solve real-world problems involving surface areas of cubes.</p> <p>Determine the surface area of a right rectangular prism.</p> <p>Solve real-world problems involving surface areas of right rectangular prisms</p>
Unit 3: Three-Dimensional Geometry Lesson 2: Slice Solids	<p>7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects</p>	<p>Identify cross sections of solid figures.</p> <p>Find the area of a cross section</p>

	composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	
Unit 3: Three-Dimensional Geometry Lesson 3: Surface Area 1	7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Find the surface area of a cube. Find the surface area of a rectangular prism
Unit 3: Three-Dimensional Geometry Lesson 4: Surface Area 2		Find the surface area of a complex solid. Solve real-world problems involving surface area
Unit 3: Three-Dimensional Geometry Lesson 5: Volume 1	7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Find the volume of a cube. Find the volume of a rectangular prism
Unit 3: Three-Dimensional Geometry Lesson 6: Volume 2	7.G.B.6: Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.	Find the volume of a complex solid. Solve real-world problems involving volume
Unit 3: Three-Dimensional Geometry Lesson 7: Your Choice		
Unit 3: Three-Dimensional Geometry Lesson 8: Properties of Volume and Surface Area 1		Write the surface area ratio of two solids. Find surface areas of enlargements and reductions using scale factors.
Unit 3: Three-Dimensional Geometry Lesson 9: Properties of Volume and Surface Area 2		Write the volume ratio of two solids. Find volumes of enlargements and reductions using scale factors
Unit 3: Three-Dimensional Geometry Lesson 10: Unit Review		
Unit 3: Three-Dimensional Geometry Lesson 11: Unit Test	6.SP.B.5.c: Summarize numerical data sets in relation to their context, such as by: c. 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 was gathered.	
Unit 3: Three-Dimensional Geometry Lesson 12: Extended Problems	6.SP.B.5.c: Summarize numerical data sets in relation to their context, such as by: c. 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	Describe the two-dimensional figures that result from slicing three-dimensional figures. Determine the area of the two-dimensional figure that results from slicing a three-dimensional figure. Solve real-world problems involving surface areas of cubes. Solve real-world problems involving surface areas of right rectangular prisms.

	with reference to the context in which the data was gathered.	Solve real-world problems involving volumes of cubes. Solve real-world problems involving volumes of right rectangular prisms.
Unit 4: Statistics Lesson 1: Exchange Ideas		Determine the mean of a numerical data set. Determine the median of a numerical data set. Determine the mode of a numerical data set. Determine measures of center, including mean, median, and mode. Determine which measure of center is the best measure for a given data set.
Unit 4: Statistics Lesson 2: Measures of Center	7.SP.A.1: Understand that statistics can be used to gain information about a population by examining a sample of the population; generalizations about a population from a sample are valid only if the sample is representative of that population. Understand that random sampling tends to produce representative samples and support valid inferences.	Determine measures of center including mean, mode, and median. Determine which measure of center best represents the data.
Unit 4: Statistics Lesson 3: Measures of Variability	7.SP.A.2: Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	Determine the mean absolute deviation of a data set. Interpret the mean absolute deviation of a data set.
Unit 4: Statistics Lesson 4: Your Choice	7.SP.A.2: Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.	
Unit 4: Statistics Lesson 5: Sampling	7.SP.A.2: Use data from a random sample to draw inferences about a population with an unknown characteristic of interest. Generate multiple samples (or simulated samples) of the same size to gauge the variation in estimates or predictions. For example, estimate the mean word length in a book by randomly sampling words from the	Identify populations and samples. Determine whether a sample represents the intended population. Determine whether a sample is biased or unbiased. Determine possible sources of a biased sample.

	<p>book; predict the winner of a school election based on randomly sampled survey data. Gauge how far off the estimate or prediction might be.</p>	
<p>Unit 4: Statistics Lesson 6: Draw Inferences from Samples 1</p>	<p>7.SP.B.3: Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.; 7.SP.B.4: Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p>	<p>Use data from a random sample to make inferences.</p>
<p>Unit 4: Statistics Lesson 7: Draw Inferences from Samples 2</p>	<p>7.SP.B.3: Informally assess the degree of visual overlap of two numerical data distributions with similar variabilities, measuring the difference between the centers by expressing it as a multiple of a measure of variability. For example, the mean height of players on the basketball team is 10 cm greater than the mean height of players on the soccer team, about twice the variability (mean absolute deviation) on either team; on a dot plot, the separation between the two distributions of heights is noticeable.; 7.SP.B.4: Use measures of center and measures of variability for numerical data from random samples to draw informal comparative inferences about two populations. For example, decide whether the words in a chapter of a seventh-grade science book are generally longer than the words in a chapter of a fourth-grade science book.</p>	<p>Determine the mean absolute deviation of a numerical data set. Draw inferences about a population, using statistics from a random sample</p>
<p>Unit 4: Statistics Lesson 8: Multiple Samples from a Population</p>		<p>Use data from multiple random samples to make inferences.</p>

<p>Unit 4: Statistics Lesson 9: Your Choice</p>		
<p>Unit 4: Statistics Lesson 10: Compare Line Plots</p>		<p>Compare sets of data using line plots. Find the range of a data set. Compare the center and spread of two data sets.</p>
<p>Unit 4: Statistics Lesson 11: Use Statistical Measures</p>		<p>Use the Means-to-MAD ratio to compare data sets. Calculate the mean of a data set. Calculate the mean absolute deviation (MAD) of a data set.</p>
<p>Unit 4: Statistics Lesson 12: Unit Review</p>		
<p>Unit 4: Statistics Lesson 13: Unit Test</p>		
<p>Unit 4: Statistics Lesson 14: Extended Problems</p>	<p>7.SP.C.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.; 7.SP.C.7.a: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</p>	<p>Determine measures of center, including mean, median, and mode. Determine which measure of center is the best measure for a given data set. Determine the mean absolute deviation of a numerical data set. Interpret the mean absolute deviation of a numerical data set. Determine similarities and differences in two different data sets (including mean, median, range). Draw conclusions from two populations based on their measures of center and spread.</p>
<p>Interim Checkpoint 4</p>	<p>7.SP.C.5: Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around 1/2 indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event.; 7.SP.C.7.a: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the</p>	

	<p>agreement is not good, explain possible sources of the discrepancy.</p> <p>a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</p>	
<p>Your Choice</p>	<p>7.SP.C.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</p>	
<p>Unit 5: Probability Lesson 1: Exchange Ideas</p>	<p>7.SP.C.7.a: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</p>	<p>Determine the experimental probability (or relative frequency) of an event.</p>
<p>Unit 5: Probability Lesson 2: Understand and Find Simple Probability 1</p>	<p>7.SP.C.7.a: Develop a probability model and use it to find probabilities of events. Compare probabilities from a model to observed frequencies; if the agreement is not good, explain possible sources of the discrepancy. a. Develop a uniform probability model by assigning equal probability to all outcomes, and use the model to determine probabilities of events. For example, if a student is selected at random from a class, find the probability that Jane will be selected and the probability that a girl will be selected.</p>	<p>Understand the meaning of probability. Find the probability of simple events.</p>
<p>Unit 5: Probability Lesson 3: Understand and Find Simple Probability 2</p>	<p>7.SP.C.6: Approximate the probability of a chance event by collecting data on the chance process that produces it and observing its long-run relative frequency, and predict the</p>	<p>Understand the meaning of probability. Find the probability of simple events.</p>

	<p>approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.</p>	
<p>Unit 5: Probability Lesson 4: Simple Experimental Probability</p>	<p>7.SP.C.8.a: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.</p>	<p>Find the experimental probability of simple events. Understand the difference between theoretical probability and experimental probability</p>
<p>Unit 5: Probability Lesson 5: Simple Probability Models</p>	<p>7.SP.C.8.a: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. a. Understand that, just as with simple events, the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.; 7.SP.C.8.b: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. b. Represent sample spaces for compound events using methods such as organized lists, tables and tree diagrams. For an event described in everyday language (e.g., "rolling double sixes"), identify the outcomes in the sample space which compose the event.</p>	<p>Find the probability of events in a uniform model. Find the probability of events in a non-uniform model</p>
<p>Unit 5: Probability Lesson 6: Geometric Probability Models</p>	<p>7.SP.C.8.c: Find probabilities of compound events using organized lists, tables, tree diagrams, and simulation. c. Design and use a simulation to generate frequencies for compound events. For example, use random digits as a simulation tool to approximate the answer to the question: If 40% of donors have type A blood, what is the probability that it will take at least 4 donors to find one with type A blood?</p>	<p>Understand how geometric probability differs from theoretical probability. Find geometric probability.</p>
<p>Unit 5: Probability Lesson 7: Experimental Probability Models</p>		<p>Develop probability models to estimate probability.</p>
<p>Unit 5: Probability Lesson 8: Your Choice</p>		
<p>Unit 5: Probability Lesson 9: Compound Probability</p>		<p>Find the probability of compound events.</p>
<p>Unit 5: Probability Lesson 10: Represent Compound Events and Outcomes</p>		<p>Use tree diagrams to find the probability of compound events. Use tables to find the probability of compound events.</p>

<p>Unit 5: Probability Lesson 11: Experimental Probability of Compound Events</p>		<p>Find the experimental probability of compound events.</p>
<p>Unit 5: Probability Lesson 12: Unit Review</p>		
<p>Unit 5: Probability Lesson 13: Unit Test</p>		
<p>Unit 5: Probability Lesson 14: Extended Problems</p>		<p>Determine the probability of simple events. Solve real-world problems using probability and a uniform probability model. Represent sample spaces for compound events, using organized lists, tables, or tree diagrams. Determine the probability of a compound event.</p>
<p>Unit 6: Project: Package Deals Lesson 1: Research the Costs of a Package Deal and Individual Pricing 1</p>		<p>C</p>
<p>Unit 6: Project: Package Deals Lesson 2: Research the Costs of a Package Deal and Individual Pricing 2</p>		<p>C</p>
<p>Unit 6: Project: Package Deals Lesson 3: Analyze Your Package Deal Deal 1</p>		<p>C</p>

<p>Unit 6: Project: Package Deals Lesson 4: Analyze Your Package Deal 2</p>		<p>C</p>
<p>Unit 6: Project: Package Deals Lesson 5: So What Do You Think About Package Deals?</p>		<p>C</p>
<p>Unit 7: Grade 7 Semester A and B Assessments Lesson 1: Semester A Test, Parts 1 and 2</p>		<p>C</p>
<p>Unit 7: Grade 7 Semester A and B Assessments Lesson 2: Your Choice</p>		
<p>Unit 7: Grade 7 Semester A and B Assessments Lesson 3: Semester B Test, Parts 1 and 2</p>		
<p>Unit 7: Grade 7 Semester A and B Assessments Lesson 4: Your Choice</p>		