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RESOURCE OPTIONS LINK : https://drive.google.com/drive/folders/1_J_2EZ9jFi07x_NnMepz4-ZlUUnhPZpP?usp=drive_link

Unit 7 Part 1 : Polynomials

Essential Question(s) : How can simplifying mathematical expressions be useful? How can polynomials be used in the real world?

Big Idea(s) : Operations under Polynomials, Multiplying Special Case Polynomials

Vocabulary : Standard Form, Polynomial, Distributive Method, Box Method, Order of Operations, Special Case, Integers

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to	Connection to Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
	Adding and Subtracting Polynomials A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.APR.1 Understand that polynomials form a system analogous to the integers, namely, that they are closed under the operations of	I can write a polynomial in standard form. I can classify by degree and number of terms of a polynomial in standard form. I can add and subtract polynomial expressions.	Communication	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d B2.1.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	Classwork Informal Observation Exit Ticket	Use highlighter or symbols to show common factors and combine.

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	addition, subtraction, and multiplication; add, subtract, and multiply polynomials.					
	Multiplying Polynomials A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.APR.1 Understand that polynomials form a system analogous to the integers, namely, that they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials.	I can multiply polynomial expressions. I can multiply polynomials using distributive and/or box method. I can multiply by any polynomial size.	Communication Growth Mindset	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	Self Evaluation White Board Practice Homework	Distributive or Box Method
	Multiplying Special Cases A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.APR.1 Understand that polynomials form a system analogous to the integers,	I can recognize special cases when multiply polynomials. I can rewrite polynomials into special cases when multiplying. I can multiply special case polynomials and rewrite them in standard form.	Growth Mindset Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d D1.2.d D2.1.d D2.2.d	Homework White Board Practice Summative Assessment	

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	namely, that they are closed under the operations of addition, subtraction, and multiplication; add, subtract, and multiply polynomials. A.SSE.2 Use the structure of an expression to identify ways to rewrite it.	I can write equations from real world problems. I can solve real world problems using operations of polynomials.		D3.3.d E1.1.d E1.2.d E2.3.d E4.2.d		

Unit 8 : Quadratic Functions

Essential Question(s) : Why is it helpful to represent the same mathematical idea in different ways? How do you choose a model to represent a real world situation? Why is it advantageous to know a variety of ways to solve and graph quadratic functions?

Big Idea(s) : Graphing Quadratics, Characteristics of Quadratics, Modeling Real Life Examples of Quadratics

Vocabulary : Vertex Form, Standard Form, Vertex, Intercepts, Axis of Symmetry, Domain, Range, Direction, Zeros, Modeling, Data Set, Logic

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to	Connection to **Social Emotional Standards** and/or **Social Justice Standards**	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
	Quadratic Function in Vertex Form A.CED.2 Create equations	I can identify the characteristic of a quadratic in vertex form.	Communication Growth Mindset	A2.1.d A3.1.d A3.2.d	Homework White Board	https://www.teacherspayteachers.com/Prod

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	in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales. F.IF.7 Graph functions expressed symbolically and indicate key features of the graph, by hand in simple cases and using technology for more complicated cases. Include applications and how key features relate to characteristics of a situation, making selection of a particular type of function model appropriate. F.BF.3 Identify the effect on the graph of replacing f(x) by f(x) + k, kf(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs.	I can identify the vertex within the vertex form, and explain the direction of the point. I can graph a parabola in vertex form. I can write an equation in vertex form given the vertex and another point. I can write an equation in vertex form from a real world problem.	Critical and Creative Thinking	A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E4.2.d	Practice DESMOS Practice	uct/Quadratic-Word-Problems-Keyword-Poster-1720780 Vertex Form
	Quadratic Functions in Standard Form F.IF.8 Write a function defined by an expression in different but equivalent	I can rewrite an equation in vertex form to standard form. I can compare and switch	Communication Growth Mindset	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d	Homework White Board Practice	Writing from Vertex to Standard Form with Template and Vice Versa

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	forms to reveal and explain different properties of the function. A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression.	between vertex and standard form. I can identify the characteristic of a quadratic in standard form. I can graph a parabola in standard form. I can find the vertex in standard form.		B1.3.d B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E4.2.d	DESMOS Practice Summative Assessment	
	Modeling with Quadratics F.IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. F.IF.7 Graph functions	I can create an equation from real world problems. I can identify the characteristics from a real world problem. I can solve real world problems given in standard and/or vertex form.	Communication Global Awareness Critical and Creative Thinking Empathy	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d C1.3.d C4.3.d D1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E3.1.d E4.2.d	DESMOS Practice Project Presentation Self Evaluation	Real World Application Problems

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	expressed symbolically and indicate key features of the graph, by hand in simple cases and using technology for more complicated cases. Include applications and how key features relate to characteristics of a situation, making selection of a particular type of function model appropriate.					

Unit 7 Part 2 : Factoring Polynomials

Essential Question(s) : How can you find the solution to a math problem? Why do we use different methods to solve math problems?

Big Idea(s) : Factoring Monomials, Factoring Trinomials when a equals 1, Factoring Trinomials when a does not equal 1, Factoring Special Case Trinomials

Vocabulary : Greatest Common Factors, Standard Form, Quadratics, Constant, Coefficient, Trinomial, Square, Radicals

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to Vision of a Lakewood Graduate	Connection to Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
	Factoring (a is 1)	I can identify the integer	Communication	A2.1.d	Classwork	Factor

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	A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.REI.4 Solve quadratic equations in one variable. F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.	factors of the constant, “c”, that add to the coefficient of “b”. I can use the product/sum rule to factor a trinomial. I can use the factoring template to factor a trinomial.		A3.1.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	Exit Ticket White Board Practice Reflection	Monomials with GCF Factor with Template
	Factoring (a is not 1) A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.REI.4 Solve quadratic equations in one variable. F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain	I can identify the integer factors of the product of the leading coefficient and the constant, “a” times “c”, that add to the coefficient of “b”. I can identify the GCF from two or more values. I can use the slide and divide rule to factor a trinomial. I can use the factoring	Communication Growth Mindset Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d	Classwork White Board Practice Homework Summative Assessment	Factor with Template Slide and Divide Method

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	different properties of the function.	template to factor a trinomial.		E4.2.d		
	Factoring Special Cases A.SSE.2 Use the structure of an expression to identify ways to rewrite it. A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. A.REI.4 Solve quadratic equations in one variable. F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.	I can identify special cases of trinomials. I can factor special cases of trinomials using any method.	Communication Growth Mindset Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d D1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E4.2.d	White Board Practice Exit Ticket Self Evaluation Presentation	Factoring with Template

Unit 9 : Solving Quadratic Equations

Essential Question(s) : How do I know when my result is reasonable? How do I decide which strategy will work best in a given problem?

Big Idea(s) : Writing Radical Expressions, Solving Quadratics with Square Roots, Solving Quadratics with Quadratic Formula and Discriminant,

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Solving System of Equations Graphically

Vocabulary : Radicals, Solve, Quadratics, Greatest Common Factor, Quadratic Formula, Discriminants, Zeros, Intercepts

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to	Connection to Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
	Rewriting Radical Expressions A.SSE.1. Interpret expressions that represent a quantity in terms of its context.	I can identify the prime factors of a numerical value. I can rewrite a radical in simplest form using the prime factors. I can use technology to check my solutions.	Communication Critical and Creative Thinking	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d B2.1.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	White Board Practice Homework Exit Ticket	
	Solving Quadratic Equations using Square Root A.REI.4 Solve quadratic equations in one variable.	I can identify the solution by setting the binomial equal to zero. I can identify the	Communication Growth Mindset	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d	Classwork Exit Ticket White Board	

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	A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the function.	difference between a perfect square and a simplified radical. I can use technology to check my solutions.		B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	Practice Reflection Summative Assessment	
	Quadratic Formula and Discriminant A.REI.4 Solve quadratic equations in one variable. A.SSE.3 Choose and produce an equivalent form of an expression to reveal and explain properties of the quantity represented by the expression. F.IF.8 Write a function defined by an expression in different but equivalent forms to reveal and explain different properties of the	I can understand and apply the quadratic formula. I can identify coefficients and substitute those values into the quadratic formula. I can determine the type of expected solutions using the discriminant. I can use technology to check my solutions.	Communication Growth Mindset Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E4.2.d	DESMOS Practice Classwork Reflection Exit Ticket	

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	function.					
	Solving Nonlinear Systems of Equations A.REI.7 Solve a simple system consisting of a linear equation and a quadratic equation in two variables algebraically and graphically.	I can use technology to graph nonlinear systems of equations. I can interpret solutions to nonlinear systems of equations.	Growth Mindset Global Awareness	A2.1.d A3.1.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d C1.3.d D1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E2.3.d E4.2.d	DESMOS Practice Self Evaluation	

Unit 6 : Exponents & Exponential Functions

Essential Question(s) : What is a pattern and how do I describe it? How are variables used in exponents and exponential functions? How can rational numbers and exponents solve real world problems?

Big Idea(s) : Graphing Exponential Functions, Characteristics of Exponential Functions, Writing Growth and Decay Models, Writing Recursive and Explicit Geometric Equations

Vocabulary : Exponent, Domain, Range, Asymptotes, Intercepts, Radicals, Growth, Decay, Percent, Initial Value, Arithmetic, Geometric, Recursive, Explicit, Simple Interest, Compound Interest

			Connection to	Connection to		

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Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?		Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
	Exponential Functions F.IF.4 For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. F.IF.5 Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. F.IF.7 Graph functions expressed symbolically and indicate key features of the graph, by hand in simple cases and using technology for more complicated cases. Include applications and how key features relate to	I can graph an exponential function. I can identify the characteristics of an exponential function. (ie. domain, range, intercepts, and asymptotes). I can write an exponential model given a graph or table. I can compare equations and graphs of linear and exponential models.	Communication Growth Mindset Global Awareness Critical and Creative Thinking Collaboration	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B3.1.d C1.2.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	DESMOS Practice Classwork Exit Ticket Reflection	

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	characteristics of a situation, making selection of a particular type of function model appropriate. F.BF.1 Write a function that describes a relationship between two quantities.					
	Exponential Growth and Decay F.LE.1 Distinguish between situations that can be modeled with linear functions and with exponential functions. F.BF.3 Identify the effect on the graph of replacing f(x) by f(x) + k, kf(x), f(kx), and f(x + k) for specific values of k (both positive and negative); find the value of k given the graphs. F.LE.5 Interpret the parameters in a linear or exponential function in terms of a context.	I can distinguish between a growth and decay model. I can write a growth and decay model given the initial value and percent. I can compare the graphs of a growth and decay model.	Collaboration Global Awareness Critical and Creative Thinking Empathy	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	DESMOS Practice Classwork Self Evaluation Project Presentation	
	Geometric Sequence F.LE.1 Distinguish between	I can distinguish between arithmetic and geometric	Communication	A2.1.d A3.1.d	White Board Practice	

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	situations that can be modeled with linear functions and with exponential functions. F.LE.2 Construct linear and exponential functions, including arithmetic and geometric sequences, given a graph, a description of a relationship, or two input-output pairs (include reading these from a table). F.BF.2 Write arithmetic and geometric sequences both recursively and with an explicit formula, use them to model situations, and translate between the two forms.	sequences. I can write an equation in the recursive form. I can write an equation in the explicit form. I can understand the difference between recursive and explicit form. I can identify the ratio in a geometric sequence. I can find the nth term in a geometric sequence using the explicit form.	Growth Mindset	A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	Homework Exit Ticket Observation	

Unit 11 : Statistics

Essential Question(s) : How are statistics used in the real world? What is the best model to represent data sets? How do people use data to influence others and their main objective?

Big Idea(s) : Comparing Data Sets, Correctly Graphing Data Sets, Interpreting Shape of Data Displays, Creating and Understanding Standard Deviation, Completing Two Way Tables

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Vocabulary : Data Set, Bar Graph, Histograms, Line Graph, Pie Chart, Box and Whisker, Dot Plot, Scatter Plot, Correlation Coefficient, Standard Deviation, Mean, Median, Mode, Range, Spread, Quartiles, Interquartiles, Outliers, Curve, Scale, Symmetric, Skewed, Frequency Table, Two Way Table, Trends, Patterns, Hypothesis, Conclusion

Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to 	Connection to Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
Bellwork	**Comparing Data Sets** S.ID.2 In the context of real-world applications by using the GAISE model, use statistics appropriate to the shape of the data distribution to compare center (median and mean) and spread (mean absolute deviationG, interquartile rangeG, and standard deviation) of two or more different data sets. S.ID.3 In the context of real-world applications by using the GAISE model, interpret differences in shape, center, and spread in the context of the data sets,	I can compare presentations of the same data in different graphs. I can differentiate between types of graphs on how appropriate they are to the real world application.	Communication Collaboration Global Awareness Empathy	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	Classwork Reflection Summative Assessment	

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	accounting for possible effects of extreme data points (outliers).					
Bellwork	**Interpreting the Shape of Data Displays** S.ID.2 In the context of real-world applications by using the GAISE model, use statistics appropriate to the shape of the data distribution to compare center (median and mean) and spread (mean absolute deviationG, interquartile rangeG, and standard deviation) of two or more different data sets. S.ID.3 In the context of real-world applications by using the GAISE model, interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points (outliers).	I can identify the appropriate scale measures when creating graphs. I can compare symmetric and skewed data graphs. I can identify the mean and median of the graph. I can identify outliers on the graph and data points. I can answer real world problems given a distribution graph.	Communication Collaboration Global Awareness Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d AC.9-12.20	DESMOS Practice Project Presentation Classwork Self Evaluation	
	Standard Deviation S.ID.2 In the context of real-world applications by	I can create a standard deviation graph.	Communication Collaboration	A2.1.d A3.1.d A3.2.d	Project Presentation	

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	using the GAISE model, use statistics appropriate to the shape of the data distribution to compare center (median and mean) and spread (mean absolute deviationG, interquartile rangeG, and standard deviation) of two or more different data sets. S.ID.6 Represent data on two quantitative variables on a scatter plot, and describe how the variables are related.	I can identify the percentages of a standard deviation. I can compute the standard deviation given a set of data points. I can interpret a standard deviation using percentage quartiles. I can answer real world applications given a standard deviation graph and/or data points.	Global Awareness Critical and Creative Thinking Empathy	A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d AC.9-12.20	Homework Self Evaluation Exit Ticket	
	Two Way Frequency Tables S.ID.5 Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data (including joint, marginal, and conditional relative frequencies). Recognize possible associations and	I can create a two way frequency table. I can complete a two way frequency table. I can determine the relative frequency on a two way table. I can create a two way relative frequency table.	Communication Collaboration Global Awareness Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d	Classwork Reflection Summative Games	

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	trends in the data			D1.2.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d AC.9-12.20		

Once Algebra 1B is completed around February, take next 6 - 8 weeks to review Algebra 1 concepts for End of Course Exam mid April.

Geometry

Essential Question(s) : How can I use modeling with Geometry in the real world? How do you describe the likelihood of an event to happen? How can you determine the possible results in a probability event?

Big Idea(s) : Area and Perimeter, Volume and Surface Area, Using Geometry in the Real World, Sample Space, Independent vs Dependent Events, Conditional Probability, Theoretical vs Experimental Probability, Venn Diagram Probability

Vocabulary : Area, Perimeter, Volume, Surface Area, Three Dimensions, Cross Section, Net, Density, Unit of Measurements, Sample Space, Tree Diagram, Venn Diagram, Union, Intersection, Compliment, Independent, Dependent, Conditional, Permutations, Combinations, Theoretical, Experimental, Addition Rule, Multiplication Rule

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Suggested Pacing	Content Standards	Learning and Performance Expectations What must students know and be able to do?	Connection to Vision of a Lakewood Graduate	Connection to Social Emotional Standards and/or Social Justice Standards	Assessment of Learning Options How will we know if they learned this skill?	Resources Options
2 - 3 weeks	**Geometric Measurements and Dimensions** G.GMD.1 Give an informal argument for the formulas for the circumference of a circle, area of a circle, and volume of a cylinder, pyramid, and cone. G.GMD.3 Use volume formulas for cylinders, pyramids, cones, and spheres to solve problems G.GMD.4 Identify the shapes of two-dimensional cross-sections of three-dimensional objects, and identify three-dimensional objects generated by rotations of two-dimensional objects. G.MG.1 Use geometric	I can calculate the area and perimeter of 2 dimensional shapes. I can calculate the volume and surface area of 3 dimensional shapes. I can determine proper unit measurements depending on the question. I can distinguish a shape based on the net. I can describe the cross section given a 3 dimensional shape.	Communication Collaboration Global Awareness Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.4.d B3.1.d C1.2.d C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	Classwork Exit Ticket White Board Practice Reflection Project Summative Assessment	

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	shapes, their measures, and their properties to describe objects, e.g., modeling a tree trunk or a human torso as a cylinder. G.MG.2 Apply concepts of density based on area and volume in modeling situations, e.g., persons per square mile, BTUs per cubic foot G.MG.3 Apply geometric methods to solve design problems, e.g., designing an object or structure to satisfy physical constraints or minimize cost; working with typographic grid systems based on ratios.					
2 - 3 weeks	**Probability** S.CP.1 Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or complements of other events (“or,” “and,” “not”).	I can calculate the sample space of certain events. I can determine if an event is independent or dependent. I can create a venn diagram representing an event.	Communication Collaboration Global Awareness Critical and Creative Thinking	A2.1.d A3.1.d A3.2.d A4.1.d A4.3.d B1.3.d B2.1.d B2.4.d B3.1.d C1.2.d	Classwork Exit Ticket White Board Practice Reflection Project	

Grade: Sophomore (10th Grade)
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	S.CP.2 Understand that two events A and B are independent if and only if the probability of A and B occurring together is the product of their probabilities, and use this characterization to determine if they are independent. S.CP.3 Understand the conditional probability of A given B as P(A and B)/P(B), and interpret independence of A and B as saying that the conditional probability of A given B is the same as the probability of A, and the conditional probability of B given A is the same as the probability of B. S.CP.5 Recognize and explain the concepts of conditional probability and independence in everyday language and everyday situations. S.CP.6 Find the conditional probability of A given B as	I can test for independent events using probability rules. I can explain what the solution of an event represents. I can calculate the conditional probability. I can use permutations and combinations to calculate real world situations.		C1.3.d C3.3.d C4.3.d D2.1.d D2.2.d D3.3.d E1.1.d E1.2.d E2.3.d E3.1.d E4.2.d	Summative Assessment	

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	the fraction of B's outcomes that also belong to A, and interpret the answer in terms of the model. S.CP.7 Apply the Addition Rule, P(A or B) = P(A) + P(B) − P(A and B), and interpret the answer in terms of the model. S.CP.9 Use permutations and combinations to compute probabilities of compound events and solve problems.					