2021 - 2022, HS, Precalculus

The following <u>Practice Standards</u> and <u>Literacy Skills</u> will be used throughout the course:

<u>Standards for Mathematical Practice</u>

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics. ★
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

<u>Literacy Skills for Mathematical Proficiency</u>

1. Use multiple reading strategies.
2. Understand and use correct mathematical vocabulary.
3. Discuss and articulate mathematical ideas.
4. Write mathematical arguments.

Quarter 1

Standards	Student Friendly "I Can" Statements
P.F.BF.A.1 Understand how the algebraic properties of an equation transform the geometric properties of its graph. *For example, given a function, describe the transformation of the graph resulting from the manipulation of the algebraic properties of the equation (i.e., translations, stretches, reflections and changes in periodicity and amplitude).*	I can describe the transformation of the graph resulting from the manipulation of the algebraic properties of the equation (i.e., translations, stretches, reflections, and changes in periodicity and amplitude).
P.F.IF.A.1 Determine whether a function is even, odd, or neither.	I can determine whether a function is even, odd, or neither algebraically nor graphically.
P.F.BF.A.2 Develop an understanding of functions as elements that can be operated upon to get new functions: addition, subtraction, multiplication, division, and composition of functions.	I can create functions by adding, subtracting, multiplication, division, and composition of functions.
P.F.BF.A.3 Compose functions. *For example, if T(y) is the temperature in the atmosphere as a function of height, and h(t) is the height of a weather balloon as a function of time, then T(h(t)) is the temperature at the location of the weather balloon as a function of time.*	I can form a composite function. I can find the domain of a composite function. I can recognize the role that domain of a function plays in the combination of functions by composition of functions
P.F.BF.A.4 Construct the difference quotient for a given function and simplify the resulting expression.	I can construct the difference quotient for a given function and simplify the resulting expression.
P.F.BF.A.5 Find inverse functions (including exponential, logarithmic, and trigonometric).	I can calculate the inverse of a function with respect to each of the functional operations.

Standards	Student Friendly "I Can" Statements
a. Calculate the inverse of a function, $f(x)$, with respect to each of the functional operations; in other words, the additive inverse, $-f(x)$, the multiplicative inverse, $\frac{1}{f(x)}$ and the inverse with respect to composition, $f^{-1}(x)$. Understand the algebraic and graphical implications of each type. **b.** Verify by composition that one function is the inverse of another. **c.** Read values of an inverse function from a graph or a table, given that the function has an inverse. **d.** Recognize a function is invertible if and only if it is one-to-one. Produce an invertible function from a non-invertible function by restricting the domain.	I can verify by composition that one function is the inverse of another. I can identify whether a function has an inverse with respect to composition and when functions are inverses of each other with respect to composition. I can find an inverse function by restricting the domain of a function that is not one-to-one.
P.F.BF.A.6 Explain why the graph of a function and its inverse are reflections of one another over the line y=x.	I can explain why the graph of a function and its inverse are reflections of one another over the line $y = x$.
P.S.MD.A.3 ★Use a regression equation modeling bivariate data to make predictions. Identify possible considerations regarding the accuracy of predictions when interpolating or extrapolating.	I can use a regression equation modeling bivariate data to make predictions.
P.F.TF.A.1 Convert from radians to degrees and from degrees to radians.	I can convert from radians to degrees and from degrees to radians.
P.G.AT.A.3 Derive and apply the formulas for the area of sector of a circle.	I can derive and apply the formulas for the area of the sector of a circle.
P.G.AT.A.4 Calculate the arc length of a circle subtended by a central angle.	I can calculate the arc length of a circle subtended by a central angle.
P.F.TF.A.2 Use special triangles to determine geometrically the values of sine, cosine, tangent for π/3, π/4 and π/6, and use the unit circle to express the values of sine, cosine, and tangent for π–*x*, π+*x*, and 2π–*x* in terms of their values for *x*, where *x* is any real number.	I can find the reference angle of any angle on the unit circle. I can evaluate the trig functions of any angle of the unit circle using reference angles.
P.F.TF.A.3 Use the unit circle to explain symmetry (odd and even) and periodicity of trigonometric functions.	I can use the unit circle to explain the symmetry of the six trigonometric functions. I can describe periodicity of all six trigonometric functions.
P.F.GT.A.1★ Interpret transformations of trigonometric functions.	I can match a trigonometric equation with its graph by recognizing the parent graph and by using transformations.
P.F.GT.A.2★ Determine the difference made by choice of units for angle measurement when graphing a trigonometric function.	I can determine the difference made by choice of units for angle measurement when graphing a trigonometric function.
P.F.GT.A.3★ Graph the six trigonometric functions and identify	I can graph the six trigonometric functions (sin, cos, tan, csc, sec, cot) and

Standards	Student Friendly "I Can" Statements
characteristics such as period, amplitude, phase shift, and asymptotes.	identify characteristics such as period, amplitude, phase shift, and asymptotes.
P.F.GT.A.4★ Find values of inverse trigonometric expressions (including compositions), applying appropriate domain and range restrictions.	I can find values of inverse trigonometric functions, applying appropriate domain and range restrictions.
P.F.GT.A.5★ Understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.	I can understand that restricting a trigonometric function to a domain on which it is always increasing or always decreasing allows its inverse to be constructed.
P.F.GT.A.6★ Determine the appropriate domain and corresponding range for each of the inverse trigonometric functions.	I can determine and list the appropriate domain and corresponding range for each of the inverse trigonometric functions.
P.F.GT.A.7★ Graph the inverse trigonometric functions and identify their key characteristics.	I can graph the inverse trigonometric functions and identify their key characteristics.
P.F.GT.A.8★ Use inverse functions to solve trigonometric equations that arise in modeling contexts; evaluate the solutions using technology and interpret them in terms of the context.	I can use inverse functions to solve trigonometric equations that arise in modeling contexts. I can analyze the results of solving an equation and determine when it represents the solution of a real-world problem. I can explain why some results are not actually answers for the real-world problem.
P.G.AT.A.1 ★Use the definitions of the six trigonometric ratios as ratios of sides in a right triangle to solve problems about lengths of sides and measures of angles.	I can use the definitions of the six trigonometric ratios as ratios of sides in a right triangle to solve problems about lengths of sides and measures of angles.
P.S.MD.A.3★ Use a regression equation modeling bivariate data to make predictions. Identify possible considerations regarding the accuracy of predictions when interpolating or extrapolating.	I can use a regression equation modeling bivariate data to make predictions involving exponential, logarithmic, and trigonometric functions.
P.F.TF.A.4 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.	I can choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.
<u>Honors Addendum:</u> P.WCE.1 Apply the arc length formula or conversion factors to real world applications. P.WCE.2 Apply appropriate techniques to analyze mathematical models and functions constructed from verbal information; interpret the solution obtained in written form using appropriate units of measurement.	I can apply linear and angular velocity formulas in real world applications. I can create and analyze mathematical models that describe situations including growth and decay and financial applications.

Quarter 2

Standards	Student Friendly "I Can" Statements
P.G.TI.A.1 ★Apply trigonometric identities to verify identities and solve equations. Identities include Pythagorean, reciprocal, quotient, sum/difference, double-angle, and half-angle.	I can recognize and use the following trigonometric identities to verify identities and solve trigonometric equations: Pythagorean, Reciprocal, Quotient, Sum/Difference, Double Angle
P.G.TI.A.2 ★ Prove the addition and subtraction formulas for sine, cosine, and tangent and use them to solve problems.	I can prove the sum and difference formulas for sine, cosine, and tangent and apply them in solving problems.
P.G.AT.A.2 ★Derive the formula $A = ½\ ab \sin c$ for the area of a triangle by drawing an auxiliary line from a vertex perpendicular to the opposite side.	I can derive the area of triangle formula A= ½ ab sinC by constructing a drawing to model the situation.
P.G.AT.A.5 ★Prove the Laws of Sines and Cosines and use them to solve problems.	I can prove the Law of Sines and Cosines and apply them to solve problems.
P.G.AT.A.6 ★Understand and apply the Law of Sines (including the ambiguous case) and the Law of Cosines to find unknown measurements in right and non-right triangles (e.g., surveying problems, resultant forces).	I can apply the Law of Sines (including the ambiguous case) and Cosines to solve right and oblique triangles. I can solve real work problems (e.g. surveying, navigation.) I can determine how many solutions are possible for the Ambiguous case of the Law of Sines. I can determine when it is appropriate to use A = (1/2)ab sinC and Heron's Law. I can find areas of triangles using the two area formulas A = (1/2)ab sinC and Heron's Law.
P.N.VM.A.1 Recognize vector quantities as having both magnitude and direction. Represent vector quantities by directed line segments and use appropriate symbols for vectors and their magnitudes (e.g., $\boldsymbol{v}$, $\|\boldsymbol{v}\|$, $\|\|\boldsymbol{v}\|\|$, v).	I can represent vectors graphically with both magnitude and direction. I can represent vectors by directed line segments and use appropriate symbols for vectors and their magnitudes. I can interpret vectors geometrically and their relationship to real life problems.
P.N.VM.A.2 Find the components of a vector by subtracting the coordinates of an initial point from the coordinates of a terminal point.	I can demonstrate that vectors are determined by the coordinates of their initial and terminal points, or by their components

Standards	Student Friendly "I Can" Statements
P.N.VM.B.3 Solve problems involving velocity and other quantities that can be represented by vectors.	I can use vectors to model velocity and direction to solve problems.
P.N.VM.B.4 Add and subtract vectors. **a.** Add vectors end-to-end, component-wise, and by the parallelogram rule. Understand that the magnitude of a sum of two vectors is typically not the sum of the magnitudes. **b.** Given two vectors in magnitude and direction form, determine the magnitude and direction of their sum. **c**. Understand vector subtraction $\boldsymbol{v} - \boldsymbol{w}$ as $\boldsymbol{v} + (-\boldsymbol{w})$, where $-\boldsymbol{w}$ is the additive inverse of $\boldsymbol{w}$, with the same magnitude as $\boldsymbol{w}$ and pointing in the opposite direction. Represent vector subtraction graphically by connecting the tips in the appropriate order and perform vector subtraction component-wise.	I can add and subtract vectors using a variety of methods and multiple representations. I can represent vectors and vector arithmetic graphically by creating a resultant vector. I can calculate the magnitude and direction angle of a resultant vector. I can represent vector subtraction graphically.
P.N.VM.B.5 Multiply a vector by a scalar. **a.** Represent scalar multiplication graphically by scaling vectors and possibly reversing their direction; perform scalar multiplication component-wise, e.g., as $c(vx, vy) = (cvx, cvy)$. **b.** Compute the magnitude of a scalar multiple $c\boldsymbol{v}$ using $\|\|c\boldsymbol{v}\|\| = \|c\|v$. Compute the direction of $c\boldsymbol{v}$ knowing that when $\|c\|v \neq 0$, the direction of $c\boldsymbol{v}$ is either along $\boldsymbol{v}$ (for $c > 0$) or against $\boldsymbol{v}$ (for $c < 0$).	I can multiply a vector by a scalar algebraically and by modeling them graphically. I can calculate the magnitude and the direction angle of a scalar multiple of a vector.
P.N.CN.A.4 Represent addition, subtraction, multiplication, and conjugation of complex numbers geometrically on the complex plane; use properties of this representation for computation. *For example,* $(-1 + 3i)^3 = 8$ *because* $(-1 + 3i)$ *has modulus* 2 *and argument* 120°.	I can represent addition, subtraction, multiplication, and division of complex numbers geometrically on the complex plane.
P.N.CN.A.5 Calculate the distance between numbers in the complex plane as the modulus of the difference, and the midpoint of a segment as the average of the numbers at its endpoints.	I can calculate the distance between numbers in the complex plane as the magnitude or modulus of the difference by finding the absolute value of the complex number. I can calculate the midpoint of a segment as the average of the numbers at its endpoints.
P.N.VM.B.6 Calculate and interpret the dot product of two vectors.	I can interpret the dot product of two vectors I can use the dot product to find the angle between two vectors.
P.N.CN.A.1 Perform arithmetic operations with complex numbers expressing answers in the form *a+bi*.	I can perform arithmetic operations with complex numbers expressing answers in the form *a+bi*.

Standards	Student Friendly "I Can" Statements
P.N.CN.A.2 Find the conjugate of a complex number; use conjugates to find moduli and quotients of complex numbers.	I can find the conjugate of a complex number and use them to find moduli and quotients of complex numbers.
Honors Addendum: P.WCE.3 Apply De Moivre's Theorem to find powers and roots of complex numbers.	I can apply De Moivre's Theorem to find powers and roots of complex numbers.

Quarter 3

Standards	Student Friendly "I Can" Statements
P.G.PC.A.1 Graph functions in polar coordinates.	I can graph functions in polar coordinates.
P.G.PC.A.2 Convert between rectangular and polar coordinates.	I can convert between rectangular and polar coordinates.
P.G.PC.A.3 ★ Represent situations and solve problems involving polar coordinates.	I can represent complex numbers on the complex plane in rectangular and polar form.
P.N.CN.A.3 Represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers) and explain why the rectangular and polar forms of a given complex number represent the same number.	I can represent complex numbers on the complex plane in rectangular and polar form (including real and imaginary numbers). I can explain why the rectangular and polar forms of a given complex number represent the same number.
P.A.PE.A.1 ★Graph curves parametrically (by hand and with appropriate technology).	I can graph parametrically by hand and with appropriate technology.
P.A.PE.A.2 ★Eliminate parameters by rewriting parametric equations as a single equation.	I can eliminate parameters by rewriting parametric equations as a single equation.
P.F.IF.A.5 Identify characteristics of graphs based on a set of conditions or on a general equation such as $y = ax^2 + c$.	I can identify characteristics of graphs such as direction it opens, vertex based on a set of conditions or on a general equation such as $y = ax^2 + c$.
P.F.IF.A.2 ★Analyze qualities of exponential, polynomial, logarithmic, trigonometric, and rational functions and solve real world problems that can be modeled with these functions (by hand and with appropriate technology).	I can analyze qualities of exponential, polynomial, logarithmic, trigonometric, and rational functions and solve real world problems that can be modeled with these functions. I can identify or analyze the following properties of polynomial, and rational functions from tables, graphs, and equations. ● Domain ● Range ● Continuity ● Increasing/decreasing behavior ● Symmetry ● Boundedness ● Extrema ● Asymptotes ● Intercepts ● Holes

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Standards	Student Friendly "I Can" Statements
	• End behavior with limit notation. • Concavity
P.F.IF.A.4 Identify the real zeros of a function and explain the relationship between the real zeros and the x-intercepts of the graph of a function (exponential, polynomial, logarithmic, trigonometric, and rational).	I can identify the real zeros of the graph of a function (polynomial, rational, exponential, logarithmic, and trigonometric) in equation or graphical form. I can explain the relationship between the real zeros and the *x*-intercept of the graph of a function (polynomial, rational, exponential, logarithmic, and trigonometric).
P.F.IF.A.6 Visually locate critical points on the graphs of functions and determine if each critical point is a minimum, a maximum or point of inflection. Describe intervals where the function is increasing or decreasing and where different types of concavity occur.	I can locate critical points on the graphs of polynomial functions and determine if each critical point is a minimum or a maximum. I can describe and locate maximums, minimums, increasing and decreasing intervals, and zeros given a sketch of the graph.
P.F.IF.A.7 Graph rational functions, identifying zeros, asymptotes (including slant), and holes (when suitable factorizations are available) and showing end-behavior.	I can graph rational functions, identifying zeros, asymptotes (including slant), and holes (when suitable factorizations are available) and showing end-behavior.
P.N.CN.B.6 Extend polynomial identities to the complex numbers. *For example, rewrite* $x^2 + 4$ *as* $(x + 2i)(x - 2i)$.	I can extend polynomial identities to the complex numbers.
P.N.CN.B.7 Know the Fundamental Theorem of Algebra; show that it is true for quadratic polynomials.	I know the Fundamental Theorem of Algebra and can show it is true for quadratic polynomials.
P.N.NE.A.4 Simplify complex radical and rational expressions; discuss and display understanding that rational numbers are dense in the real numbers and the integers are not.	I can simplify complex radical and rational expressions.
P.N.NE.A.5 Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.	I can add, subtract, multiply, and divide rational expressions.
P.A.REI.A.3 Solve nonlinear inequalities (quadratic, trigonometric, conic, exponential, logarithmic, and rational) by graphing (solutions in interval notation if one-variable), by hand and with appropriate technology.	I can solve nonlinear inequalities (quadratic and rational) by graphing (solutions in interval notation if one-variable), by using a sign chart, and with appropriate technology.
P.A.REI.A.4 Solve systems of nonlinear inequalities by graphing.	I can solve systems of nonlinear inequalities by graphing.
P.F.IF.A.2 ★ Analyze qualities of exponential, polynomial, logarithmic, trigonometric, and rational functions and solve real world problems that can be modeled with these functions (by hand and with appropriate technology).	I can identify or analyze the following properties of exponential, logarithmic, and logistic functions. • Domain • Range

Standards	Student Friendly "I Can" Statements
	● Continuity ● Increasing/decreasing behavior ● Symmetry ● Boundedness ● Extrema ● Asymptotes ● Intercepts ● Holes ● End behavior with limit notation. ● Concavity I can solve real world problems that can be modeled using quadratic, exponential, or logarithmic functions (by hand and with appropriate technology). I can determine what function should be used to model a real-world situation. I can apply the appropriate function to a real-world situation and then find its solution.
P.N.NE.A.3 Classify real numbers and order real numbers that include transcendental expressions, including roots and fractions of pi and e.	I can classify real numbers and order real numbers that include transcendental expressions, including roots and fractions of pi and e.
P.N.NE.A.2 ★Understand the inverse relationship between exponents and logarithms and use this relationship to solve problems involving logarithms and exponents.	I can demonstrate understanding of the inverse relationship between exponents and logarithms. I can solve problems containing logarithms and exponents. I can change an equation from logarithmic to exponential form and back. I can solve exponential equations. I can solve logarithmic equations. I can prove basic properties of a logarithm using properties of its inverse and apply those properties to solve problems.

Standards	Student Friendly "I Can" Statements
	I can find the inverse of an exponential or a logarithmic function.
P.N.NE.A.1 Use the laws of exponents and logarithms to expand or collect terms in expressions; simplify expressions or modify them to analyze them or compare them.	I can use the laws of exponents and logarithms to expand or collect terms in expressions; simplify expressions or modify them to analyze them or compare them. I can compare exponential and logarithmic expressions.
<u>Honors Addendum:</u> P.WCE.4 Simulate motion using parametric equations. P.WCE.5 Solve maximum/minimum value problems by converting the given verbal information into an appropriate mathematical model and analyzing the graph of that model graphically to answer the questions. Recognize the approximation necessary when solving graphically.	I can simulate motion using parametric equations. I can solve challenging optimization problems involving three-dimensional figures, i.e. boxes, cones. I can describe the solution process by analyzing the graph and constructing arguments to explain this reasoning. I can use precise language to write solutions to max/min problems.

Quarter 4

Standards	Student Friendly "I Can" Statements
P.N.VM.C.7 Use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.	I can use matrices to represent and manipulate data, e.g., to represent payoffs or incidence relationships in a network.
P.N.VM.C.8 Multiply matrices by scalars to produce new matrices, e.g., as when all of the payoffs in a game are doubled.	I can multiply matrices by scalars to produce new matrices, e.g., as when all the payoffs in a game are doubled.
P.N.VM.C.9 Add, subtract, and multiply matrices of appropriate dimensions.	I can determine if matrices may be added, subtracted, or multiplied by using their dimensions. I can add, subtract, and multiply matrices of appropriate dimensions.
P.N.VM.C.10 Understand that, unlike multiplication of numbers, matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.	I can show that matrix multiplication for square matrices is not a commutative operation, but still satisfies the associative and distributive properties.
P.N.VM.C.11 Understand that the zero and identity matrices play a role in matrix addition and multiplication similar to the role of 0 and 1 in the real numbers. The determinant of a square matrix is nonzero if and only if the matrix has a multiplicative inverse.	I can show how the zero and identity matrices play a role in matrix addition and multiplication like the role of 0 and 1 in the real numbers. I can explain how the determinant of a square matrix is non-zero if and only if the matrix has a multiplicative inverse.
P.N.VM.C.12 Multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. Work with matrices as transformations of vectors.	I can multiply a vector (regarded as a matrix with one column) by a matrix of suitable dimensions to produce another vector. I can work with matrices as transformations of vectors.
P.N.VM.C.13 Work with 2×2 matrices as transformations of the plane, and interpret the absolute value of the determinant in terms of area.	I can work with 2×2 matrices as transformations of the plane and interpret the absolute value of the determinant in terms of area.
P.A.REI.A.1 Represent a system of linear equations as a single matrix equation in a vector variable.	I can represent a system of equations as a single matrix equation in a vector variable.
P.A.REI.A.2 Find the inverse of a matrix if it exists and use it to solve systems of linear equations (using technology for matrices of dimension 3×3 or greater).	I can find the inverse of a matrix if it exists and use it to solve systems of linear equations. I can use technology when solving system of equations represented by matrices of dimensions 3×3 or greater.
P.A.S.A.1 Demonstrate an understanding of sequences by representing them recursively and explicitly.	I can demonstrate an understanding of sequences by representing them recursively and explicitly.
P.A.S.A.2 Use sigma notation to represent a series; expand and collect expressions in both finite and infinite settings.	I can use Sigma notation to represent a series.

Standards	Student Friendly "I Can" Statements
P.A.S.A.3 Derive and use the formulas for the general term and summation of finite or infinite arithmetic and geometric series if they exist. **a.** Determine whether a given arithmetic or geometric series converges or diverges. **b**. Find the sum of a given geometric series (both infinite and finite). **c**. Find the sum of a finite arithmetic series.	I can determine whether a given arithmetic or geometric series converges or diverges. I can find the sum of a given geometric series (both infinite and finite). I can find the sum of a finite arithmetic series.
P.F.IF.A.8 Recognize that sequences are functions, sometimes defined recursively, whose domain is a subset of the integers. *For example, the Fibonacci sequence is defined recursively by* $f(0)=f(1)=1$, $f(n+1)=f(n)+f(n-1)$ *for* $n \geq 1$.	I can analyze a variety of types of situations modeled by functions and recognize that sequences are functions, sometimes defined recursively.
P.A.S.A.4 Understand that series represent the approximation of a number when truncated; estimate truncation error in specific examples.	I can understand that the series represent the approximation of a number when truncated; estimate truncation error in specific examples.
P.A.S.A.5 Know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined for example by Pascal's Triangle.	I can know and apply the Binomial Theorem for the expansion of $(x + y)^n$ in powers of x and y for a positive integer n, where x and y are any numbers, with coefficients determined, for example, by Pascal's Triangle.
P.A.C.A.1 Display all the conic sections as portions of a cone.	I can display all the conic sections as portions of a cone.
P.A.C.A.2 Derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.	I can derive the equations of ellipses and hyperbolas given the foci, using the fact that the sum or difference of distances from the foci is constant.
P.A.C.A.3 From an equation in standard form, graph the appropriate conic section: ellipses, hyperbolas, circles, and parabolas. Demonstrate an understanding of the relationship between their standard algebraic form and the graphical characteristics.	I can graph ellipses and hyperbolas and demonstrate understanding of the relationship between their standard algebraic form and the graphical characteristics.
P.A.C.A.4 Transform equations of conic sections to convert between general and standard form.	I can transform equations of conic sections to convert between general and standard form.
P.S.MD.A.1 ★ Create scatter plots, analyze patterns and describe relationships for bivariate data (linear, polynomial, trigonometric or exponential) to model real-world phenomena and to make predictions.	I can create scatter plots for bivariate data. (linear, polynomial, trigonometric or exponential) to model real-world phenomena. I can analyze patterns from the scatter plots that I created.

Standards	Student Friendly "I Can" Statements
	I can describe relationships in the scatter plots. I can make predictions using the scatter plots.
P.S.MD.A.2 ★Determine a regression equation to model a set of bivariate data. Justify why this equation best fits the data.	I can explain how to determine the best regression equation model that approximates a particular data set.
P.S.MD.A.3 ★Use a regression equation modeling bivariate data to make predictions. Identify possible considerations regarding the accuracy of predictions when interpolating or extrapolating.	I can find the regression equation that best fits bivariate data. I can use a regression equation modeling bivariate data to make predictions. I can identify possible considerations regarding the accuracy of predictions when interpolating or extrapolating.
Honors Addendum: P.WCE.6 Develop the concept of the limit using tables, graphs, and algebraic properties.	I can explore the properties of a limit by analyzing sequences and series. I can understand the relationship between a horizontal asymptote and the limit of a function at infinity. I can determine the limit of a function at a specified number. I can find the limit of a function at a number using algebra.