Options EHS Algebra 2B-OR	Scope and Sequence
Unit Lesson	**Objectives**
Polynomial Functions	
Graphs of Polynomial Functions	
	Identify the key features of a polynomial function from a given graph.
	Describe the key features of a polynomial function.
Quadratic in Form Polynomials	
	Identify fourth degree equations that are quadratic in form and use an appropriate u-substitution.
	Solve fourth degree equations that are quadratic in form.
Graphing Polynomial Functions	
	Graph polynomial functions using key features.
Solving Polynomial Equations using Technology	
	Use technology to solve or approximate solutions of one-variable polynomial equations.
Unit Test	
Rational Functions	
Negative Exponents	
	Evaluate numeric expressions using laws of integer exponents.
	Simplify single-variable expressions using laws of integer exponents.
Simplifying Rational Expressions	
	Simplify rational expressions using laws of integer exponents.
Multiplying and Dividing Rational Expressions	
	Perform multiplication and division of rational expressions.
Adding and Subtracting Rational	

Options EHS Algebra 2B-OR		Scope and Sequence
Unit	**Lesson**	**Objectives**
	Expressions	
		Perform addition and subtraction of rational expressions.
		Simplify complex rational expressions containing sums or differences.
	Rational Equations	
		Solve rational equations and determine extraneous solutions.
		Use rational equations to model and solve real-world problems.
		Determine the reasonableness of a solution to a rational equation.
	Vertical Asymptotes of Rational Functions	
		Determine the vertical asymptotes and holes in the graph of a rational function having the x-axis as its only horizontal asymptote.
		Solve problems involving inverse variation.
	Graphing Rational Functions	
		Determine the horizontal asymptotes of a rational function.
		Graph rational functions that have only vertical or horizontal asymptotes.
	Rational Inequalities	
		Solve rational inequalities algebraically and determine extraneous solutions.
	Modeling with Rational Functions	
		Model and solve real-world problems using rational functions.
	Unit Test	
Radical Functions		
	Graphing Radical Functions	
		Relate transformations to the graphs of square root and cube root functions to their parent function.
		Determine the domain and range of square root and cube root functions.

Options EHS Algebra 2B-OR		Scope and Sequence
Unit	**Lesson**	**Objectives**
	Simplifying Perfect Roots	
		Identify numbers and variable expressions that are perfect powers.
		Simplify perfect roots.
	Simplifying Nonperfect Roots	
		Simplify nonperfect roots without rationalizing.
	Rational Exponents	
		Evaluate numeric expressions using properties of rational exponents.
		Simplify algebraic expressions using properties of rational exponents.
	Adding and Subtracting Radicals	
		Identify like radicals.
		Add and subtract radical expressions.
	Multiplying Radicals	
		Perform multiplication of radical expressions.
	Dividing Radicals	
		Perform division of radical expressions, rationalizing the denominator when necessary.
	Radical Equations and Extraneous Roots	
		Model and solve mathematical and real-world problems using radical equations, and determine extraneous roots.
	Solving Equations Containing Two Radicals	
		Solve equations containing two radicals, and determine extraneous solutions.
	Unit Test	
Exponential and Logarithmic Functions		
	Graphing Exponential Functions	

Options EHS Algebra 2B-OR		Scope and Sequence
Unit	**Lesson**	**Objectives**
		Identify exponential functions.
		Determine the domain and range of exponential functions.
		Graph exponential functions.
	Solving Exponential Equations by Rewriting the Base	
		Solve exponential equations by rewriting bases.
	Graphing Logarithmic Functions	
		Identify logarithmic functions.
		Determine the domain and range of logarithmic functions.
		Identify and analyze the graphs of logarithmic functions.
	Solving Logarithmic Equations using Technology	
		Rewrite logarithmic expressions using the change of base algorithm.
		Solve a one-variable equation containing logarithms by transforming it into a system of equations.
	Solving Exponential and Logarithmic Equations	
		Solve exponential and logarithmic equations using inverses, properties, and algorithms.
	Modeling with Exponential and Logarithmic Equations	
		Model and solve real-world problems using exponential and logarithmic functions.
	Geometric Series	
		Find sums of finite and infinite geometric series.
		Apply geometric series to solve mathematical and real-world problems.
	Unit Test	

Options EHS Algebra 2B-OR	Scope and Sequence
Unit Lesson	**Objectives**
More with Relations and Functions	
Absolute Value Functions	
	Analyze absolute value functions to determine key features of the graph.
	Model and solve mathematical and real-world problems with absolute value functions.
Piecewise Defined Functions	
	Graph piecewise defined functions.
	Evaluate piecewise defined functions.
	Determine the domain, range, and continuity of piecewise defined functions.
Step Functions	
	Evaluate step functions.
	Analyze step functions to determine key features of the graph.
	Use step functions to model real-world problems.
Domain and Range	
	Determine the domain and range of a function in both mathematical and real-world contexts.
Analyzing Compositions of Functions	
	Find compositions of functions from a variety of function families.
	Determine the domain and range of the composition of functions.
Modeling with Functions	
	Find the equation of a function that best models a data set.
	Use function models to solve problems.
Unit Test	
Cumulative Exam	

Options EHS Algebra 2B-OR		Scope and Sequence
Unit	**Lesson**	**Objectives**
	Cumulative Exam Review	
	Cumulative Exam	