

Algebra 2 Scope and Sequence
Easthampton High School
Easthampton, MA

Duration Fall	Duration Spring	Unit	Pacing	Standards and Power Standards	Resources	Assessments Note: All assessments will be common and are currently under development
September	January to Early February	1. Function Operations and Transformations With review of systems	15 days	A-SSE.1 A-CED.1 A-CED.2 A-CED.4 A-REI.11 F-IF.7 F-IF.7b F-IF.9 F-IF.8 F-IF.8.MA.8c F-BF.3	Glencoe Textbook 1-4 Solving Absolute Value Equations Glencoe Textbook 2-6 Special Functions ATAK 7-3 Finding the Values of Functions ATAK 7-4 Identifying the Domain and Range of a Function ATAK 7-6 Using the Basic Operations with Functions LTF – Connecting Tables Graphs and Function Notation LTF – Transforming Domain and Range	Quiz (Domain, Range, Absolute Value, Function Basics) Quiz (Piecewise, Stepwise, Basic Transformations) Unit Test

(+) denotes Honors Level Standards

Bold standards are power-standards for the unit and should be emphasized, explored and assessed thoroughly.

					<p>ATAK 7-10 Evaluating Piecewise-Defined Functions (may need scaffolding)</p> <p>LTF – Applying Piecewise Functions</p> <p>ATAK (7-9) Evaluating the greatest Integer Function</p> <p>ATAK 7-11 identifying graphs of Families of Functions</p> <p>Glencoe Textbook Chapter 3-1 through 3-3</p>	
Late September to early October	Mid February to Early March	2. Quadratic and Functions and their Inverses	20 days	<p>N-CN.1</p> <p>N-CN.2</p> <p>N-CN.7</p> <p>(+)N-CN.8</p> <p>(+)N-CN.9</p> <p>A-SSE.1</p> <p>A-CED.1</p> <p>A-CED.2</p> <p>A-CED.3</p> <p>A-CED.4</p> <p>A-APR.2</p> <p>A-APR.3</p> <p>F-IF.4</p> <p>F-IF.5</p> <p>F-IF.6</p> <p>F-IF.7c</p> <p>F-IF.9</p> <p>A-REI.2</p>	<p>Glencoe Textbook Chapter 5 Quadratic Functions</p> <p>LTF: Another way to look at Factoring</p> <p>LTF: Accumulation with Quadratic Functions</p> <p>LTF: Investigation – Graphing quadratic Functions</p> <p>LTF: Graphing Quadratic Functions</p> <p>LTF: Quadratic Functions – Adaptation of AP Calculus 1997 AB-2</p> <p>ATAK 8-10 Using i</p>	<p>Quiz (Quadratics)</p> <p>Mid-unit test</p> <p>Quiz (Inverses and rational exponents)</p> <p>Unit Test</p>

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				A-REI.11 F-BF.4 F-BF.4a	ATAK 8-11 Using Complex Numbers to Simplify Expressions ATAK 9-1 Solving Quadratic Equations by Factoring ATAK 9-2 Solving Simple Quadratic Equations ATAK 9-3 Solving a Quadratic Equation by Completing the Square ATAK 9-4 Using the Quadratic Formula ATAK 9-5 Using Equations to Describe Parabolas Glencoe Textbook 7-1 through 7-3 Composition of functions, Inverses and Square Root Functions LTF: Composition of Functions Exploration LTF: Compositions of Functions Graphically LTF: Composition of Functions	
Early-mid October	Early March	3. Polynomial Functions and their inverses	12 days	A-SSE.1 A-SSE.2 A-APR.1	Glencoe Textbook Chapter 6 Polynomial Functions	Quiz (Polynomial functions)

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				<p>A-APR.4 (+)A-APR.5 N-RN.1 N-RN.2</p>	<p>ATAK 9-7 Using Synthetic Division</p> <p>ATAK 9-8 Using Synthetic Division to Factor Polynomials</p> <p>ATAK 9-9 Finding the Zeroes of Polynomial Functions</p> <p>Glencoe Textbook Chapter 7-4 through 7-7 nth Roots, Radical Operations, Rational Exponents, Solving Radical Equations and Graphing Radical Functions</p> <p>Glencoe Textbook 7-7 Graphing Calculator Lab p.428</p> <p>LTF: Power and Root Functions – a look at Concavity</p>	<p>Quiz (Rational Exponents) Unit Test</p>
<p>Mid October to November</p>	<p>Mid/Late March</p>	<p>4. Rational Functions</p>	<p>15 days</p>	<p>A-SSE.1 A-APR.1 A-APR.MA.1a A-APR.6 (+)A-APR.7 F-IF.8 F-IF.8.MA.8c</p>	<p>Glencoe Textbook Ch 8</p> <p>LTF: Rational Function Exploration</p> <p>LTF: Rational Functions with Removable Discontinuities</p>	<p>Quiz (Algebra with Rational expressions and Vertical asymptotes of graphs of rational functions) Quiz (horizontal vs. slant asymptotes and applications)</p>

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						Unit Test
Late November – mid December	Early April	5. Statistics and Probability	10 days	S-ID.4 S-IC.1 S-IC.2 S-IC.3 S-IC.4 S-IC.5 S-IC.6	***NEED*** Glencoe Textbook Ch 12	Project or Performance Assessment
End of December	Late April	6. Exponential and Logarithmic Functions	15 days	A-SSE.4 F-LE.4 F-IF.7e F-BF.1 F-BF.1.b (+)F-BF.1.c F-BF.3 F-BF.4	Glencoe Textbook Chapter 9 ATAK 9-10 Solving Exponential Equations ATAK 9-12 Borrowing and Repaying Money (with Interest) ATAK 9-13 Calculating Compound Interest ATAK 9-11 Solving Equations Involving Logarithms	Quiz (Review of exponent rules and manipulating exponential expressions) Quiz (Exponential functions: writing, solving, graphing, applications) Quiz (Logarithmic functions: writing, solving, graphing, applications) Unit Test
January	June	7. Trigonometric Functions	5 days	F-TF.1 F-TF.2 F-TF.5 F-TF.8	**Need**	Test or Quest
Honors Only January	Insert at teachers' discretion	8. Vector Quantities and Matricies	5 days	(+)N-VM.1 (+)N-VM.2 (+)N-VM.3 (+)N-VM.6 (+)N-VM.8 (+)N-VM.12	Glencoe Textbook Chapter 4	Quiz (Vectors) Test (Vectors and Matricies)

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