**Pacing Guide**

**Course: Algebra II Grade: 10-11**

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| **Months/Days** | **UNITS** | **STANDARDS** | **CONTENT**  **Topics being covered? What do students need to know? (*nouns*)** | **ACTIVITIES**  **w/Integration of Technology & Career Ready Practices** | **ASSESSMENTS**  **What evidence (formative/summative) is utilized to establish that the content, standards, & skills have been mastered?** |
| September  (2 weeks) | Basic Concepts of Algebra | MA.9-12.A-APR.A  MA.9-12.A-REI  MA.9-12.A-REI.B  MA.9-12.A-REI.D  MA.9-12.A-SSE.B  MA.9-12.N-Q.A  MA.9-12.A-CED  MA.9-12.A-CED.A MA.9-12.A-REI  MA.9-12.A-REI.A  MA.9-12.A-REI.B  MA.9-12.A-REI.D | Linear equations in one variable  Properties of operations  Properties of equality  Word problems with linear equations  Algebraic expressions  Conjunctions & Disjunctions  Linear inequalities in one variable  Absolute value equations  Word problems with inequalities | Mathxlforschool.com  Group Project Creating Word Problems  Graphing Calculator  Mathxlforschool.com  Presentation of Compound Inequalities using and/or  Graphing Calculator | Unit Test on Solving and Graphing Equations and Inequalities |
| October -November  (10 weeks) | Linear Equations and Functions | MA.9-12.A-REI.A.1  MA.9-12.A-REI.A.2  MA.9-12.A-REI.B.3  MA.9-12.A-REI.C.5  MA.9-12.A-REI.C.6  MA.9-12.A-REI.C.8  MA.9-12.A-REI.D.10  MA.9-12.A-REI.D.11  MA.9-12.A-REI.D.12  MA.9-12.F-BF.A  MA.9-12.F-BF.A.1  MA.9-12.F-IF.A  MA.9-12.F-IF.A.1  MA.9-12.F-IF.A.2  MA.9-12.F-IF.B.4  MA.9-12.F-IF.B.5  MA.9-12.F-IF.B.6  MA.9-12.F-IF.C.7  MA.9-12.F-IF.C.8  MA.9-12.F-IF.C.9  MA.9-12.F-LE.A  MA.9-12.G-GPE.B.5  MA.9-12.S-ID.C.7  MA.9-12.S-ID.C.8 | Systems of linear equations through graphing, substitution, elimination and using technology  Applications of systems  Systems of linear inequalities  Systems of three equations  Operation with functions  Finding domain and range  Composition of functions | Mathxlforschool.com  Graphing Calculator Exploration with Systems | Graphing Linear Equations Quiz  Systems of Equations Quiz  Unit Test on Systems of Equations  Composition of Functions Quiz  Unit Test on Relations & Functions |
| Dec - Jan  (7 weeks) | Polynomials | MA.9-12.A-APR  MA.9-12.A-APR.A  MA.9-12.A-APR.A.1  MA.9-12.A-APR.B  MA.9-12.A-APR.B.3  MA.9-12.A-SSE.A.1  MA.9-12.A-SSE.A.2  MA.9-12.A-SSE.B  MA.9-12.A-SSE.B.3  MA.9-12.F-IF.C.7  MA.9-12.F-IF.C.8  MA.9-12.F-LE.B.5  MA.9-12.N-RN.A.1 | Operations with polynomials  Laws of exponents  Multiplying polynomials  Prime factorization  Special factorization  Factoring quadratics  Solving quadratic equations by factoring | Mathxlforschool.com  Graphing Calculator Exploration with Quadratics and the Effects of Changing Parts of the Equation | Operations on Polynomials Quiz  Special Case Factoring Quiz  Unit Test on Factoring  Solve by Factoring Quiz |
| Feb-March  (8 weeks) | Quadratic Equations and Functions | MA.9-12.F-IF.C.7  MA.9-12.F-IF.C.8  MA.9-12.F-IF.C.9  MA.9-12.N-CN.C  MA.9-12.N-CN.C.7 | Completing the square  The quadratic formula  The discriminant  Equations in quadratic form  Graphing y-k = a(x-h)^2  Writing quadratic functions and equations | Mathxlforschool.com  Desmos Graphing Project  Group Project Analyzing all methods for solving quadratic equations  Graphing Calculator | Completing the Square Quiz  Quadratic Formula and Discriminant Quiz  Unit Test on Quadratic Functions and Their Graphs |
| April-May  (5 weeks) | Irrational and Complex Numbers | MA.9-12.F-IF.C  MA.9-12.F-IF.C.7  MA.9-12.N-CN  MA.9-12.N-CN.A  MA.9-12.N-CN.A.1  MA.9-12.N-CN.A.2  MA.9-12.N-CN.A.3  MA.9-12.N-CN.B  MA.9-12.N-CN.B.4  MA.9-12.N-CN.B.5  MA.9-12.N-RN.B | Roots of real numbers  Properties of radicals  Sums of radicals  Binomials with radicals  Equations with radicals  Conjugates  Rational and irrational numbers  Imaginary number i  Complex numbers | Mathxlforschool.com  Presentation on Complex Numbers  Graphing Calculator | Imaginary Number Quiz  Simplifying Radicals Quiz  Unit Test on Complex Numbers |
| May  (5 weeks) | Rational Expressions | MA.9-12.A-APR  MA.9-12.A-APR.A  MA.9-12.A-APR.D.7  MA.9-12.N-Q.A  MA.9-12.N-Q.A.1  MA.9-12.N-Q.A.2  MA.9-12.N-Q.A.3  MA.9-12.N-RN.B  MA.9-12.N-RN.B.3 | Quotients of monomials  Zero and negative exponents  Add, subtract, multiply and divide rational expressions  Complex Fractions  Fractional coefficients and equations | Mathxlforschool.com  Group Project on Simplifying Rational Expressions  Graphing Calculator | Simplifying Complex Fractions Quiz  Simplifying Rational Expressions Quiz  Unit Test on Simplifying Rational Expressions Using Operations |
| June  (3 weeks) | Exponential Functions | MA.9-12.F-BF.A  MA.9-12.F-IF.B.4  MA.9-12.F-IF.C  MA.9-12.F-IF.C.7  MA.9-12.F-IF.C.7e  MA.9-12.F-LE.B.5 | Rational exponents  Real number exponents  Exponential growth and decay | Mathxlforschool.com  Rational Exponents Group Work  Graphing Calculator | Rational and Real Number Exponents Quiz |