

# High School Syllabus

**Department:** Mathematics

**Course #:** 40407W

**Course Title:** Keystone Algebra 1 Prep

**DESCRIPTION OF COURSE:**

This course is designed for students enrolled in Algebra 1, Practical Algebra 1B, and those who scored “Basic” on the Keystone Algebra 1 Exam. This course further prepares students for the Keystone Algebra 1 Exam by highlighting the following topics: Real Numbers, Linear Equations, Linear Inequalities, Functions and Lines, Systems, Exponents, Polynomials and Factoring, Radicals, Rational Expressions, and Data Analysis and Probability. The Algebra 1 Keystone Exam will be administered at the end of the course. Upon completion of the Algebra 1 Keystone Exam, students will continue to highlight Algebra 1 concepts and begin preparation for Algebra 2.

REQUIRED TOPICS OF STUDY	SUGGESTED INSTRUCTIONAL TIME	STANDARDS/ ELIGIBLE CONTENT
Foundations for Algebra	.5 week	CC.2.1.8.E.1, CC.2.1.HS.F.2, A1.1.1.1.1, A1.1.1.1.2, A1.1.1.3.1, A1.1.1.2.1
Solving Equations & Inequalities	4.5 weeks	CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, A1.1.2.1.1, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4
Graphs and Functions	1.5 weeks	CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4, CC.2.2.HS.C.5, CC.2.2.HS.C.6, A1.1.2.1.1, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4
Linear Functions & Their Graphs	3 weeks	CC.2.4.HS.B.3, A1.1.2.1.1, A1.1.2.1.2, A1.1.2.1.3, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2
Systems of Equations & Inequalities	2 weeks	CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, A1.1.2.1.1, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4
Exponents	1.5 weeks	CC.2.2.HS.C.5, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4, A2.1.3.1.1, A2.1.3.1.2, A2.1.3.1.3, A2.1.3.1.4, A2.2.1.1.1, A2.2.1.1.2, A2.2.1.1.3, A2.2.1.1.4, A2.2.2.1.1, A2.2.2.1.2, A2.2.2.1.3, A2.2.2.1.4, A2.2.2.2.1
Polynomials & Factoring	2 weeks	CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.5, CC.2.2.HS.D.6 A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3
Quadratic Equations & Functions	1.5 weeks	CC.2.2.HS.C.1, CC.2.2.HS.C.2, CC.2.2.HS.C.3, CC.2.2.HS.C.4, CC.2.2.HS.C.5, CC.2.2.HS.C.6, A1.1.2.1.1, A1.2.1.1.1, A1.2.1.1.2, A1.2.1.1.3, A1.2.1.2.1, A1.2.1.2.2, A1.2.2.1.1, A1.2.2.1.2, A1.2.2.1.3, A1.2.2.1.4
Radical Expressions & Equations	1.5 weeks	CC.2.1.HS, A2.2.1.1.1, A2.2.1.1.2, A2.2.3.1.1, A2.2.3.1.2
Rational Expressions & Functions	1.5 weeks	CC.2.2.HS.D.1, CC.2.2.HS.D.2, CC.2.2.HS.D.3, CC.2.2.HS.D.5, CC.2.2.HS.D.6 A1.1.1.5.1, A1.1.1.5.2, A1.1.1.5.3

**RESOURCES:** Textbook: Prentice Hall Algebra 1 2009; Workbook: Continental Keystone Finish Line 2013; Internet: Study Island; graphing calculator  
**Rev.:** 3/2015