Please Note:

All standards are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course are best answered by the individual teacher.

Teachers may use a wide variety of instructional materials throughout their course. The Possible Resources listed may include the district adopted instructional resource or supplemental resources that align to the topic and/or standard. These Possible Resources provide sample problems that align to the topic/standard.

Publisher Resource:

CollegePrepAlgebra.com

All standards are designed to be learned by the end of the course. This guide represents a recommended time line and sequence to be used voluntarily by teachers for planning purposes. Specific questions regarding when content will actually be addressed in a specific course is best answered by the individual teacher.

| | Week | Major Concepts / Topics | Possible Resources |
|-----------------|------------------|---|--|
| | 1 8/10 - 8/12 | Chapter 1 – The Real Number System Pre-test – Unit 1 Lesson 1.1 - Real Numbers and Lesson 1.2 - Add & Subtract Integers | Lesson 1.1 and 1.2 – <u>YouTube Video</u> Lesson 1.1 and 1.2 – <u>Khan Academy</u> |
| | | Lesson 1.3 - Multiplying & Dividing Integers and Lesson 1.4 - Operations with Rational Numbers and Topic 20 - Real number operations Lesson 1.5 - Exponents and Properties of Real Numbers and Topic 5 - Repeating | Lesson 1.3 and 1.4 – <u>YouTube Video</u> Lesson 1.3 and 1.4 – <u>Khan Academy</u> |
| | | Decimals • Assessment | Lesson 1.5 and Topic 5 – <u>YouTube Video</u> Lesson 1.5 and Topic 5 – <u>Khan Academy</u> |
| | | Chapter 2 - Fundamentals of Algebra Pre-test – Unit 2 Lesson 2.1 - Writing and Evaluating Algebraic Expressions | Lesson 2.1 – <u>YouTube Video</u> |
| | 2 8/15 – 8/19 | Lesson 2.2 - Simplifying Algebraic Expressions | Lesson 2.1 – <u>Khan Academy</u> Lesson 2.2 - <u>YouTube Video</u> Lesson 2.2 - <u>Khan Academy</u> |
| Quarter 1 | | Lesson 2.3 - Algebra and Problem Solving Lesson 2.4 - Introduction to Equations | Lesson 2.3 – <u>YouTube Video</u> Lesson 2.3 – <u>Khan Academy</u> Lesson 2.4 – <u>YouTube Video</u> |
| Aug 10 – Oct 14 | | Chapter 2 - Fundamentals of Algebra | Lesson 2.4 – <u>Khan Academy</u> |
| | 3 8/22 – 8/26 | Review Assessment Chapter 3 - Equations, Inequalities, and Problem Solving Unit 3 - Lesson 3.1 - Solving Linear Equations | Lesson 3.1 – <u>YouTube Video</u> Lesson 3.1 – <u>Khan Academy</u> |
| | | Lesson 3.2 - Equations that Reduce to Linear Form | Lesson 3.2 – <u>YouTube Video</u> Lesson 3.2 – <u>Khan Academy</u> |
| | 4 8/29 – 9/2 | Chapter 3 - Equations, Inequalities, and Problem Solving • Lesson 3.3 - Problem Solving with Percents | Lesson 3.3 – <u>YouTube Video</u> |
| | | Lesson 3.4 - Ratios and Proportions | Lesson 3.4 – <u>Khan Academy</u> Lesson 3.4 – <u>YouTube Video</u> Lesson 3.4 – <u>Khan Academy</u> |
| | 5 | Assessment Chapter 3 - Equations, Inequalities, and Problem Solving Topic 10 - Partitioning Segments | |
| | 9/6 – 9/9 | Lesson 3.5 - Geometric and Scientific Applications | Lesson 3.5 – <u>YouTube Video</u> Lesson 3.5 – <u>Khan Academy</u> |

| Chapter 3 - Equations, Inequalities, and Problem Solving | | | |
|--|--|------------------------------------|--|
| 6 | Lesson 3.6 - Linear Inequalities | Lessons 3.6 – <u>YouTube Video</u> | |
| | | Lessons 3.6 – Khan Academy | |
| 9/12 – 9/16 | Lesson 3.7 - Absolute Value Equations and Inequalities | Lessons 3.7 – <u>YouTube Video</u> | |
| | Assessment | Lessons 3.7 – Khan Academy | |
| | Chapter 4 - Graphs and Functions | | |
| | Unit 4 – Lesson 4.1 - Ordered Pairs and Graphs | Lesson 4.1 – <u>YouTube Video</u> | |
| 7 | | Lesson 4.1 – Khan Academy | |
| 0/10 0/22 | Lesson 4.2 - Graphs of Equations in Two variables | Lesson 4.2 – YouTube Video | |
| 9/19 – 9/23 | | Lesson 4.2 – Khan Academy | |
| | Lesson 4.3 - Relations, Functions, and Graphs | Lesson 4.3 – <u>YouTube Video</u> | |
| | Assessment | Lesson 4.3 – <u>Khan Academy</u> | |
| | Chapter 4 - Graphs and Functions | | |
| 8 | Lesson 4.4 - Slope and Graphs of Linear Equations | Lesson 4.4 – <u>YouTube Video</u> | |
| 9/26 – 9/30 | | Lesson 4.4 – Khan Academy | |
| 9/20 - 9/30 | Topic 16 - Graphing Proportional Relationships | | |
| | Assessment | | |
| | Chapter 4 - Graphs and Functions | | |
| 9 | Topic 9 - Step and Piecewise functions | | |
| 10/3 – 10/7 | Lesson 4.5 - Equations of Lines | Lesson 4.5 – <u>YouTube Video</u> | |
| | Topic 11 - Scatterplots and lines of Fit | Lesson 4.5 – <u>Khan Academy</u> | |
| | Chapter 4 - Graphs and Functions | | |
| 10 | Lesson 4.6 - Graphs of linear Inequalities | Lesson 4.6 – <u>YouTube Video</u> | |
| 10/10 – 10/14 | | Lesson 4.6 – Khan Academy | |
| | Assessment | | |

| | Week | Major Concepts / Topics | Possible Resources |
|------------------------------|--------------------|--|--|
| | 1 | Chapter 5 - Exponents and Polynomials Unit 5 - Lesson 5.1 - Integer Exponents, and Scientific Notation | Lesson 5.1 – <u>YouTube Video</u> Lesson 5.1 – <u>Khan Academy</u> |
| | 10/18 - 10/21 | Lesson 5.2 - Adding and Subtracting Polynomials | Lesson 5.2 – <u>YouTube Video</u> Lesson 5.2 – <u>Khan Academy</u> |
| | | • Assessment | |
| | 2 | Chapter 5 - Exponents and Polynomials Lesson 5.3 - Multiplying Polynomials; Special Products | Lesson 5.3 – <u>YouTube Video</u> Lesson 5.3 – <u>Khan Academy</u> |
| | 10/24 – 10/28 | Lesson 5.4 - Diving Polynomials and Synthetic Division | Lesson 5.4 – <u>YouTube Video</u> Lesson 5.4 – <u>Khan Academy</u> |
| | 3 10/31 – 11/4 | Chapter 5 - Exponents and Polynomials • Assessment Chapter 6 - Factoring and Solving Equations | |
| Overter 3 | | Unit 6 – Lesson 6.1 - Factoring Polynomials with Common Factors | Lesson 6.1 – <u>YouTube Video</u> Lesson 6.1 – <u>Khan Academy</u> |
| Quarter 2 Oct 18 – Dec 21 | | Lesson 6.2 - Factoring Trinomials | Lesson 6.2 – <u>YouTube Video</u> Lesson 6.2 – <u>Khan Academy</u> |
| | | Chapter 6 - Factoring and Solving Equations | 62 7 7 1 7 7 1 |
| | 4 11/7 – 11/10 | Lesson 6.3 - More about Factoring Trinomials | Lesson 6.3 – <u>YouTube Video</u> Lesson 6.3 – <u>Khan Academy</u> |
| | | Lesson 6.4 – Factoring Polynomials with Special Forms | Lesson 6.4 – <u>YouTube Video</u> Lesson 6.4 – <u>Khan Academy</u> |
| | | Assessment | |
| | 5 11/14 – 11/18 | Chapter 6 - Factoring and Solving Equations Lesson 6.4 - Factoring Polynomials with Special forms | Lesson 6.4 – <u>YouTube Video</u> Lesson 6.4 – <u>Khan Academy</u> |
| | | Lesson 6.5 - Solving Polynomial Equations by Factoring | Lesson 6.5 – <u>YouTube Video</u> Lesson 6.5 – <u>Khan Academy</u> |
| | 6 | Assessment Hait 7 Leasen 7.1 Patiental Evangesians and Evantions | Lesson 7.1 - YouTube Video |
| | 11/21 – 11/22 | Unit 7 – Lesson 7.1 Rational Expressions and Functions | Lesson 7.1 – <u>You Tube Video</u> Lesson 7.1 – <u>Khan Academy</u> |
| | 7 11/28 – 12/2 | Chapter 7 - Rational Expressions, Equations, and Functions Lesson 7.2 - Multiplying and Dividing Rational Expressions | Lesson 7.2 – <u>YouTube Video</u> Lesson 7.2 – <u>Khan Academy</u> |

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| | Assessment | |
| 8 12/5 – 12/9 | Chapter 7 - Rational Expressions, Equations, and Functions Lesson 7.3 - Adding and Subtracting Rational Expressions Lesson 7.4 - Complex Fractions Assessment | Lesson 7.3 – <u>YouTube Video</u> Lesson 7.3 – <u>Khan Academy</u> Lesson 7.4 - <u>YouTube Video</u> Lesson 7.4 – <u>Khan Academy</u> |
| 9 12/12 – 12/16 | Lesson 7.5 – Solving Rational EquationsAssessment | Lesson 7.5 - <u>YouTube Video</u> Lesson 7.5 - <u>Khan Academy</u> |
| 10 12/19 – 12/21 | Semester Review/District Exams | |

| | Week | Major Concepts / Topics | Possible Resources |
|----------------|-------------------------------------|---|---|
| | 1 | Chapter 7 - Rational Expressions, Equations, and Functions | |
| | 1/5 – 1/6 | Review Lesson 7.1 and 7.4 | |
| | 2 | Topic 15 – Graphing Rational Functions | Topic 15 - <u>YouTube Video</u> |
| | 1/9 – 1/13 | Lesson 7.5 – Solving Rational Equations | Lesson 7.5 - <u>YouTube Video</u> |
| | | | Lesson 7.5 – <u>Khan Academy</u> |
| | | Lesson 7-6 - Applications and Variation | Lesson 7.6 - <u>YouTube Video</u> |
| | | | Lesson 7.6 – <u>Khan Academy</u> |
| | 3 | • Assessment | |
| | 1/17 – 1/20 | Chapter 8 - Systems of Equations and Inequalities | Lesson 8.1 – YouTube Video |
| | | Unit 8 – Lesson 8.1 - Solving systems of Equations by Graphing and | Lesson 8.1 – Khan Academy |
| | | Substitution | 1 Indian Academy |
| | | Chapter 8 - Systems of Equations and Inequalities | |
| | 4 1/23 – 1/27 | Unit 8 – Lesson 8.1 - Solving systems of Equations by Graphing and | Lesson 8.1 – <u>YouTube Video</u> |
| | | Substitution | Lesson 8.1 – Khan Academy |
| | | Lesson 8.2 - Solving Systems of Equations by Elimination | Lesson 8.2 – <u>YouTube Video</u> Lesson 8.2 – Khan Academy |
| Quarter 3 | | | |
| Jan 5 – Mar 10 | 5 1/30 – 2/3 | • Lesson 8.6 – Systems of linear Inequalities | Lesson 8.6 – <u>YouTube Video</u> |
| | | | Lesson 8.6 – <u>Khan Academy</u> |
| | | • Assessment | Lesson 9.1 - YouTube Video |
| | | Lesson 9.1 - Radicals and Rational Exponents | Lesson 9.1 – Khan Academy |
| | | | Ecsson 5.1 Khan Academy |
| | 6 2/6 – 2/10 7 2/13 – 2/16 | Chapter 9 - Radicals and Complex Numbers | Lance O. 2. We T. be Ville |
| | | Lesson 9.2 – Simplifying Radical Expressions | Lesson 9.2 - <u>YouTube Video</u> Lesson 9.2 - <u>Khan Academy</u> |
| | | To d'a 40. The Distance France la | Topic 19 - YouTube Video |
| | | Topic 19 - The Distance Formula | Lesson 9.3 - YouTube Video |
| | | Lesson 9.3 – Adding and Subtracting Radical Expressions | Lesson 9.3 – Khan Academy |
| | | A A A A A A A A A A A A A A A A A A A | <u> </u> |
| | | Assessment Charter O. Redicale and Correlan Numbers | |
| | | Chapter 9 - Radicals and Complex Numbers Lesson 9.4 - Multiplying and Dividing Radical Expressions | Lesson 9.4 – YouTube Video |
| | | - Lesson 3.4 - Multiplying and Dividing Natical Expressions | Lesson 9.4 – <u>Khan Academy</u> |
| | | Topic 18 - Graphing Square and Cube Root Functions | |
| | | 9.5 – Radical Equations and Applications | |
| | | P. C. P. P. P. C. P. | Lesson 9.5 – <u>YouTube Video</u> |
| | | | Lesson 9.5 – <u>Khan Academy</u> |

| | 8 | Chapter 9 - Radicals and Complex Numbers | |
|--|------------------|---|-----------------------------------|
| | 2/21 – 2/24 | Lesson 9.6 - Complex Numbers | Lesson 9.6 – <u>YouTube Video</u> |
| | 2/21 - 2/24 | Assessment | Lesson 9.6 – <u>Khan Academy</u> |
| | _ | Chapter 10 - Quadratic Equations, Functions, and Inequalities | |
| | | Unit 10 – Lesson 10.1 - Solving Quadratic Equations | Lesson 10.1 - YouTube Video |
| | | | Lesson 10.1 – Khan Academy |
| | 9 | Lesson 10.2 - Completing the Square | Lesson 10.2 - YouTube Video |
| | 2/27 - 3/3 | | Lesson 10.2 – Khan Academy |
| | | Lesson 10.3 – Quadratic Formula | Lesson 10.3 - YouTube Video |
| | | | Lesson 10.3 – Khan Academy |
| | | | |
| | | Lesson 10.4 – Graphs of Quadratic Functions | Lesson 10.4 - YouTube Video |
| | 10 3/6 – 3/10 | | Lesson 10.4 – Khan Academy |
| | | Lesson 10.5 – Applications of Quadratic Equations | Lesson 10.5 - YouTube Video |
| | | | Lesson 10.5 – Khan Academy |
| | | Topic 8 – Symmetry and Behavior of Graphs | |
| | | Assessment | |
| | | 7.00000 | |

| | Week | Major Concepts / Topics | Possible Resources |
|------------------------------|---------------------|--|---|
| | 1 3/12 – 3/24 | Chapter 10 - Quadratic Equations, Functions, and Inequalities Lesson 10.6 - Quadratic and Rational Inequalities Assessment | Lesson 10.6 - <u>YouTube Video</u> Lesson 10.6 - <u>Khan Academy</u> |
| | 2 3/27 – 3/31 | Chapter 11 - Quadratic Equations, Functions, and Inequalities Lesson 11.1 - Exponential Functions Lesson 11.2 - Composite and Inverse Functions | Lesson 11.1 – <u>YouTube Video</u> Lesson 11.1 – <u>Khan Academy</u> Lesson 11.2 - <u>YouTube Video</u> Lesson 11.2 – <u>Khan Academy</u> |
| | 3 4/3 – 4/7 | Chapter 11 - Quadratic Equations, Functions, and Inequalities Lesson 11.3 - Logarithmic Functions Lesson 11.4 - Properties of Logarithms | Lesson 11.3 – <u>YouTube Video</u> Lesson 11.3 – <u>Khan Academy</u> Lesson 11.4 – <u>YouTube Video</u> Lesson 11.4 – <u>Khan Academy</u> |
| Quarter 4 Mar 21 – May 24 | 4 4/10 – 4/13 | Chapter 11 - Quadratic Equations, Functions, and Inequalities Lesson 11.5 - Solving Exponential and Logarithmic Equations Lesson 11.6 - Applications Topic 21 - Two-way tables Assesssment | Lesson 11.5 – <u>YouTube Video</u> Lesson 11.5 – <u>Khan Academy</u> Lesson 11.6 – <u>Khan Academy</u> Topic 21 - <u>YouTube Video</u> |
| | 5 4/17 – 4/21 | Chapter 12 - Conics Unit 12 - Lesson 12.1 - Circles and Parabolas Lesson 12.2 - Ellipses Assessment | Lesson 12.1 – <u>YouTube Video</u> Lesson 12.1 – <u>Khan Academy</u> Lesson 12.2 - <u>YouTube Video</u> Lesson 12.2 – <u>Khan Academy</u> |
| | 6 4/24 – 4/28 | Chapter 12 - Conics Lesson 12.3 – Hyperbolas Assessment | Lesson 12.3 – <u>YouTube Video</u> Lesson 12.3 – <u>Khan Academy</u> |
| | 7 5/1 – 5/5 8 | Lesson 12.4 - Solving non-linear systems of equations Assessment Project Pased Learning (Standards Poving) | Lesson 12.4 - <u>YouTube Video</u> Lesson 12.4 - <u>Khan Academy</u> |
| | 5/8 – 5/12 | Project Based Learning (Standards Review) | |

Mathematics for College Readiness

2016 - 2017

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| | | 9 | Project Based Learning (Standards Review) | | |
| | | 5/15 – 5/19 | | | |
| | | 10 | Final Exams | | |
| | | 5/22 – 5/24 | | | |