

Algebra 1/9th Grade Scope & Sequence

1 st Six Weeks (25 Days) 8/14/19 to 9/19/19	2 nd Six Weeks (27 Days) 9/24/19 to 11/1/19
<ul style="list-style-type: none"> ◆ Unit 0: The First Five Days (5 Days: Aug 14 - Aug 20) <ul style="list-style-type: none"> ➤ Big Ideas: “How can I feel safe, engaged and be comfortable while participating in meaningful learning?” “What are the SpringWay systems and routines?” “Who am I in this learning?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Create Social Contracts, Discuss Shared Voice ▪ Classroom Routines, Calculator Managements, Schoology Use ▪ Stations: procedures, roles and expectations. ➤ Process Standards: 1(D), 1(E), 1(F), 1(G) ◆ Unit 1: Function Relations and Function Notation (10 Days: Aug 21- Sep 5) <ul style="list-style-type: none"> ➤ Big Ideas: “How does input and output correspond when functions are evaluated?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Determine whether a relation is a function. ▪ Use function notation to write a relation or equation. ▪ Evaluate functions and function formulas. ➤ Readiness TEKS: 2(A), 2(C), 8(A) ➤ Supporting TEKS: 12(A), 12(B), 12(C), 12(D), 12(E) ◆ Unit 2: Key Features of Linear Functions (10 Days: Sep 6 - Sep 19) <ul style="list-style-type: none"> ➤ Big Ideas: “How do you identify key features of linear functions?” “What do the key features tell you about data mathematical and in the context of the situation?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Determine domain & range. ▪ Identify continuous and discrete functions. ▪ Identify key features of linear functions. ▪ Evaluate and solve linear functions. ➤ Readiness TEKS: 2(A), 3(B), 3(C), 5(A), 7(C) ➤ Supporting TEKS: 3(A), 12(B) <p style="text-align: right;">Processing Standards: 1(A thru G) Taught Throughout</p>	<ul style="list-style-type: none"> ◆ Unit 3: Linear Functions (27 Days: Sep 24 - Nov 1) <ul style="list-style-type: none"> ➤ Big Ideas: “How do you write and solve linear equations?” “What is the rate of change?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Write and solve linear equations in various forms, given a table of values, a graph and a verbal description. ▪ Derive the correlation coefficient and compare/contrast association and causation. ▪ Write the equation of parallel and perpendicular lines. ▪ Determine the slope of lines that are zero and undefined. ➤ Readiness TEKS: 2(A), 2(C), 3(B), 3(C), 5(A) ➤ Supporting TEKS: 2(B), 2(D), 2(E), 2(F), 2(G), 3(A), 4(A), 4(B), 4(C) <p style="text-align: right;">Processing Standards: 1(A thru G) Taught Throughout</p>

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3 rd Six Weeks (26 Days) 11/6/19 to 12/19/19	4 th Six Weeks (31 Days) 1/7/19 to 2/21/19
<p>◆ Unit 4: Systems of Linear Equations & Inequalities (26 Days: Nov 6-Dec 19)</p> <ul style="list-style-type: none"> ➤ Big Ideas: “What is the difference $<$ and \leq?” “How do you represent a situation using two systems of linear equations or linear inequalities?” ➤ Important Concepts: <ul style="list-style-type: none"> • Representing the solution of a linear inequality • Write and solve linear inequalities in various forms, given a table of values, a graph and a verbal description. • Graph the solution of linear inequalities. • Write, graph and solve two systems of linear equations and linear inequalities. • Determine the solution of two systems graphically, mathematically and in the context of the situation. ➤ Readiness TEKS: 2(C), 2(I), 3(D), (5A), 5(C) ➤ Supporting TEKS: 2(B), 2(H), 3(A), 3(F), 3(G), 3(H), 5(B) <p style="text-align: right; margin-top: 20px;">Processing Standards: 1(A thru G) Taught Throughout</p>	<p>◆ Unit 0: The First Five Days (5 days: Jan 7- Jan 13)</p> <ul style="list-style-type: none"> ➤ Big Ideas: “How can I feel safe, engaged and be comfortable while participating in meaningful learning?” “What are the SpringWay systems and routines?” “Who am I in this learning?” “Who am I in this learning?” ➤ Important Concepts: <ul style="list-style-type: none"> • Project Planning, MindMapping, and Self-Reflection • Updating Social Contracts, Discuss Shared Voice, • Reviewing Classroom Routines, Calculator Management and Schoology Routines ➤ Process Standards: 1(A), 1(B), 1(C), 1(D), 1(E), 1(F), 1(G) <p>◆ Unit 5: Polynomial Operations (26 Days: Jan 14 - Feb 21)</p> <ul style="list-style-type: none"> ➤ Big Ideas: “How do you simplify numerical and algebraic expressions using the laws of exponents?” “How do I simplify polynomials to prove equivalence?” ➤ Important Concepts: <ul style="list-style-type: none"> • Simplify expressions using laws of exponents. • Evaluate, rewrite and solve radical expressions using properties of exponents. • Simplify polynomials • Use the distributive property of polynomials • Factor polynomials ➤ Readiness TEKS: 10(E), 11(B) ➤ Supporting TEKS: 10(A), 10 (B), 10(D), 10(F), 11(A) <p style="text-align: right; margin-top: 20px;">Processing Standards: 1(A thru G) Taught Throughout</p>

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5 th Six Weeks (33 Days) 2/24/19 to 4/17/19	6 th Six Weeks (31 Days) 4/20/19 to 6/2/19
<ul style="list-style-type: none"> ◆ Unit 6: Quadratic Functions (16 Days: Feb 24 - Mar 24) <ul style="list-style-type: none"> ➤ Big Ideas: “What are the characteristics and attributes of quadratic functions?” “How can I solve quadratics to justify equivalence?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Determine the domain and range of quadratic functions. ▪ identify key attributes of of quadratic functions mathematically and graphically. ▪ Graph solutions of quadratic functions ▪ Solve quadratic functions ➤ Readiness TEKS: 6(A), 7(A), 7(C), 8(A), 10(E), 11(B) ➤ Supporting TEKS: 6(B), 6(C), 7(B), 8(B), 10(B), 10(F), 11(A) ◆ Unit 7: Exponential, Radical and Rational Expressions (12 Days: Mar 25 - Apr 9) <ul style="list-style-type: none"> ➤ Big Ideas: “How do I use exponential functions to describe real-world situations, including growth and decay?” “How do I graph and solve radical and rational functions?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Write and graph exponential functions. ▪ Interpret the meaning of the values in exponential functions. ▪ Use exponential functions to make predictions for real-world problems. ▪ Graph radical functions. ▪ Simplify radical expressions. ▪ Graph rational functions. ▪ Simplify and solve rational equations. ➤ Readiness TEKS: 9(C), 9(D), 2(A), 3(C), 6(A), 7(A), 8(A), 11(B) ➤ Supporting TEKS: 9(A), 9(B), 9(E), 8(B), 11(A), 12(B) ◆ Unit 8: Connecting to STAAR (5 Days: Apr 13 - Apr17) 	<ul style="list-style-type: none"> ◆ Unit 9: Connecting to STAAR (10 Days: Apr 20 - May 1) <ul style="list-style-type: none"> ➤ Big Ideas: “How do I connect my learning and prepare for STAAR”? Backwards design focuses on the assessed TEKS and those that have been highly tested. ➤ Important Concepts: <i>Data driven</i> - Refer to EOC Camp Review Weeks ➤ Readiness TEKS: <i>Data driven</i> - Refer to EOC Camp Review Weeks ➤ Supporting TEKS: <i>Data driven</i> - Refer to EOC Camp Review Weeks ◆ STAAR Administration (May 4 - May 8) <ul style="list-style-type: none"> ➤ Secondary Mathematics Testing Window ◆ Unit 10: Extensions of Algebra 1/Step Up to Geometry (15 Days: May 11 - June 1) <ul style="list-style-type: none"> ➤ Big Ideas: “How can I use the Pythagorean Theorem to solve problems?” “How do I write sequences?” “How can I extend my Algebra 1 skills to gear up for Geometry and Algebra 2?” ➤ Important Concepts: <ul style="list-style-type: none"> ▪ Determine the next terms in an arithmetic and geometric sequence ▪ Determine the quotient of a polynomial ▪ Solve quadratic equations by completing the square ▪ Apply trigonometric ratios to solve problems with right triangles ➤ Readiness TEKS: 2(A),3(B), 3(C), 6(A), 7(A), 7(C), 8(A), 9(D) ➤ Supporting TEKS: 3(E), 9(A), 9(B), 9(E), 10(C), 12(C), 12(D)



CURRICULUM AND
INSTRUCTION

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- Big Ideas: “How do I connect my learning and prepare for STAAR”? Backwards design focuses on the assessed TEKS and those that have been highly tested.
- Important Concepts: *Data driven* - Refer to EOC Camp Review Weeks
- Readiness TEKS: *Data driven* - Refer to EOC Camp Review Weeks
- Supporting TEKS: *Data driven* - Refer to EOC Camp Review Weeks

Processing Standards: 1(A thru G) Taught Throughout

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