Texas Algebra I Scope & Sequence

Unit 1: Algebra Foundations & Expressions (Weeks 1–2)

- ❑ Review real number operations, order of operations, and properties
- ❑ Simplify algebraic expressions
- ❑ Use variables and evaluate expressions
- ❑ TEKS: A.2A, A.2B, A.6A, A.12A

◈ Unit 2: Solving Equations and Inequalities (Weeks 3–5)

- ❑ Solve one-step and multi-step equations
- ❑ Solve inequalities and represent solutions on number lines
- ❑ Apply equations/inequalities to real-world problems
- ❑ TEKS: A.5A–A.5E, A.6B, A.6C, A.12A

◈ Unit 3: Relations, Functions, and Function Notation (Weeks 6–7)

- ❑ Identify domain and range
- ❑ Determine if a relation is a function
- ❑ Use function notation
- ❑ Interpret graphs and tables
- ❑ TEKS: A.3A–A.3E

◈ Unit 4: Linear Equations and Graphs (Weeks 8–10)

- ❑ Graph lines from equations and tables
- ❑ Understand slope as rate of change
- ❑ Determine x- and y-intercepts
- ❑ Write equations in slope-intercept, point-slope, and standard form
- ❑ TEKS: A.4A–A.4F

◈ Unit 5: Writing Linear Functions (Weeks 11–12)

- ❑ Write equations from tables, graphs, or two points
- ❑ Model real-world situations using linear functions
- ❑ Compare different representations of linear relationships
- ❑ TEKS: A.4A–A.4F, A.6A

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Unit 6: Systems of Equations and Inequalities (Weeks 13–15)

- ❑ Solve systems by graphing, substitution, and elimination
- ❑ Interpret solutions in context
- ❑ Graph systems of inequalities
- ❑ TEKS: A.5A–A.5D

Unit 7: Exponents and Exponential Functions (Weeks 16–18)

- ❑ Apply exponent rules (product, quotient, zero, negative)
- ❑ Convert between standard and scientific notation
- ❑ Graph and interpret exponential growth and decay
- ❑ TEKS: A.7A–A.7E

Unit 8: Polynomials and Factoring (Weeks 19–21)

- ❑ Add, subtract, and multiply polynomials
- ❑ Factor trinomials and special products
- ❑ Use factoring to solve quadratic equations
- ❑ TEKS: A.8A–A.8D

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Unit 9: Quadratic Functions and Equations (Weeks 22–25)

- ❑ Graph quadratics and identify key features (vertex, axis of symmetry)
- ❑ Write quadratic functions in different forms (standard, vertex, factored)
- ❑ Solve quadratics by factoring, completing the square, and quadratic formula
- ❑ TEKS: A.9A–A.9H

◈ Unit 10: Applications of Quadratic Functions (Weeks 26–27)

- ❑ Solve real-world problems involving quadratic functions
- ❑ Compare linear and quadratic models
- ❑ TEKS: A.9E–A.9H, A.6D

◈ Unit 11: Data Analysis and Statistics (Weeks 28–30)

- ❑ Represent and interpret data with scatterplots
- ❑ Calculate line of best fit and correlation coefficient
- ❑ Make predictions and evaluate strength of relationships
- ❑ Distinguish between correlation and causation
- ❑ TEKS: A.10A–A.10D

◈ Unit 12: Review, Projects, and STAAR Preparation (Weeks 31–36)

- ❑ Review key TEKS from all units
- ❑ Spiral review: linear, quadratic, exponential models
- ❑ Practice test-taking strategies
- ❑ Optional cumulative project or performance tasks
- ❑ TEKS: Integrated Review of A.2–A.12

Ongoing Throughout the Year

- ❑ Math process skills (TEKS A.1A–A.1G)
- ❑ Problem-solving models and justifying reasoning
- ❑ Vocabulary and math literacy
- ❑ Calculator skills and appropriate technology use