

SATEC Algebra I Timeline

Notes:

- * The time frame suggestions are based on a 90 minute class period, and allow for tests and quizzes to be administered.
- * This timeline assumes that the full 90 minutes are used. If another activity is planned, the SATEC lessons may need to be carried over into the next period.
- * Extra days are allotted for assessment.
- * All items listed in the Supplements, Assignments & Assessments listed are recommended to supplement the activities listed in each topic.
- * Complement each topic with supplements focused on skills as needed. Some supplements are found in the sample tests and others folder in each unit folder.

Unit One: Foundations for Functions (6 weeks)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts To Be Covered
Modeling and Patterns	3 Periods	1.01 Identifying Patterns 1.04 Models, Models, Everywhere	(b)(1)(B,C,D,E), (c)(1)(C), (b)(3)(B), (c)(3)(A,B) (b)(1)(B,D,E), (b)(2)(D), (b)(3)(B)	1.02 Identifying Patterns (R&A) 1.03 More Patterns Practice 1.05 Models... (R&A)	Identifying patterns, writing algebraic representations, graphing from a table
Domain and Range	3 Periods	1.06 Time Marches On 1.07 Distance Match	(b)(1)(A,B), (b)(2)(B,C) (b)(1)(A), (b)(2)(B,C), (C)(2)(A,B)	1.08 Domain/Range Practice 1.09 Domain/Range (HW) 1.10 Warmup Quiz	Domain, range, Indep./Dep Variables, interpreting graphs Solving equations (1 & 2 step)
Correlations	3 Periods	1.11 Correlation Study	(b)(1)(A,B,D,E), (b)(2)(B,D)	1.12 Correlation Study (R&A) 1.13 Correlation Warm-Up 1.14 Correlation Practice	Identifying types of correlations Domain, range, independent/dependent variables, graphing data Graphing data
Graphical Representations	1 Period	1.15 So That's How it Looks!	(b)(1)(D,E), (b)(2)(B)	1.16 So That's How it Looks! (R&A)	Graph Interpretation

Unit Two: Direct Variation (3.5 Weeks)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts to be Covered
Simple Proportion	3 Periods	2.01 The Wave	(b)(1)(B,C,D,E), (b)(2)(B,D), (b)(3)(B), (b)(4)(A), (c)(1)(B,C,D), (c)(2)(G), (c)(3)(A,B,C)	2.02 Wave (R&A)	Collecting Data, Graphing Ordered Pairs, Domain and Range, Dependent and Independent Variables, Simple Proportions
		2.03 Take My Measure		2.04 Proportions Quiz	
Direct Variation	3 Periods	2.06 Direct Variation	(b)(1)(C,D,E), (b)(2)(B), (b)(3)(B), (b)(4)(A), (c)(1)(B,C), (c)(2)(D,G), (c)(3)(A,B,C)	2.05 HW 1	Solving Simple Proportions
				2.07 HW 2	

Unit Three: Linear Functions (8.5 Weeks)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts To Be Covered
Rate of Change	1 Period	3.01.01 Slope Match	(b)(1)(B,E), (b)(2)(B,D), (b)(3)(B), (c)(1)(B), (c)(2)(A,F,G)	3.01.02 Slope Match (R&A) 3.01.04 What's My Slope? (R&A)	Rate of change from a graphical point of view, Find rate of change given two points, develop notion of slope=rate of change. Slope as a parameter change, slope of vertical/horizontal lines, connect slope w/ direct variation.
	1 Period	3.01.03 What's My Slope?	(a)(5), (c)(2)(A)	3.01.05 Rate of Change WS 3.01.07 Exploring Slope (R&A)	
	1 Period	3.01.06 Exploring Slope	(c)(2)(A,D,E,F)	3.01.08 Intro to Slope Quiz	
Pattern $y = mx + b$	2 Periods	3.02.01 Filler Up	(b)(1)(B,C,D,E), (b)(2)(C,D), (b)(3)(B), (c)(1)(C), (c)(2)(A)	3.02.02 Filler Up! (R&A) 3.02.03 Filler Up Quiz	Rate of change as a pattern from a table, solve linear equations (1&2 step), domain/range. Introduce meaning of y-intercept in application problems. Rate of change as a pattern from a table, solve linear equations (1 & 2 step), domain/range, y-intercept application problems, intro to parameter changes (slope, y-intercept).
	2 Periods	3.02.04 Weight of Money		3.02.05 Weight of Money (R&A) 3.02.06 Perimeter Quiz	

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Unit Three: Linear Functions ...Continued

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts To Covered
Parameter Changes	2 Periods	3.03.01 Linear Equation Plotter	(b)(2)(A), (c)(1)(C), (c)(2)(C,E,F)	3.03.04 Linear Graphs 3.03.05 Graphing $y=mx+b$ 3.03.06 $y=mx+b$ (R&A) 3.03.07 Slope Intercept Quiz	Graphing equation in $y=mx+b$, identify parameter changes numerically and graphically, standard form of equation. Write equations given two points.
	1 Period	3.03.02 Run Over It	(b)(2)(A), (c)(2)(C,D,E,F)		Write equations given two points.
	1 Period	3.03.03 Green Globs Activity	(b)(2)(A), (c)(1)(C), (c)(2)(C,D,E,F)		Write equations given two points.
Linear Modeling	2 Periods	3.04.02 Slope-Intercept Applications	(b)(1)(B,C,D,E), (b)(2)(B), (b)(3)(B), (b)(4)(A), (c)(1)(B,C), (c)(2)(A,D,E), (c)(3)(A,B,C)	3.04.01 Tables, Graphs, Eqs. Review 3.04.03 Slope-Intercept Appl.(R&A) 3.04.06 Linear Apps (R&A) 3.04.07 Quiz - Solving Eqs	Write equations given the slope and the y-intercept and apply it to problem solving.
	2 Periods	3.04.04 Word Problems Setup 3.04.05 Linear Applications			Write equations using a given or derived slope and y-intercept and solve a problem.
	2 Periods	3.04.08 Two Point Modeling	(b)(1)(C,D), (c)(1)(C), (c)(2)(D), (c)(3)(A,B,C)	3.04.09 Two Point Modeling R&A 3.04.10 Quiz - Writing Eqs	Write equations using two points for given applications.
Linear Inequalities	1 Period	3.05.01 Applications of Inequalities	(b)(1)(C,D) (c)(3)(A,B,C)		Solve Linear Inequalities with two variables

Unit Four: Systems of Equations and Inequalities (5.5 Weeks)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts to be Covered
Systems of Equations	2 Periods	4.01.01a Catching Up! Or 4.01.01b Collision	(b)(1)(A,B,C,D,E), (b)(2)(C,D), (b)(3)(A), (c)(1)(A,C), (c)(2)(A,B,C,D,E,F), (c)(3)(A,B,C), (c)(4)(A,B,C)	Calculator Addendum 4.01.02 Catching Up! (R&A) 4.01.03 Systems By Graphing	See notes on 4.0 README. Writing equations, solving equations, solving systems, graphing, domain, range.
	1 Period	4.01.04 How You Gonna Call?	(b)(1)(B,C,D), (b)(2)(A,B), (b)(3)(B), (c)(1)(B,C), (c)(2)(A,C,D,E,F), (c)(3)(A,B,C)	4.01.05 Action Copy (R&A)	Writing Equations, solving systems of equations
	1 1/2 Periods	4.01.06 Crossing Point	(b)(1)(A,B,C,D,E), (b)(2)(C,D), (b)(3)(A), (c)(1)(A,C), (c)(2)(A,B,C,D,E,F), (c)(3)(A,B,C), (c)(4)(A,B,C)	4.01.07 Meet for Lunch (R&A)	Writing Equations, solving systems of equations
	1 Period	4.01.08 Which Taxi to Take	B(1)(C, D, E), B(2)(C, D), B(3)(A), C(3)(B, C), C(4)(A, B, C)	4.01.09 Writing Systems	Setting up and solving systems of equations from applications
	1 Period	4.01.10 Substitution Method	C(3)(B)	4.01.11 Subst. Method (R&A)	Using substitution to solve for a system of equations.
	1 Period	4.01.12 Systems by Matrices	C(3)(B)	4.01.13 Solving Systems	Using matrices to solve for a system of equations. Using the calculator to solve the matrices.
Systems of Inequalities	1 Period	4.02.01 Over the Edge	C(3)(A), C(4)(A, B, C)		Exploring systems of inequalities, setting up the system and evaluating reasonable solutions
	1 Period	4.02.03 Part Time Jobs	(b)(1)(A,B,C,D,E), (b)(2)(C,D), (b)(3)(A), (c)(1)(A,C), (c)(2)(A,B,C,D,E,F), (c)(3)(A,B,C), (c)(4)(A,B,C)	4.02.02 Over the Edge (R&A)	Setting up and solving system of inequalities.
	1 Period	4.02.04 Graphing Inequalities	C(4)(B, C)		Using the method of graphing to solve a system of inequalities.

Unit Five: Quadratics and Polynomials (7.5 Weeks)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts to be Covered
Analyzing Parabolas and Parameter Changes Monomials	2 Periods	5.01 Sure Shot	(a)(5), (b)(1)(B,C,D,E), (d)(1)(A,B,C,D)	5.02 Sure Shot (R&A)	Exploring Quadratic functions as they occur in real life.
	1 Period	5.03 Quadratics Plotter	(a)(5), (b)(1)(B,C,D,E), (d)(1)(B,C,D)		Graphin Quadratic functions, parameter changes of these functions
	2 Periods	5.04a Adding Polynomials	B(3)(B, B(4)(A, B)	5.04b Getting Around the City 5.05 Polynomial Quiz	Adding polynomial expresions and solving equations
	2 Periods	5.06 Monomials Part 1 5.07 Monomials Part II	(b)(4)(A,B), (d)(3)(A)		Use laws of exponents to simplify and combine monomial expressions
	1 Period	5.08 Dividing Monomials	B(4)(B)		
Multiplication and factoring, roots and solutions	1 Period	5.09 PiP and Corraled	B(1)(C, D, E), B(2)(D), B(4)(A,B), D(2)(A)	5.10 Corral for Horses(R&A)	Using binomials to find the perimeter and area of a given situation. Addition, multiplication of binomals.
	1 Period	5.11 Box Method	(b)(4)(A,B)	5.12 Multiplying Polynomials	Multiplication of binomials
	1 Period	5.13 Box Method in Reverse	(b)(4)(A,B)		Factoring trinomials
	1 Period	5.14 Roots, Factors, Solutions	D(2)(A,B)		Making the connections between the roots, factors, and zeros of quadratic equations.
	1 Period	5.15 Planet Bball	D(2)(A,B)	5.16 The Diver (R&A)	Using the quadratic formula to solve quadratic equations and to find the vertex of the parabolas.

Unit Six: Other Functions (1 week)

Topic	Estimated Time to complete	Lesson name	TEKS	Supplements, Assignments, & Assessment	Mathematical Concepts to be Covered
Exponential	2 Periods	6.01 Strike it Rich!	(a)(3-6), (b)(1)(A,B,C,D), (d)(3)(A,C)	6.02 Early Inheritance	An exploration of exponential functions.