

Carnegie Learning
Suggested Summer School Pacing: Algebra I

<i>Day</i>	<i>Lesson</i>	<i>Mathematical Idea</i>
1	Introduction to Carnegie Learning Course	
1	1.6 \$8 an Hour Problem	<i>Using Multiple Representations, Part 1</i>
	1.8 U.S. Shirts	<i>Using Tables, Graphs, and Equations,</i>
2	1.9 Hot Shirts	<i>Using Tables, Graphs, and Equations,</i>
	1.10 Comparing U.S. Shirts and Hot Shirts	<i>Comparing Problem Situations Algebraically and Graphically</i>
3	2.4 TV News Ratings	<i>Ratios and Part-to-Whole Relationships</i>
	2.5 Women at a University	<i>Ratios, Part-to-Part Relationships, and Direct Variation</i>
	2.7 Taxes Deducted from Your Paycheck	<i>Percents and Taxes</i>
4	Assessment	
5	3.4 Rent a Car from Go-Go Car Rentals, Wreckem Rentals, and Good Rents Rentals	<i>Using Two-Step Equations,</i>
6	3.8 Engineering a Highway	<i>Using a Graph of a Two-Step Equation</i>
	4.1 Up, Up, and Away!	<i>Solving and Graphing Inequalities in one variable</i>
7	4.2 Moving a Sand Pile	<i>Relations and Functions</i>
	4.3 Let's Bowl!	<i>Evaluating Functions, Function Notation, Domain and Range</i>
8	4.4 Math Magic	<i>The Distributive Property</i>
	4.6 Technology Reporter	<i>Solving More Complicated Equations</i>
9	Assessment	
10	5.1 Widgets, Dumbbells, and Dumpsters	<i>Multiple Representations of Linear Functions</i>
	5.2 Selling Balloons	<i>Finding Intercepts of a Graph</i>
11	5.3 Recycling and Saving	<i>Finding the Slope of a Line</i>
	5.4 Running in a Marathon	<i>Slope-Intercept Form</i>
12	5.5 Saving Money	<i>Writing Equations of Lines</i>
	5.7 The School Play	<i>Standard Form of a Linear</i>
13	Assessment	

<i>Day</i>	<i>Lesson</i>	<i>Mathematical Idea</i>
14	6.1 Mia's Growing Like a Weed	<i>Drawing the Line of Best Fit</i>
15	6.5 Human Chain: Wrist Experiment	<i>Using Technology to Find a Linear Regression Equation</i>
16	7.1 Making and Selling Markers and T- Shirts	<i>Using a Graph to Solve a Linear System</i>
17	7.3 Hiking Trip	<i>Using Substitution to Solve a Linear System</i>
	7.4 Basketball Tournament	<i>Using Linear Combinations to Solve a Linear System</i>
18	7.7 Picking the Better Option	<i>Solving Linear Systems</i>
19	Assessment	
20	8.1 Website Design	<i>Introduction to Quadratic Functions</i>
21	8.2 Satellite Dish	<i>Parabolas</i>
22	8.3 Dog Run	<i>Comparing Linear and Quadratic Functions</i>
23	8.6 Kicking a Soccer Ball	<i>Using the Quadratic Formula to Solve Quadratic Functions</i>
23	8.7 Pumpkin Catapult	<i>Using a Vertical Motion Model</i>
24	Assessment	
25	9.2 Bits and Bytes	<i>Multiplying and Dividing Powers</i>
	9.3 As Time Goes By	<i>Zero and Negative Exponents</i>
26	9.5 The Beat Goes On	<i>Properties of Powers</i>
	10.2 Play Ball!	<i>Adding and Subtracting Polynomials</i>
27	10.3 Se Habla Español	<i>Multiplying and Dividing Polynomials</i>
	10.4 Making Stained Glass	<i>Multiplying Binomials</i>
28	10.5 Suspension Bridges	<i>Factoring Polynomials</i>
	10.6 Swimming Pools	<i>Rational Expressions</i>
29	Review	
30	Final	

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Software Suggestions

Students should be entering summer school with some prior work in Algebra I, it is our suggestion to start the students in Unit 4: *Linear Models and Independent Variables* and let them progress at their own pace. They will be working on linear relationships and solving equations through Unit 18: *Linear Equations with Variables on Both Sides*. The software then moves into working with Systems and Linear Inequalities. Working with quadratics begins in Unit 23: *Quadratic Models and Area* and continues through Unit 26: *Quadratic Models and Vertical Motion*. The work with exponents and polynomials begins in Unit 27: *Exponents* and continues through Unit 31: *Polynomial Addition and Subtraction*. You may want to consider moving students to the units on exponents when you are doing similar work from the text.

1	Linear Patterns
2	Linear Models and First Quadrant Graphs
3	One-Step Linear Equations
4	Linear Models and Independent Variables
5	Ratios and Proportions
6	Linear Models and Ratios
7	Two-Step Linear Equations
8	Linear Models and Two Quadrant Graphs
9	Linear Equations with Similar Terms
10	Linear Equations and the Distributive Property
11	Linear Models and the Distributive Property
12	Rational and Irrational Numbers
13	Linear Graphs and Slope-Intercept Form
14	Linear Models using Two Points
15	General Linear Form
16	Linear Models in General Form
17	Literal Equations
18	Linear Equations with Variables on Both Sides
19	Systems of Linear Equations Modeling

20	Systems of Linear Equations
21	Graphs of Linear Inequalities
22	Systems of Linear Inequalities
23	Quadratic Models and Area
24	Squares and Square Roots
25	Quadratic Equation Solving
26	Quadratic Models and Vertical Motion
27	Exponents
28	Scientific Notation
29	Product Rule for Exponents
30	Quotient Rule for Exponents
31	Polynomial Addition and Subtraction
32	Quadratics Factoring
33	Rational Expressions
34	Probability
35	Measures of Central Tendency
36	Pythagorean Theorem
37	Linear and Quadratic Transformations
38	Exponential Modeling