

Birmingham City Schools

Pre-AP ALGEBRA I

LTF PACING GUIDE

DAY/ NUMBER	LESSON PLAN	Alabama Course Of Study Objectives	ACT Objectives	Date
1	Discuss: course description, expectations (classroom rules and grading), materials and supplies (pencils, loose-leaf paper, graph paper, folders, etc.), and notebook organization (1)			8/20
2	<ul style="list-style-type: none"> Diagnostic / Pre-Test (1) 			8/21
	<p style="text-align: center;">Unit 1: Functions 12 days of instruction plus assessment time – 3 weeks total</p>			
3/4	<ul style="list-style-type: none"> LTF Lesson Introduction to Function Notation (1) Connecting a Verbal Description to Table and Graph (2) 	#4, # 12		8/22-23
5	<ul style="list-style-type: none"> Connecting a Verbal Description to Table and Graph (continued) 	#4, # 12		8/24
6	<ul style="list-style-type: none"> Use Tables and Graphs to Determine the Better Deal (2) 	#7a, #12		8/27
7	<ul style="list-style-type: none"> Use Tables and Graphs to Determine the Better Deal (continued) 	#7a, #12		8/28
8/9	<ul style="list-style-type: none"> Connecting Table Graph and Function Notation (2) 	#4, #12, #21, #24, #25, #28		8/29-30
10	<ul style="list-style-type: none"> Quiz 1.1 			8/31
Labor Day (No School) – 9/3				
11	<ul style="list-style-type: none"> Discrete and Continuous Data (2) 	#4, #12, #21, #25, #28		9/4
12/13	<ul style="list-style-type: none"> Discrete and Continuous Data (continued) Quiz 1.2 	#4, #12, #21, #25, #28		9/5-6
14	<ul style="list-style-type: none"> Step Functions (no LTF lesson – see resources) 	#30b		9/7
15	<ul style="list-style-type: none"> Functions with Different Representations 	#24		9/10
16	<ul style="list-style-type: none"> Quiz 1.3 			9/11
	<p style="text-align: center;">Unit 2: Graphing and Analyzing Linear Functions 17 days of instruction plus assessment time – 4 to 4.5 weeks total</p>			

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17/18	• Walk the Line (2)	#4, #5		9/12-13
19	• Average Rate of Change (1)	#29		9/14
20	• Calculating Average Rate of Change	#4, #27, #29		9/17
21	• Quiz 2.1			9/18
22/23	1 st 9-Weeks Midpoint • Slope Investigation (2)	#29		9/19-20
24	• Quiz 2.2			9/21
25	• Analysis of Functions (2)	#27		9/24
26	Progress Reports Go Home • Analysis of Functions (continued)	#27		9/25
27/28	• Write the equation of the Line Review (Direct Instruction -2 days/lesson 1 day)	#24		9/26-27
29	• Write the equation of the Line Review (continued)	#24		9/28
30	• Quiz 2.4			10/1
31	• Translations of Linear Functions (2.5)	#30a, #35		10/2
32/33	• Translations of Linear Functions(continued)	#30a, #35		10/3-4
34	• Piecewise Functions (1)	#29, #30b, #35		10/5
35	• Quiz 2.6			10/8
36	• Reading the Graph (1)			10/9
37/38	• Characteristics of Functions (1.5)	#25, #27, #29		10/10-11
39	• Quiz 2.7			10/12

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	Unit 3: Systems of Linear Equations 7 days of instruction plus assessment time – 2 weeks total			
40	• Literal equations- Reviewing and foreshadowing (2)	#14, #15, #16		10/15
41	• Literal equations- Reviewing and foreshadowing (continued)	#14, #15, #16		10/16
42/43	• Quiz 3.1 and / or 9 Weeks Test			10/17-18
44	• Linear Functions (1)	#11, #19, #46		10/19
45	End of 1st 9 Weeks			10/22
46	• Solve systems of two linear equations algebraically. (1) NO LTF lesson – see resources	#18, #19		10/23
47/48	• Solve systems of two linear equations by using the elimination method. (1)) NO LTF lesson – see resources	#18, #19		10/24-25
Teacher Workday – No Students				
49	• Solve systems of two linear equations by using the substitution method. (1)) NO LTF lesson – see resources	#18, #19		10/29
50	• Quiz 3.2			10/30
51/52	• Painting the House (1) • Early Dismissal @ 1:30p.m. Report Cards Go Home	#19		10/30-11/1
53	• Quiz 3.3			11/2
	Unit 4: Systems of Linear Inequalities 4 days of instruction plus assessment time – 1 week total			
54	• Solve linear inequalities in one variable (1) No LTF lesson – see resources	#16		11/5
55	• Graph the solution to linear inequalities (1) No LTF lesson – see resources	#16		11/6

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56/57	<ul style="list-style-type: none"> Maximizing Profit (2) 	#11, #13, #23		11/7-8
58	<ul style="list-style-type: none"> Quiz 4.1 & Quiz 4.2 			11/9
Veteran's Day – No School - 11/12				
	Unit 5: Graphing and Analyzing Exponential Functions 10 days of instruction plus assessment time – 2.5 weeks			
59	<ul style="list-style-type: none"> Exponential Function Exploration (2) 	#4, #11, #12, #25, #30c, #33a		11/13
60/61	<ul style="list-style-type: none"> Exponential Function Exploration (continued) Exponential Growth (2) 	#4, #11, #12, #25, #30c, #33a		11/14-15
62	<ul style="list-style-type: none"> Exponential Growth (continued) 	#11, #33a		11/16
63	<ul style="list-style-type: none"> How do start, How do you change? (1.5) 	#6, #7b, #24, #25, #27, #31b		11/19
64	<ul style="list-style-type: none"> How do start, How do you change? (continued) Review for Quiz 	#6, #7b, #24, #25, #27, #31b		11/20
Thanksgiving Holidays – NO School – 11/21-23				
65	<p style="text-align: center;">2nd 9-Weeks Midpoint</p> <ul style="list-style-type: none"> Quiz 5.1 			11/26
66	<ul style="list-style-type: none"> Use the properties of exponents to transform expression for exponential functions (No LTF lesson –see resources) 	#9d		11/27
67/68	<p style="text-align: center;">Progress Reports Go Home</p> <ul style="list-style-type: none"> Cool It! (2) 	#27, #29, #33b, #35, #40		11/28-29
69	<ul style="list-style-type: none"> Quiz 5.2 			11/30
70	<ul style="list-style-type: none"> Let's Make a Deal (2 days with no calculator knowledge) 	#7a, #22, #28, #37, #39		12/3

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71	<ul style="list-style-type: none"> Let's Make a Deal (continued with no calculator knowledge) 	#7a, #22, #28, #37, #39		12/4
72/73	<ul style="list-style-type: none"> Let's Make a Deal (1 day with calculator knowledge) Quiz 5.3 	#7a, #22, #28, #37, #39		12/5-6
	<p style="text-align: center;">Unit 6: Arithmetic and Geometric Sequences 6 days of instruction plus assessment time – 1.5 weeks</p>			
74	<ul style="list-style-type: none"> Writing Equations Using Sequence (2) 	#34, #38		12/7
75	<ul style="list-style-type: none"> Writing Equations Using Sequence (continued) 	#34, #38		12/10
76	<ul style="list-style-type: none"> Arithmetic Sequences (2) 	#34, #38		12/11
77/78	<ul style="list-style-type: none"> Arithmetic Sequences (continued) Quiz 6.1 	#34, #38		12/12-13
79	<ul style="list-style-type: none"> Limits-A Physical Approach (2) 	#26, #34, #38		12/14
80	<ul style="list-style-type: none"> Limits-A Physical Approach (continued) 	#26, #34, #38		12/17
81	<ul style="list-style-type: none"> Quiz 6.2 			12/18
82/83	<ul style="list-style-type: none"> Review Units 1, 2, 3, & 4 			12/19-20
84	<ul style="list-style-type: none"> Review Units 5 & 6 			12/21
Christmas Holidays – 12/24/12-1/1/13				
85/86	<ul style="list-style-type: none"> Review for Semester Exam 			1/2-3
87	<ul style="list-style-type: none"> Review for Semester Exam 			1/4
88	<ul style="list-style-type: none"> Semester Exams – 1st, 3rd, 5th 			1/7
89	<ul style="list-style-type: none"> Semester Exams – 2nd, 4th, 6th 			1/8
90/91	<ul style="list-style-type: none"> Semester Exam – 7th, Make-up End of 1st Semester 			1/9-10

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	Unit 7: Descriptive Statistics and Conditional Probability 14 days of instructional days plus assessment time-3 weeks			
92	• Fitting a Line to Data (2)	#45		1/11
93	• Fitting a Line to Data (continued)	#45		1/14
94	• Study of Population Growth (2 or 3)	#6, #21, #33, #40, #45 #47		1/15
95/96	Report Cards Go Home • Study of Population Growth (continued)	#6, #21, #33, #40, #45 #47		1/16-1/17
97	• Correlation and causation (.5) No LTF Lesson- Use the following link http://www.khanacademy.org/math/statistics/v/correlation-and-causality	#6, #21, #33, #40, #45, #47		1/18
Martin Luther King, Jr. Holiday – NO SCHOOL				
98	• Quiz 7.1			1/22
99/100	• Measures of Central Tendencies (1)	#43		1/23-1/24
101	• Quiz 7.2			1/25
102	• Bar Graphs and Histograms (1)	#41		1/28
103	• Quiz 7.3			1/29
104/105	• Box and Whisker Plots (2)	#41, #42, #43		1/30-1/31
106	• Use Dot plots (line plots) to Determine Mean, Median, Mode, and Range (1)	#41		2/1
107	• Quiz 7.4			2/4
108	• Two-way Frequency Tables (1)	#44		2/5
109/110	• Movie Probability (1) • Probability of Compound Events	#44, #49 #50		2/6-2/7

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111	<ul style="list-style-type: none"> Quiz 7.5 			2/8
	Unit 8: Pythagorean Theorem, Radicals and Rational Exponents 6 days of instruction plus assessment time- 1.5 weeks			
112	<ul style="list-style-type: none"> Solve Quadratic Equations by inspection and by taking square roots (3)- No LTF lesson- see resources 	#17b		2/11
113	3 rd 9-Weeks Midpoint			2/12
114/115	<ul style="list-style-type: none"> Solve Quadratic Equations by inspection and by taking square roots (Continued)- No LTF lesson- see resources 	#17b		2/13-2/14
116	<ul style="list-style-type: none"> Proof of the Pythagorean Theorem (1)-No LTF- see resources 			2/15
District-wide Professional Development – No Students				
117	<p style="text-align: center;">Progress Reports Go Home</p> <ul style="list-style-type: none"> Apply the Pythagorean Theorem in a Coordinate System 			2/19
118/119	<ul style="list-style-type: none"> Pythagorean Theorem Applications Problems #1-4 (1) Quiz 8.1 			2/20-2/21
	Unit 9: Polynomials 8 days of instruction plus assessment time- 2 weeks total			
120	<ul style="list-style-type: none"> Powers and Exponents (No LTF lesson- see resources) 	#1, #2		2/22
121	<ul style="list-style-type: none"> Multiply and Divide Monomials (No LTF lesson- see resources) 	#1, #2		2/25
122	<ul style="list-style-type: none"> Powers of Monomials (No LTF lesson- see resources) 	#1, #2		2/26
123/124	<ul style="list-style-type: none"> Negative Exponents Compute with Scientific Notation (No LTF lesson- see resources) 	#1, #2		2/27-2/28
125	<ul style="list-style-type: none"> Quiz 9.1 			3/1
126	<ul style="list-style-type: none"> Add and Subtract Polynomial Expressions (No LTF lesson- see resources) 	#10		3/4

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127	<ul style="list-style-type: none"> Multiply Polynomial Expressions (No LTF lesson- see resources) 	#10		3/5
	Unit 10: Graphing and Analyzing Quadratic Functions 6 instructional days plus assessment time – 1.5 weeks total			
128/129	<ul style="list-style-type: none"> Quiz 9.2 Investigation – Graphing Quadratic Functions (2) 	#9c, #12, #27, #29, #35		3/6-3/7
130	<ul style="list-style-type: none"> Investigation – Graphing Quadratic Functions (continued) 	#9c, #12, #27, #29, #35		3/8
131	<ul style="list-style-type: none"> Quiz 10.1 			3/11
132	<ul style="list-style-type: none"> Graphing Quadratic Functions – Example 1 (2) 	#27, #30a		3/12
133/134	<ul style="list-style-type: none"> Graphing Quadratic Functions – Example 1 (continued) 	#27, #30a		3/13-3/14
135	<ul style="list-style-type: none"> Quiz 10.2 3rd 9 Weeks Exam End of 9 Weeks 			3/15
136	Alabama High School Graduation Exam Week			
137	BIOLOGY	MONDAY	MARCH 18, 2013	
	MATHEMATICS	TUESDAY	MARCH 19, 2013	
	READING	WEDNESDAY	MARCH 20, 2013	
138/139	SOCIAL STUDIES	THURSDAY	MARCH 21, 2013	
	LANGUAGE	FRIDAY	MARCH 22, 2013	
140				
Spring Break – March 25-29				
141	Report Cards go home			4/1
142	<ul style="list-style-type: none"> Quadratic Optimization (2) 	#9c, #12, #27		4/2
143/144	<ul style="list-style-type: none"> Quadratic Optimization (continued) Quiz 10.3 	#9c, #12, #27		4/3-4/4
	Unit 11: Factoring and the Quadratic Formula 21 days of instruction plus assessment time- 5.5 weeks			

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145	• Pearson Algebra I Textbook: Solving Quadratic Equations (9-3)	#3, #8, #9a, #17b		4/5
146	• Pearson Algebra I Textbook: Factoring to Solve Quadratic Equations (9-4)	#3, #8, #9a, #17b		4/8
147	• Pearson Algebra I Textbook: Factoring to Solve Quadratic Equations (continued)	#3, #8, #9a, #17b		4/9
148/149	• Pearson Algebra I Textbook: Completing the Square (9-5)	#17a, #17b, #31a		4/10-4/11
150	• Pearson Algebra I Textbook: Mid Chapter Quiz pg. 575			4/12
151	• Pearson Algebra I Textbook: The Quadratic Formula and the Discriminant (9-6)	#17a, #17b		4/15
152	• The Quadratic Formula and the Discriminant (continued)	#17a, #17b		4/16
153-154	• Pearson Algebra I Textbook: Linear, Quadratic, and Exponential Models (9-7)	#9b, #17a, #17b, #31a		4/17-4/18
155	• Pearson Algebra I Textbook: Systems of Linear and Quadratic Equations (9-8)	#9b, #17a, #17b, #31a		4/19
156	• Early Dismissal Day Pearson Algebra I Textbook: Systems of Linear and Quadratic Equations (9-8)	#9b, #17a, #17b, #31a		4/22
157	• High School Mathematics Tournament • Review Factoring and the Quadratic formula			4/23
158/159	• 4th 9-Weeks Midpoint Quiz/ Chapter 9 Assessment			4/24-4/25
160	• Another way to look at factoring (2 or 3)	#7a, #7b, #9a, #17b		4/26
161	• Progress Reports Go Home • Another way to look at factoring (Continued)	#7a, #7b, #9a, #17b		4/29
162	• Another way to look at factoring (continued)	#7a, #7b, #9a, #17b		4/30
163/164	• Graphing Quadratic Functions-Example 2 and Problems #1 and #2 (3)	#11, #28, #29, #31a, #33, #45a		5/1-5/2
165	• Graphing Quadratic Functions-Example 2 and Problems #1 and #2 (continued)	#11, #28, #29, #31a, #33, #45a		5/3

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166	Quiz 11.1			5/6
	Unit 12: Analyzing families of Functions and Piecewise Functions 12 days of instruction plus assessment time-1.5 weeks			
167	<ul style="list-style-type: none"> • Characteristics of Functions (4) 	#21, #27 28#, #30b, #35, #36, #39		5/7
168/169	<ul style="list-style-type: none"> • Characteristics of Functions (Cont...) 	#21, #27 28#, #30b, #35, #36, #39		5/8-5/9
170	<ul style="list-style-type: none"> • Characteristics of Functions (Cont...) 	#21, #27 28#, #30b, #35, #36, #39		5/10
171	<ul style="list-style-type: none"> • Transformations of Functions Exploration (2) 			5/13
172	<ul style="list-style-type: none"> • Transformations of Functions Exploration (continued) 			5/14
173/174	<ul style="list-style-type: none"> • Even/Odd Functions (2) 			5/15-5/16
175	<ul style="list-style-type: none"> • Even/Odd Functions (continued) 			5/17
176	<ul style="list-style-type: none"> • Semester Exams – 1st, 3rd, 5th 			5/20
177	<ul style="list-style-type: none"> • Semester Exams – 2nd, 4th, 6th 			5/21
178/179	<ul style="list-style-type: none"> • Semester Exam – 7th & Make-up 			5/22-5/23
180	Report Cards Go Home			5/24