

# Glencoe/McGraw-Hill Pacing and Correlation

## Glencoe *Algebra 2* to the California Mathematics Academic Content Standards, *Algebra 2*

The total number of days in the suggested Pacing is 170 days including 2 days per chapter for reviewing and testing (except chapters 12, 13, and 14). This allows for teacher flexibility in planning due to testing, school cancellation, or shortened class periods.

\*Pacing Legend:

Basic = This lesson directly addresses a California Math Standard.

Prerequisite = This lesson addresses a prerequisite skill students will need in order to master a California Math Standard.

Optional = This lesson does not directly address any California Math Standard.

Student Edition Lesson	Standard	Pacing*	
		Type of Lesson	Number of Days
<b>Chapter 1</b>	<b>Analyzing Equations and Inequalities</b>		
1-1A		Prerequisite	$\frac{1}{2}$
1-1		Prerequisite	$\frac{1}{2}$
1-2	11.2	Basic	2
1-3		Optional	0
1-4	11.2	Basic	2
1-5A		Optional	0
1-5	1	Basic	2
1-6		Prerequisite	1
1-7	1	Basic	2
Reviewing and Testing			2
<b>Chapter 2</b>	<b>Graphing Linear Relations and Functions</b>		
2-1	5	Basic	2
2-2A	5	Basic	$\frac{1}{2}$
2-2	5	Basic	2
2-2B		Prerequisite	$\frac{1}{2}$
2-3	24	Basic	2
2-4		Prerequisite	1
2-5		Optional	0
2-5B		Optional	0
2-6	1, 24	Basic	2
2-7A		Prerequisite	$\frac{1}{2}$
2-7		Prerequisite	$\frac{1}{2}$

Student Edition Lesson	Standard	Pacing*	
		Type of Lesson	Number of Days
Reviewing and Testing			2
<b>Chapter 3</b>	<b>Solving Systems of Linear Equations and Inequalities</b>		
3-1A	2, 5	Basic	$\frac{1}{2}$
3-1	2, 5	Basic	$1\frac{1}{2}$
3-2	2, 5, 25	Basic	2
3-3	2	Basic	2
3-4A	2	Basic	$\frac{1}{2}$
3-4	1, 2	Basic	$1\frac{1}{2}$
3-5	2, 10	Basic	2
3-6	2	Basic	2
3-7	2, 25	Basic	$1\frac{1}{2}$
3-7B	2, 5	Basic	$\frac{1}{2}$
Reviewing and Testing			2
<b>Chapter 4</b>	<b>Using Matrices</b>		
4-1A		Optional	0
4-1	2	Basic	2
4-2		Prerequisite	1
4-3		Prerequisite	1
4-4		Optional	0
4-5	2	Basic	2
4-6	2	Basic	2
4-7	2	Basic	$1\frac{1}{2}$
4-7B	2	Basic	$\frac{1}{2}$
4-8		Optional	0
Reviewing and Testing			2
<b>Chapter 5</b>	<b>Exploring Polynomials and Radical Expressions</b>		
5-1	7	Basic	1
5-2	3	Basic	2
5-3	3	Basic	2
5-4	3, 4	Basic	2
5-5	3	Basic	2
5-6	15	Basic	2
5-7	15	Basic	2
5-8	15	Basic	2
5-9	5, 6, 8	Basic	2
5-10	5, 6	Basic	2

Student Edition Lesson	Standard	Pacing*	
		Type of Lesson	Number of Days
Reviewing and Testing			2
<b>Chapter 6</b>	<b>Exploring Quadratic Functions and Inequalities</b>		
6-1A	10, 24	Basic	$\frac{1}{2}$
6-1	5, 10, 24	Basic	$1\frac{1}{2}$
6-2	5, 8	Basic	2
6-3	4, 8, 25	Basic	2
6-4	8, 25	Basic	2
6-5	8	Basic	2
6-6A	9	Basic	$\frac{1}{2}$
6-6	10	Basic	$1\frac{1}{2}$
6-7A	5, 10	Basic	$\frac{1}{2}$
6-7	5, 10, 25	Basic	$1\frac{1}{2}$
6-8		Optional	0
6-9		Optional	0
Reviewing and Testing			2
<b>Chapter 7</b>	<b>Analyzing Conic Sections</b>		
7-1		Optional	0
7-2	16, 25	Basic	2
7-3		Prerequisite	1
7-4A	16	Basic	$\frac{1}{2}$
7-4	16	Basic	$1\frac{1}{2}$
7-5	16	Basic	2
7-6A	16, 17	Basic	$\frac{1}{2}$
7-6	16, 17	Basic	$1\frac{1}{2}$
7-6B	16	Basic	$\frac{1}{2}$
7-7A	5	Basic	$\frac{1}{2}$
7-7		Optional	0
Reviewing and Testing			2
<b>Chapter 8</b>	<b>Exploring Polynomial Functions</b>		
8-1	10, 24, 25	Basic	1
8-2		Prerequisite	1
8-3A	24	Basic	$\frac{1}{2}$
8-3	5, 24	Basic	1
8-3B	5	Basic	$\frac{1}{2}$
8-4	10	Basic	2

Student Edition Lesson	Standard	Pacing*	
		Type of Lesson	Number of Days
8-5	10	Basic	2
8-6	25	Basic	1
8-7	24, 25	Basic	2
8-7B		Optional	0
8-8	24	Basic	$1\frac{1}{2}$
8-8B	25	Basic	$\frac{1}{2}$
Reviewing and Testing			2
<b>Chapter 9</b>	<b>Exploring Rational Expressions</b>		
9-1A	5, 24	Basic	$\frac{1}{2}$
9-1	5, 24, 25	Basic	$1\frac{1}{2}$
9-2		Optional	0
9-3	7, 15	Basic	2
9-4	7	Basic	2
9-5		Optional	0
Reviewing and Testing			2
<b>Chapter 10</b>	<b>Exploring Exponential and Logarithmic Functions</b>		
10-1A	24	Basic	$\frac{1}{2}$
10-1	11.1, 11.2, 12, 25	Basic	1
10-1B	12	Basic	$\frac{1}{2}$
10-2	11, 11.1, 11.2, 14, 15, 24, 25	Basic	2
10-3	11, 11.1, 11.2, 13, 14, 15	Basic	2
10-4	11, 11.1, 14	Basic	2
10-5	11, 11.1, 11.2, 14	Basic	2
10-6	11.1, 11.2, 12, 13, 14	Basic	2
10-7	11.1, 12, 15	Basic	2
Reviewing and Testing			2
<b>Chapter 11</b>	<b>Investigating Sequences and Series</b>		
11-1A	22	Basic	$\frac{1}{2}$
11-1	22	Basic	$1\frac{1}{2}$
11-2	22, 23	Basic	2
11-3	22	Basic	2
11-4	22, 23	Basic	2
11-5	22, 23	Basic	2
11-6		Optional	0
11-7		Optional	0
11-8	20	Basic	2

Student Edition Lesson	Standard	Pacing*	
		Type of Lesson	Number of Days
Reviewing and Testing			2
<b>Chapter 12</b>	<b>Investigating Discrete Mathematics and Probability</b>		
12-1		Prerequisite	1
12-2	18, 19	Basic	2
12-3	18, 19	Basic	2
12-4		Optional	0
12-5		Optional	0
12-6		Optional	0
12-7		Optional	0
12-8		Optional	0
Reviewing and Testing			1
<b>Chapter 13</b>	<b>Exploring Trigonometric Functions</b>		
13-1		Prerequisite	1
13-2		Prerequisite	1
13-3		Prerequisite	1
13-4		Optional	0
13-5		Optional	0
13-6		Optional	0
13-7	24, 25	Basic	2
Reviewing and Testing			1
<b>Chapter 14</b>	<b>Using Trigonometric Graphs and Identities</b>		
14-1A	5	Basic	$\frac{1}{2}$
14-1	5	Basic	$1\frac{1}{2}$
14-2		Optional	0
14-3A		Optional	0
14-3		Optional	0
14-4		Optional	0
14-5		Optional	0
14-6A		Optional	0
14-6		Optional	0
Reviewing and Testing			1

# GLENCOE/McGRAW-HILL CORRELATION

The California Mathematics Academic Content Standards,  
Algebra 2 to Glencoe *Algebra 2*

STANDARDS	LESSON REFERENCES
1. Students solve equations and inequalities involving absolute value.	1-5, 1-7, 2-6, 3-4
2. Students solve systems of linear equations and inequalities (in two or three variables) simultaneously, by substitution, graphically, or with matrices.	3-1A, 3-1, 3-2, 3-3, 3-4A, 3-4, 3-5, 3-6, 3-7, 3-7B, 4-1, 4-5, 4-6, 4-7, 4-7B
3. Students are adept at operations on polynomials, including long division.	5-2, 5-3, 5-4, 5-5
4. Students factor polynomials representing the difference of squares, perfect square trinomials, and the sum and difference of two cubes.	5-4, 6-3
5. Students demonstrate knowledge of how real and complex numbers are related both arithmetically and graphically. In particular, they can plot complex numbers as points in the plane.	2-1, 2-2A, 2-2, 3-1A, 3-1, 3-2, 3-7B, 5-9, 5-10, 6-1, 6-2, 6-7A, 6-7, 7-7A, 8-3, 8-3B, 9-1A, 9-1, 14-1A, 14-1
6. Students add, subtract, multiply, and divide complex numbers.	5-9, 5-10
7. Students add, subtract, multiply, divide, reduce and evaluate rational expressions with monomial and polynomial denominators, and simplify complicated fractions including fractions with negative exponents in the denominator.	5-1, 9-3, 9-4
8. Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.	5-9, 6-2, 6-3, 6-4, 6-5
9. Students demonstrate and explain the effect changing a coefficient has on the graph of quadratic functions. That is, students can determine how the graph of a parabola changes as $a$ , $b$ , and $c$ vary in the equation $y = a(x - b)^2 + c$ .	6-6A
10. Students graph quadratic functions and determine the maxima, minima, and zeros of the function.	3-5, 6-1A, 6-1, 6-6, 6-7A, 6-7, 8-1, 8-4, 8-5

STANDARDS		LESSON REFERENCES
11.	Students prove simple laws of logarithms.	10-2, 10-3, 10-4, 10-5
11.1	Students understand the inverse relationship between exponents and logarithms, and use this relationship to solve problems involving logarithms and exponents.	10-1, 10-2, 10-3, 10-4, 10-5, 10-6, 10-7
11.2	Students judge the validity of an argument based on whether the properties of real numbers, exponents, and logarithms have been applied correctly at each step.	1-2, 1-4, 10-1, 10-2, 10-3, 10-5, 10-6
12.	Students know the laws of exponents, understand exponential functions, and use these functions in problems involving exponential growth and decay.	10-1, 10-1B, 10-6, 10-7
13.	Students use the definition of logarithms and the product formula for logs to translate between logarithms in any bases.	10-3, 10-6
14.	Students understand and use the properties of logarithms to simplify logarithmic numeric expressions and identify their approximate values.	10-2, 10-3, 10-4, 10-5, 10-6
15.	Students determine if a specific algebraic statement involving rational expressions, radical expressions, logarithmic or exponential functions, is sometimes true, always true, or never true.	5-6, 5-7, 5-8, 9-3, 10-2, 10-3, 10-7
16.	Students demonstrate and explain how the geometry of the graph of a conic section (e.g., asymptotes, foci, eccentricity) depends on the coefficients of the quadratic equation representing it.	7-2, 7-4A, 7-4, 7-5, 7-6A, 7-6, 7-6B
17.	Given a quadratic equation of the form $ax^2 + by^2 + cx + dy + e = 0$ , students can use the method of completing the square to put the equation into standard form and can recognize whether its graph is a circle, ellipse, parabola, or hyperbola. Students can then graph the equation.	7-6A, 7-6
18.	Students use fundamental counting principles to compute combinations and permutations.	12-2, 12-3
19.	Students use combinations and permutations to compute probabilities.	12-2, 12-3
20.	Students know the Binomial Theorem and use it to expand binomial expressions which are raised to positive integer powers.	11-8
21.	Students apply the method of mathematical induction to prove general statements about the positive integers.	See Glencoe <i>Advanced Mathematical Concepts</i> Lessons 9-8, 12-8

<b>STANDARDS</b>		<b>LESSON REFERENCES</b>
22.	Students find the general term and the sums of arithmetic series and both finite and infinite geometric series.	11-1A, 11-1, 11-2, 11-3, 11-4, 11-5
23.	Students derive the summation formulas for arithmetic series and both finite and infinite geometric series.	11-2, 11-4, 11-5
24.	Students solve problems involving functional concepts such as composition, inverse, and arithmetic operations on functions.	2-3, 2-6, 6-1A, 6-1, 8-1, 8-3A, 8-3, 8-7, 8-8, 9-1A, 9-1, 10-1A, 10-2, 13-7
25.	Students use properties from number systems to justify steps in combining and simplifying functions.	3-2, 3-7, 6-3, 6-4, 6-7, 7-2, 8-1, 8-6, 8-7, 8-8B, 9-1, 10-1, 10-2, 13-7