

Pre-Algebra 3rd Edition – Lesson Plan Overview

Chapter 1: Operations with Integers

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
1.1 Opposites and Absolute Value				
1–6	<p>1.1.1 Order integers by using number lines.</p> <p>1.1.2 Explain that the usefulness of number lines depends on the assumption of an orderly world.</p> <p>BWS Design: Creation (explain)</p> <p>1.1.3 State the opposite of an integer.</p> <p>1.1.4 Find the absolute value of an integer.</p>	<p>Materials</p> <ul style="list-style-type: none"> number line paper number line for display (Use internet keyword search <i>printable number line</i>.) 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Opposites and Absolute Value 	<ul style="list-style-type: none"> Bell ringer (p. 1) Skill Checks (pp. 1–4) Exercises
1.2 Adding and Subtracting Integers				
7–13	<p>1.2.1 Evaluate a sum of integers by using a number line and by applying rules.</p> <p>1.2.2 Evaluate a difference of integers as the sum of the opposite.</p> <p>1.2.3 Explain what it means to number.</p> <p>BWS Design: Creation (explain)</p>	<p>Activities</p> <ul style="list-style-type: none"> Sum Circles Adding and Subtracting Integers 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Adding and Subtracting Integers 	<ul style="list-style-type: none"> Bell ringer (p. 7) Skill Checks (pp. 8–9, 11) Exercises
1.3 Properties of Addition				
14–19	<p>1.3.1 Identify the properties of addition.</p> <p>1.3.2 Use the properties of addition to write equivalent expressions.</p> <p>1.3.3 Determine whether a given set of numbers is closed under addition.</p>	<p>Activity</p> <ul style="list-style-type: none"> Properties of Addition <p>Assessment</p> <ul style="list-style-type: none"> Quiz 1A 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Properties of Addition 	<ul style="list-style-type: none"> Bell ringer (p. 14) Skill Checks (pp. 15–17) Exercises Quiz 1A (Sections 1.1–1.3)
Activity: Clock Arithmetic				
		<p>Activity</p> <ul style="list-style-type: none"> Clock Arithmetic 		<ul style="list-style-type: none"> Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
1.4 Multiplying and Dividing Integers				
20–27	<p>1.4.1 Evaluate a product of integers.</p> <p>1.4.2 Evaluate a quotient of integers.</p> <p>1.4.3 Explain how multiplication and division help people organize and predict.</p> <p>BWS Design: Creation (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Multiplying and Dividing Integers 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Multiplying and Dividing Integers 	<ul style="list-style-type: none"> • Bell ringer (p. 20) • Skill Checks (pp. 21–22, 24) • Exercises
1.5 Properties of Multiplication				
28–33	<p>1.5.1 Identify the properties of multiplication.</p> <p>1.5.2 Apply the properties of multiplication to write equivalent expressions.</p> <p>1.5.3 Determine whether a set of numbers is closed under multiplication.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Properties of Multiplication <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 1B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Properties of Multiplication 	<ul style="list-style-type: none"> • Bell ringer (p. 28) • Skill Checks (pp. 29, 31) • Exercises • Quiz 1B (Sections 1.4–1.5)
Problem Solving—Introduction				
34–35	<p>1.PS.1 Apply the four-point checklist to solve problems involving the operations of arithmetic.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving 		<ul style="list-style-type: none"> • Exercises
1.6 Exponents				
36–40	<p>1.6.1 Write products with repeated factors in exponential form.</p> <p>1.6.2 Expand exponential expressions.</p> <p>1.6.3 Evaluate exponential expressions.</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Exponents 	<ul style="list-style-type: none"> • Bell ringer (p. 36) • Skill Checks (pp. 37–38) • Exercises
1.7 Properties of Powers				
41–46	<p>1.7.1 Apply product, power, and quotient properties of powers.</p> <p>1.7.2 Interpret an exponent of 0 and negative integral exponents.</p> <p>1.7.3 Simplify exponential expressions with integral powers.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—Invisible Things <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 1C 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Computing—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Properties of Powers 	<ul style="list-style-type: none"> • Bell ringer (p. 41) • Skill Checks (pp. 42–44) • Exercises • Quiz 1C (Sections 1.6–1.7)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
1.8 Roots				
47–52	<p>1.8.1 Evaluate square roots of perfect squares.</p> <p>1.8.2 Evaluate cube roots of perfect cubes.</p> <p>1.8.3 Estimate other square and cube roots by determining the integers a root lies between.</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Roots 	<ul style="list-style-type: none"> • Bell ringer (p. 47) • Skill Checks (pp. 48, 50–51) • Exercises
1.9 Order of Operations				
53–57	<p>1.9.1 State the order of operations.</p> <p>1.9.2 Apply the order of operations to evaluate numerical expressions.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Calculator Skills 1 • Math & Scripture—Daniel’s Influence <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 1D 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Order of Operations 	<ul style="list-style-type: none"> • Bell ringer (p. 53) • Skill Checks (pp. 53, 55–56) • Exercises • Quiz 1D (Sections 1.8–1.9)
Application Problems—Temperature Conversion				
58–59	<p>1.AP.1 Use integer operations to solve real-world problems.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Temperature 	<ul style="list-style-type: none"> • Exercises
Chapter 1 Review				
60–63	Review the skills and concepts taught in Chapter 1.	<p>Activities</p> <ul style="list-style-type: none"> • Chapter 1 Review • Cumulative Review 1 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 1 Review
Chapter 1 Test				
	Demonstrate knowledge of concepts from Chapter 1.	<p>Assessment</p> <ul style="list-style-type: none"> • Chapter 1 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • ExamView: Chapter 1 test bank 	<ul style="list-style-type: none"> • Chapter 1 Test

Chapter 2: Expressions

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
2.1 Evaluating Expressions				
65–70	<p>2.1.1 Evaluate algebraic expressions, given the value of each variable.</p> <p>2.1.2 Identify the terms, coefficients, and the constant term in an algebraic expression.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Calculator Skills 2 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Evaluating Expressions 	<ul style="list-style-type: none"> • Bell ringer (p. 65) • Skill Checks (pp. 66, 68) • Exercises
2.2 The Distributive Property				
71–76	<p>2.2.1 Apply the Distributive Property to write equivalent expressions.</p> <p>2.2.2 Model a real-world situation with the Distributive Property.</p> <p style="text-align: center;"><u>BWS</u> Design: Fall and Redemption (formulate)</p>	<p>Activity</p> <ul style="list-style-type: none"> • The Distributive Property <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 2A 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Gyroscopes—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Distributive Property 	<ul style="list-style-type: none"> • Bell ringer (p. 71) • Skill Checks (pp. 72–73) • Exercises • Quiz 2A (Sections 2.1–2.2)
Activity: Algebraic Proofs				
		<p>Activity</p> <ul style="list-style-type: none"> • Algebraic Proofs 		<ul style="list-style-type: none"> • Exercises
2.3 Simplifying Expressions				
77–80	<p>2.3.1 Simplify algebraic expressions by using the Commutative and Associative Properties.</p> <p>2.3.2 Simplify algebraic expressions by using the Distributive Property to combine like terms.</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Simplifying Expressions 	<ul style="list-style-type: none"> • Bell ringer (p. 77) • Skill Checks (pp. 77, 79) • Exercises
2.4 Translating Word Phrases				
81–85	<p>2.4.1 Translate a word phrase into a numerical expression.</p> <p>2.4.2 Translate a word phrase into an algebraic expression.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 2B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Translating Word Phrases 	<ul style="list-style-type: none"> • Bell ringer (p. 81) • Skill Checks (pp. 82–83) • Exercises • Quiz 2B (Sections 2.3–2.4)
Problem Solving—Select the Right Operations				
86–87	<p>2.PS.1 Apply the strategy of selecting the operations to solve problems.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Select the Right Operations 		<ul style="list-style-type: none"> • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
2.5 Scientific Notation				
88–94	<p>2.5.1 Convert numbers from standard form to scientific notation.</p> <p>2.5.2 Convert numbers from scientific notation to standard form.</p> <p>2.5.3 Determine the number of significant digits in a measurement.</p> <p>2.5.4 Explain the purpose of scientific notation.</p> <p><u>BWS</u> Design: Fall and Redemption (explain)</p>	<p>Activities</p> <ul style="list-style-type: none"> Scientific Notation Creation Wonders—Revelation of the Stars <p>Assessment</p> <ul style="list-style-type: none"> Quiz 2C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Scientific Notation 	<ul style="list-style-type: none"> Bell ringer (p. 89) Skill Checks (pp. 89–90, 92) Exercises
2.6 Estimating				
95–101	<p>2.6.1 Round a number to an indicated place value.</p> <p>2.6.2 Estimate a sum or a difference.</p> <p>2.6.3 Estimate a product or a quotient.</p>	<p>Activities</p> <ul style="list-style-type: none"> Left-to-Right Mental Arithmetic Math & Scripture—Joseph’s On-the-Job Training <p>Assessment</p> <ul style="list-style-type: none"> Quiz 2C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Estimating 	<ul style="list-style-type: none"> Bell ringer (p. 95) Skill Checks (pp. 96–98) Exercises Quiz 2C (Sections 2.5–2.6)
Application Problems—Calculating Fitness				
102–3	<p>2.AP.1 Calculate values related to physical fitness.</p> <p>2.AP.2 Relate physical fitness to the command of exercising dominion.</p> <p><u>BWS</u> Design: Fall and Redemption (explain)</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Fitness 	<ul style="list-style-type: none"> Exercises
Chapter 2 Review				
104–6	Review the skills and concepts taught in Chapter 2.	<p>Activities</p> <ul style="list-style-type: none"> Chapter 2 Review Cumulative Review 2 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Game: Mathardy 	<ul style="list-style-type: none"> Chapter 2 Review
Chapter 2 Test				
	Demonstrate knowledge of concepts from Chapter 2.	<p>Assessment</p> <ul style="list-style-type: none"> Chapter 2 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> ExamView: Chapter 2 test bank 	<ul style="list-style-type: none"> Chapter 2 Test
STEM Project—Potato Power				
107	Build an electrical circuit by using science, technology, engineering, and math.	<p>Activity</p> <ul style="list-style-type: none"> STEM—Potato Power 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Potato Power 	<ul style="list-style-type: none"> Potato Power Project Rubric

Chapter 3: Equations and Inequalities

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
3.1 Solving Equations by Adding or Subtracting				
109–15	3.1.1 Solve equations by adding or subtracting. 3.1.2 Solve real-world problems by using addition or subtraction equations.	Activity <ul style="list-style-type: none"> Creation Wonders—Earth 	AfterSchoolHelp.com <ul style="list-style-type: none"> Solving Equations with Addition and Subtraction 	<ul style="list-style-type: none"> Bell ringer (p. 109) Skill Checks (pp. 110, 112–13) Exercises
3.2 Solving Equations by Multiplying or Dividing				
116–21	3.2.1 Solve equations by multiplying or dividing. 3.2.2 Solve real-world problems by using multiplication or division equations.		AfterSchoolHelp.com <ul style="list-style-type: none"> Solving Equations with Multiplication and Division 	<ul style="list-style-type: none"> Bell ringer (p. 116) Skill Checks (pp. 117, 119) Exercises
Activity: Magic Squares				
		Activity <ul style="list-style-type: none"> Magic Squares 		<ul style="list-style-type: none"> Exercises
3.3 Solving Two-Step Equations				
122–27	3.3.1 Solve two-step equations. 3.3.2 Solve real-world problems by using two-step equations.	Activity <ul style="list-style-type: none"> Equations: Working Backward Assessment <ul style="list-style-type: none"> Quiz 3A 	AfterSchoolHelp.com <ul style="list-style-type: none"> Solving Two-Step Equations 	<ul style="list-style-type: none"> Bell ringer (p. 122) Skill Checks (pp. 123–24) Exercises Quiz 3A (Sections 3.1–3.3)
Problem Solving—Guess and Check				
128–29	3.PS.1 Apply the strategy of guess and check to solve problems.	Activity <ul style="list-style-type: none"> Problem Solving—Guess and Check 		<ul style="list-style-type: none"> Exercises
3.4 Simplifying before Solving				
130–36	3.4.1 Solve equations that have like terms. 3.4.2 Solve equations that have parentheses.	Activity <ul style="list-style-type: none"> Simplify before Solving 	AfterSchoolHelp.com <ul style="list-style-type: none"> Simplifying before Solving 	<ul style="list-style-type: none"> Bell ringer (p. 130) Skill Checks (pp. 131, 134) Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
3.5 Using Equations				
137–44	<p>3.5.1 Translate real-world problems into equations.</p> <p>3.5.2 Solve equations related to real-world problems.</p> <p>3.5.3 Interpret the solution to an equation related to a real-world problem.</p> <p>3.5.4 Explain why we are able to use equations to effectively model real-world relationships.</p> <p><u>BWS</u> Knowledge: Creation (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Calculator Skills 3 <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 3B 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Radar Imaging—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Using Equations 	<ul style="list-style-type: none"> • Bell ringer (p. 137) • Skill Checks (pp. 139–40) • Exercises • Quiz 3B (Sections 3.4–3.5)
3.6 Solving Inequalities				
145–51	<p>3.6.1 Determine whether a given number is a solution to an inequality.</p> <p>3.6.2 Graph an inequality on a number line.</p> <p>3.6.3 Solve simple inequalities algebraically.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Solving One- and Two-Step Inequalities 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Solving Linear Inequalities 	<ul style="list-style-type: none"> • Bell ringer (p. 145) • Skill Checks (pp. 146, 148–49) • Exercises
3.7 Using Inequalities				
152–57	<p>3.7.1 Explain how modeling real-world relationships with inequalities imitates God’s work.</p> <p><u>BWS</u> Knowledge: Creation (explain)</p> <p>3.7.2 Translate real-world problems related to unequal quantities into inequalities.</p> <p>3.7.3 Solve simple inequalities related to real-world problems.</p> <p>3.7.4 Interpret the solution to an inequality related to a real-world problem.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Math & Scripture—King David’s Unwise Census <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 3C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Using Inequalities 	<ul style="list-style-type: none"> • Bell ringer (p. 152) • Skill Checks (pp. 153, 155) • Exercises • Quiz 3C (Sections 3.6–3.7)
Application Problems—Managing Pollutants				
158–59	<p>3.AP.1 Calculate values related to pollution management.</p> <p>3.AP.2 Relate pollution management to the biblical principle of exercising dominion.</p> <p><u>BWS</u> Knowledge: Creation (explain)</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Environmental Engineering 	<ul style="list-style-type: none"> • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Chapter 3 Review				
160–63	Review the skills and concepts taught in Chapter 3.	Activities <ul style="list-style-type: none"> • Chapter 3 Review • Cumulative Review 3 	Teacher Tools Online <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 3 Review
Chapter 3 Test				
	Demonstrate knowledge of concepts from Chapter 3.	Assessment <ul style="list-style-type: none"> • Chapter 3 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 3 test bank 	<ul style="list-style-type: none"> • Chapter 3 Test
First Quarter Review and Exam (3 days)				
	Review and demonstrate knowledge of concepts from Chapters 1–3.	Assessment <ul style="list-style-type: none"> • Exam 1 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapters 1–3 test banks 	<ul style="list-style-type: none"> • Exam 1

Chapter 4: Rational Expressions

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
4.1 Prime Factorization				
165–71	<p>4.1.1 State the factors of a natural number.</p> <p>4.1.2 Classify a natural number as prime, composite, or neither.</p> <p>4.1.3 Determine the prime factorization of a natural number.</p> <p>4.1.4 Explain why someone might think mathematics is objective truth.</p> <p style="text-align: center;">BWS Knowledge: Fall and Redemption (evaluate)</p>	<p>Activities</p> <ul style="list-style-type: none"> • Creation Wonders—The Flood • Prime and Composite Numbers • Perfect, Deficient, and Abundant Numbers 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Prime Factorization 	<ul style="list-style-type: none"> • Bell ringer (p. 165) • Skill Checks (pp. 166–67, 169) • Exercises
4.2 Greatest Common Factor				
172–76	<p>4.2.1 Determine the greatest common factor of several natural numbers.</p> <p>4.2.2 State whether 2 numbers or expressions are relatively prime.</p> <p>4.2.3 Determine the greatest common factor of several simple algebraic expressions.</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Greatest Common Factor 	<ul style="list-style-type: none"> • Bell ringer (p. 172) • Skill Checks (pp. 172–73, 175) • Exercises
4.3 Least Common Multiple				
177–81	<p>4.3.1 Determine the least common multiple of several natural numbers.</p> <p>4.3.2 Determine the least common multiple of several algebraic expressions.</p>	<p>Activity</p> <ul style="list-style-type: none"> • GCF and LCM <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 4A 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: GCF and LCM <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Least Common Multiple 	<ul style="list-style-type: none"> • Bell ringer (p. 177) • Skill Checks (pp. 178–79) • Exercises • Quiz 4A (Sections 4.1–4.3)
Problem Solving—Look for a Pattern				
182–83	<p>4.PS.1 Use patterns to find a solution.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Patterns 		<ul style="list-style-type: none"> • Exercises
Activity: Pascal’s Triangle				
		<p>Activity</p> <ul style="list-style-type: none"> • Pascal’s Triangle 		<ul style="list-style-type: none"> • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
4.4 Rational Numbers				
184–90	<p>4.4.1 Identify equivalent fractions.</p> <p>4.4.2 Reduce fractions to lowest terms.</p> <p>4.4.3 Convert between improper fractions and mixed numbers.</p> <p>4.4.4 Compare fractions with different denominators.</p>	<p>Activities</p> <ul style="list-style-type: none"> Rational Number Forms Math & Scripture—Daniel’s Seventy Weeks 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Rational Numbers 	<ul style="list-style-type: none"> Bell ringer (p. 184) Skill Checks (pp. 185–87, 189) Exercises
4.5 Decimal Equivalents				
191–97	<p>4.5.1 Convert between equivalent fractional and decimal forms of a rational number.</p> <p>4.5.2 Order a set of rational numbers containing terminating and repeating decimals.</p>	<p>Activity</p> <ul style="list-style-type: none"> Patterns with Fractions <p>Assessment</p> <ul style="list-style-type: none"> Quiz 4B 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Sorting Mail—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Converting Decimals to Fractions 	<ul style="list-style-type: none"> Bell ringer (p. 191) Skill Checks (pp. 192, 194–95) Exercises Quiz 4B (Sections 4.4–4.5)
4.6 Ratios and Proportions				
198–203	<p>4.6.1 Compare quantities by using ratios and rates.</p> <p>4.6.2 Solve proportions.</p> <p>4.6.3 Apply proportions to solve real-world problems.</p>	<p>Activity</p> <ul style="list-style-type: none"> Solving Problems with Proportions 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Ratios and Proportions 	<ul style="list-style-type: none"> Bell ringer (p. 198) Skill Checks (pp. 199–200) Exercises
4.7 The Real Number System				
204–9	<p>4.7.1 Model the relationships between major subsets of the real numbers with a Venn diagram.</p> <p>4.7.2 Classify real numbers as natural, whole, integer, rational, or irrational.</p> <p>4.7.3 Identify the properties of addition and multiplication when applied to various real numbers.</p> <p>4.7.4 Explain how our classifications of the real number system demonstrate elements of both God’s creation and people’s creative work.</p> <p><u>BWS</u> Knowledge: Fall and Redemption (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> Calculator Skills 4 <p>Assessment</p> <ul style="list-style-type: none"> Quiz 4C 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Art: Venn diagram of the sets of numbers <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Real Numbers 	<ul style="list-style-type: none"> Bell ringer (p. 204) Skill Checks (pp. 206–7) Exercises Quiz 4C (Sections 4.6–4.7)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Application Problems—Coding Information				
210–12	4.AP.1 Calculate modulo values. 4.AP.2 Use modular arithmetic to encrypt and decrypt.		Teacher Tools Online <ul style="list-style-type: none"> • Video: Cryptography 	<ul style="list-style-type: none"> • Exercises
Chapter 4 Review				
213–15	Review the skills and concepts taught in Chapter 4.	Activities <ul style="list-style-type: none"> • Chapter 4 Review • Cumulative Review 4 	Teacher Tools Online <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 4 Review
Chapter 4 Test				
	Demonstrate knowledge of concepts from Chapter 4.	Assessment <ul style="list-style-type: none"> • Chapter 4 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 4 test bank 	<ul style="list-style-type: none"> • Chapter 4 Test

Chapter 5: Operations with Rational Numbers

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
5.1 Sums and Differences				
217–22	<p>5.1.1 Evaluate sums and differences of like and unlike fractions.</p> <p>5.1.2 Evaluate sums and differences of mixed numbers.</p> <p>5.1.3 Evaluate sums and differences of decimals.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Creation Wonders—Trees • Addition and Subtraction of Rational Numbers • Pascal’s Triangle and Fractions 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Adding and Subtracting Rational Numbers 	<ul style="list-style-type: none"> • Bell ringer (p. 217) • Skill Checks (pp. 218–19, 221) • Exercises
5.2 Products and Powers				
223–27	<p>5.2.1 Multiply fractions, mixed numbers, and integers.</p> <p>5.2.2 Multiply decimals.</p> <p>5.2.3 Evaluate powers of rational numbers.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Multiplication of Fractions 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Multiplying Rational Numbers 	<ul style="list-style-type: none"> • Bell ringer (p. 223) • Skill Checks (pp. 224–26) • Exercises
5.3 Quotients and Roots				
228–33	<p>5.3.1 Divide fractions, mixed numbers, and integers.</p> <p>5.3.2 Divide decimals by an integer or a decimal.</p> <p>5.3.3 Evaluate rational roots.</p> <p>5.3.4 Estimate irrational square and cube roots to the nearest tenth.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 5A 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Dividing Rational Numbers 	<ul style="list-style-type: none"> • Bell ringer (p. 228) • Skill Checks (pp. 229–31) • Exercises • Quiz 5A (Sections 5.1–5.3)
Activity: Multiplication and Division of Rational Numbers				
		<p>Activity</p> <ul style="list-style-type: none"> • Multiplication and Division of Rational Numbers 		<ul style="list-style-type: none"> • Exercises
Problem Solving—Draw a Picture				
234–35	<p>5.PS.1 Use a diagram as an aid to solving a problem.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Draw a Picture 		<ul style="list-style-type: none"> • Exercises
5.4 Evaluating Algebraic Expressions				
236–41	<p>5.4.1 Evaluate algebraic expressions with rational values for the variables.</p> <p>5.4.2 Explain how algebraic expressions help us model the real world.</p> <p style="text-align: center;"><u>BWS</u> Reasoning: Creation (explain)</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Evaluating Algebraic Expressions 	<ul style="list-style-type: none"> • Bell ringer (p. 236) • Skill Checks (pp. 237, 239) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
5.5 Simplifying Algebraic Expressions (2 days)				
242–47	<p>5.5.1 Simplify algebraic expressions with rational coefficients.</p>	<p>Assessment</p> <ul style="list-style-type: none"> Quiz 5B 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Simplifying Expressions Video: Bicycles—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Simplifying Algebraic Expressions 	<ul style="list-style-type: none"> Bell ringer (p. 242) Skill Checks (pp. 243, 245) Exercises Quiz 5B (Sections 5.4–5.5)
5.6 Solving Equations with Rational Numbers				
248–53	<p>5.6.1 Solve equations containing rational numbers.</p> <p>5.6.2 Explain why we want to model the real world.</p> <p>BWS Reasoning: Creation (explain)</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Solving Equations with Rational Numbers 	<ul style="list-style-type: none"> Bell ringer (p. 248) Skill Checks (pp. 249–50) Exercises
5.7 Using Equations to Solve Problems (2 days)				
254–59	<p>5.7.1 Translate the statement of a real-world problem into an equation.</p> <p>5.7.2 Solve equations related to real-world problems involving rational numbers.</p> <p>5.7.3 Interpret the solution to an equation related to a real-world problem.</p> <p>5.7.4 Explain why mathematical models are so effective.</p> <p>BWS Reasoning: Creation (explain)</p>		<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Using Equations 	<ul style="list-style-type: none"> Bell ringer (p. 254) Skill Checks (pp. 255, 257) Exercises
5.8 Operations with Scientific Notation				
260–65	<p>5.8.1 Evaluate products and quotients of numbers in scientific notation.</p> <p>5.8.2 Evaluate sums and differences of numbers in scientific notation.</p> <p>5.8.3 Apply operations in scientific notation to solve real-world problems.</p>	<p>Activities</p> <ul style="list-style-type: none"> Calculator Skills 5 Math & Scripture—The Wilderness Tabernacle <p>Assessment</p> <ul style="list-style-type: none"> Quiz 5C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Operations with Scientific Notation 	<ul style="list-style-type: none"> Bell ringer (p. 260) Skill Checks (pp. 261–63) Exercises Quiz 5C (Sections 5.6–5.8)
Application Problems—Tour de Ratio				
266–67	<p>5.AP.1 Calculate gear ratios and apply the ratios to real-life applications.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Racing Bikes 	<ul style="list-style-type: none"> Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Chapter 5 Review				
268–70	Review the skills and concepts taught in Chapter 5.	Activities <ul style="list-style-type: none"> • Chapter 5 Review • Cumulative Review 5 	Teacher Tools Online <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 5 Review
Chapter 5 Test				
	Demonstrate knowledge of concepts from Chapter 5.	Assessment <ul style="list-style-type: none"> • Chapter 5 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 5 test bank 	<ul style="list-style-type: none"> • Chapter 5 Test
STEM Project—Building a Radio Receiver				
271	Build an AM radio receiver by using science, technology, engineering, and math.	Activity <ul style="list-style-type: none"> • STEM—Building a Radio Receiver 	Teacher Tools Online <ul style="list-style-type: none"> • Video: Building a Radio Receiver 	<ul style="list-style-type: none"> • Building a Radio Receiver Project Rubric

Chapter 6: Percents

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
6.1 Forms of Percents				
273–78	6.1.1 Convert between equivalent percents, decimals, and fractions.	Activities <ul style="list-style-type: none"> • Creation Wonders—The Human Cell • Visualizing Percent 	AfterSchoolHelp.com <ul style="list-style-type: none"> • Forms of Percents 	<ul style="list-style-type: none"> • Bell ringer (p. 273) • Skill Checks (pp. 274–75, 277) • Exercises
6.2 Solving Percent Equations				
279–85	6.2.1 Solve percent problems using the percent formula. 6.2.2 Solve percent problems using a proportion.		AfterSchoolHelp.com <ul style="list-style-type: none"> • Solving Percent Equations 	<ul style="list-style-type: none"> • Bell ringer (p. 279) • Skill Checks (pp. 280–83) • Exercises
Activity: Solving Percent Equations				
		Activity <ul style="list-style-type: none"> • Solving Percent Equations 		<ul style="list-style-type: none"> • Exercises
6.3 Using Percents				
286–93	6.3.1 Solve real-world problems involving percents. 6.3.2 Explain how an accurate claim involving percents can be misleading. <u>BWS Reasoning: Fall and Redemption</u> (explain)	Assessment <ul style="list-style-type: none"> • Quiz 6A 	AfterSchoolHelp.com <ul style="list-style-type: none"> • Using Percents 	<ul style="list-style-type: none"> • Bell ringer (p. 286) • Skill Checks (pp. 287, 289) • Exercises • Quiz 6A (Sections 6.1–6.3)
Problem Solving—Divide and Conquer				
294–95	6.PS.1 Use the “divide and conquer” strategy to solve real-world problems.	Activity <ul style="list-style-type: none"> • Problem Solving—Divide and Conquer 		<ul style="list-style-type: none"> • Exercises
6.4 Discount and Markup				
296–302	6.4.1 Find the original retail price, discount, discount rate, or sale price of items on sale. 6.4.2 Find the cost, markup, markup rate, or retail price for items marked up for resale. 6.4.3 Explain how a sales advertisement can use accurate percent statements in a misleading way. <u>BWS Reasoning: Fall and Redemption</u> (explain)		AfterSchoolHelp.com <ul style="list-style-type: none"> • Discount and Markup 	<ul style="list-style-type: none"> • Bell ringer (p. 296) • Skill Checks (pp. 297, 299) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
6.5 Tips and Commission				
303–8	<p>6.5.1 Determine an appropriate tip or percent of the bill.</p> <p>6.5.2 Find the commission rate, earnings, or sales amount.</p> <p>6.5.3 Explain the importance of calculating tips and commission-based earnings.</p> <p>BWS Reasoning: Fall and Redemption (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> Graduated Commission <p>Assessment</p> <ul style="list-style-type: none"> Quiz 6B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Tips and Commission 	<ul style="list-style-type: none"> Bell ringer (p. 303) Skill Checks (pp. 304–5) Exercises Quiz 6B (Sections 6.4–6.5)
6.6 Interest				
309–16	<p>6.6.1 Calculate the interest earned and final balance for simple interest problems.</p> <p>6.6.2 Calculate the final balance and interest earned for compound interest problems.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Copy Machines—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Interest 	<ul style="list-style-type: none"> Bell ringer (p. 309) Skill Checks (pp. 310, 312) Exercises
Activity: Calculator Skills 6				
		<p>Activity</p> <ul style="list-style-type: none"> Calculator Skills 6 		<ul style="list-style-type: none"> Exercises
6.7 Percent Change				
317–21	<p>6.7.1 Find the new amount when given an original amount and the percent change.</p> <p>6.7.2 Find the percent change when given the original amount and the amount of change.</p>	<p>Activity</p> <ul style="list-style-type: none"> Using Percents 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Percent Change 	<ul style="list-style-type: none"> Bell ringer (p. 317) Skill Checks (pp. 318–19) Exercises
6.8 Scales				
322–27	<p>6.8.1 Find actual and modeled lengths.</p> <p>6.8.2 Find the scale of models, given actual and modeled lengths.</p> <p>6.8.3 Perform calculations related to enlargements and reductions.</p>	<p>Activities</p> <ul style="list-style-type: none"> Scale Drawings Math & Scripture—Solomon’s Temple <p>Assessment</p> <ul style="list-style-type: none"> Quiz 6C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Scales 	<ul style="list-style-type: none"> Bell ringer (p. 322) Skill Checks (pp. 323, 325) Exercises Quiz 6C (Sections 6.6–6.8)
Application Problems—Profit or Loss?				
328–29	<p>6.AP.1 Apply the skills and concepts taught in Chapter 6 in business-related scenarios.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Entrepreneurship 	<ul style="list-style-type: none"> Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Chapter 6 Review				
330–33	Review the skills and concepts taught in Chapter 6.	Activities <ul style="list-style-type: none"> • Chapter 6 Review • Cumulative Review 6 	Teacher Tools Online <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 6 Review
Chapter 6 Test				
	Demonstrate knowledge of concepts from Chapter 6.	Assessment <ul style="list-style-type: none"> • Chapter 6 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 6 test bank 	<ul style="list-style-type: none"> • Chapter 6 Test
Second Quarter Review and Exam (3 days)				
	Review and demonstrate knowledge of concepts from Chapters 4–6.	Assessment <ul style="list-style-type: none"> • Exam 2 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapters 4–6 test banks 	<ul style="list-style-type: none"> • Exam 2

Chapter 7: Applying Equations and Inequalities

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
7.1 Variables on Both Sides				
335–39	<p>7.1.1 Solve equations with the variable on both sides of the equation.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Creation Wonders—The Human Heart • Solving Equations with Variables on Both Sides 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Variables on Both Sides 	<ul style="list-style-type: none"> • Bell ringer (p. 335) • Skill Checks (pp. 336, 338) • Exercises
7.2 Identities and Contradictions				
340–43	<p>7.2.1 Identify linear equations that have one solution as conditional equations.</p> <p>7.2.2 Identify linear equations that have an infinite number of solutions as identities.</p> <p>7.2.3 Identify linear equations that have no solution as contradictions.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Equations, Identities, and Contradictions • Calculator Skills 7 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Identities and Contradictions 	<ul style="list-style-type: none"> • Bell ringer (p. 340) • Skill Checks (pp. 340–42) • Exercises
Problem Solving—Write and Solve an Equation				
344–46	<p>7.PS.1 Use the problem-solving strategy of writing an equation to solve a word problem.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Equations and Inequalities 		<ul style="list-style-type: none"> • Exercises
7.3 Applying Equations				
347–54	<p>7.3.1 Solve more advanced word problems by writing and solving an equation.</p> <p>7.3.2 Solve problems involving consecutive integers.</p> <p>7.3.3 Solve more advanced problems related to distance, rate, and time.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 7A 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Recording Sound—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Applying Equations 	<ul style="list-style-type: none"> • Bell ringer (p. 347) • Skill Checks (pp. 348–50) • Exercises • Quiz 7A (Sections 7.1–7.3)
7.4 Solving Inequalities				
355–59	<p>7.4.1 Solve inequalities with parentheses and variables on both sides.</p> <p>7.4.2 Graph solutions to inequalities on a number line.</p>	<p>Materials</p> <ul style="list-style-type: none"> • number line paper • number line for display (Use internet keyword search <i>printable number line.</i>) 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Solving Inequalities <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Solving Inequalities 	<ul style="list-style-type: none"> • Bell ringer (p. 355) • Skill Checks (pp. 356, 358) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
7.5 Applying Inequalities				
360–65	<p>7.5.1 Solve real-world problems by writing and solving inequalities.</p> <p>7.5.2 Apply the Trichotomy Property to real-world problems.</p>	<p>Assessment</p> <ul style="list-style-type: none"> Quiz 7B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Applying Inequalities 	<ul style="list-style-type: none"> Bell ringer (p. 360) Skill Checks (pp. 361, 363) Exercises Quiz 7B (Sections 7.4–7.5)
Application Problems—Mathematical Models in Meteorology				
366–67	<p>7.AP.1 Solve problems using formulas related to relative humidity and apparent temperatures.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Meteorology 	<ul style="list-style-type: none"> Exercises
7.6 Equations with Powers				
368–72	<p>7.6.1 Solve equations containing a variable that is squared.</p> <p>7.6.2 Solve equations containing a variable that is cubed.</p>	<p>Activity</p> <ul style="list-style-type: none"> Solving Equations with Powers 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Equations with Powers 	<ul style="list-style-type: none"> Bell ringer (p. 368) Skill Checks (pp. 368–70) Exercises
7.7 Radical Equations (Extended)				
373–77	<p>7.7.1 Solve radical equations with square roots.</p> <p>7.7.2 Solve radical equations with cube roots.</p>	<p>Activity</p> <ul style="list-style-type: none"> Math & Scripture—Ezekiel’s Temple Vision <p>Assessment</p> <ul style="list-style-type: none"> Quiz 7C 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Radical Equations 	<ul style="list-style-type: none"> Bell ringer (p. 373) Skill Checks (pp. 374, 376) Exercises Quiz 7C (Sections 7.6–7.7)
Activity: Solving Equations with Radicals (Extended)				
		<p>Activity</p> <ul style="list-style-type: none"> Solving Equations with Radicals 		<ul style="list-style-type: none"> Exercises
Application Activity—Recognizing God’s Design (2 days)				
378	<p>7.AA.1 Create a work of art that demonstrates thankfulness, praise, and reverence toward God by applying an understanding of mathematics.</p>	<ul style="list-style-type: none"> Application Activity Rubric 		<ul style="list-style-type: none"> Project
Chapter 7 Review				
379–81	Review the skills and concepts taught in Chapter 7.	<p>Activities</p> <ul style="list-style-type: none"> Chapter 7 Review Cumulative Review 7 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Game: Mathardy 	<ul style="list-style-type: none"> Chapter 7 Review

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Chapter 7 Test				
	Demonstrate knowledge of concepts from Chapter 7.	Assessment <ul style="list-style-type: none"> • Chapter 7 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 7 test bank 	<ul style="list-style-type: none"> • Chapter 7 Test

Chapter 8: Relations and Functions

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
8.1 Illustrating Relations				
383–88	<p>8.1.1 Identify a relation and its domain and range.</p> <p>8.1.2 Represent relations as a set of ordered pairs, a mapping diagram, a table of values, a graph, or an equation.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—The Human Eye <p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Illustrating Relations 	<ul style="list-style-type: none"> • Bell ringer (p. 383) • Skill Checks (pp. 385–86) • Exercises
8.2 Functions				
389–95	<p>8.2.1 Determine whether a relation is a function.</p> <p>8.2.2 Graph linear and simple nonlinear functions.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 8A <p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Functions 	<ul style="list-style-type: none"> • Bell ringer (p. 389) • Skill Checks (pp. 391, 393) • Exercises • Quiz 8A (Sections 8.1–8.2)
Problem Solving—Make a Table				
396–97	<p>8.PS.1 Solve a real-world problem by using the strategy of making a table.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Make a Table 		<ul style="list-style-type: none"> • Exercises
8.3 Slope				
398–404	<p>8.3.1 Determine the slope of a line.</p> <p>8.3.2 Interpret the slope of a linear function as the rate of change.</p> <p>8.3.3 Explain how the rate of change in real-world models helps us manage God’s creation.</p> <p style="text-align: center;"><u>BWS</u> Modeling: Creation (explain)</p> <p>8.3.4 Use slope to classify functions as linear or nonlinear.</p>	<p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Slope 	<ul style="list-style-type: none"> • Bell ringer (p. 398) • Skill Checks (pp. 399–400, 402) • Exercises
8.4 Graphing Linear Equations (2 days)				
405–10	<p>8.4.1 Graph standard-form linear equations by using the x- and y-intercepts.</p> <p>8.4.2 Graph linear equations by using the slope-intercept form.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Graphing Functions <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 8B <p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Graphing Linear Equations 	<ul style="list-style-type: none"> • Bell ringer (p. 405) • Skill Checks (pp. 407–9) • Exercises • Quiz 8B (Sections 8.3–8.4)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
8.5 Writing Linear Equations (2 days)				
411–20	<p>8.5.1 Determine the slope-intercept form of a linear function from its graph or a table of values.</p> <p>8.5.2 Interpret the initial values and rates of change of different representations of linear functions that model real-world applications.</p> <p>8.5.3 Compare the benefits of using graphs, tables, and equations to model the real world.</p> <p><u>BWS</u> Modeling: Creation (explain)</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 8C 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Writing Linear Equations • Video: Textiles—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Writing Linear Equations 	<ul style="list-style-type: none"> • Bell ringer (p. 411) • Skill Checks (pp. 412–13, 415) • Exercises • Quiz 8C (Section 8.5)
8.6 Proportional Relationships				
421–27	<p>8.6.1 Identify tables, graphs, and equations representing a proportional relationship and the constant of proportionality.</p> <p>8.6.2 Solve problems related to proportional quantities.</p> <p>8.6.3 Compare real-world proportional relationships that are represented differently.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Proportional Relationships 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Proportional Relationships 	<ul style="list-style-type: none"> • Bell ringer (p. 421) • Skill Checks (pp. 423–24) • Exercises
8.7 Graphing Linear Inequalities				
428–31	<p>8.7.1 Graph linear inequalities.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Math & Scripture—Stewardship of Wealth <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 8D <p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Graphing Linear Inequalities <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Graphing Linear Inequalities 	<ul style="list-style-type: none"> • Bell ringer (p. 428) • Skill Checks (pp. 429–30) • Exercises • Quiz 8D (Sections 8.6–8.7)
Activity: Calculator Skills 8				
		<p>Activity</p> <ul style="list-style-type: none"> • Calculator Skills 8 		<ul style="list-style-type: none"> • Exercises
Application Problems—Linear Models				
432–33	<p>8.AP.1 Use linear models to solve real-world problems.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Utilities 	<ul style="list-style-type: none"> • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
Chapter 8 Review				
434–38	Review the skills and concepts taught in Chapter 8.	Activities <ul style="list-style-type: none"> • Chapter 8 Review • Cumulative Review 8 	Teacher Tools Online <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 8 Review
Chapter 8 Test				
	Demonstrate knowledge of concepts from Chapter 8.	Assessment <ul style="list-style-type: none"> • Chapter 8 Test 	Teacher Tools Online <ul style="list-style-type: none"> • ExamView: Chapter 8 test bank 	<ul style="list-style-type: none"> • Chapter 8 Test
STEM Project—Logic and AI				
439	Create logic diagrams.	Activity <ul style="list-style-type: none"> • STEM—Logic and AI 	Teacher Tools Online <ul style="list-style-type: none"> • Video: Logic and AI 	<ul style="list-style-type: none"> • Logic and AI Project Rubric

Chapter 9: Systems of Linear Equations

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
9.1 Solving Systems by Graphing				
441–45	<p>9.1.1 Solve systems of linear equations by graphing.</p> <p>9.1.2 Solve real-world problems by solving a system of linear equations graphically.</p> <p>9.1.3 Describe benefits of solving a system by graphing.</p> <p style="text-align: center;"><u>BWS</u> Modeling: Fall (evaluate)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Solving Systems by Graphing <p>Materials</p> <ul style="list-style-type: none"> • coordinate plane for instruction • coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Solving Systems by Graphing 	<ul style="list-style-type: none"> • Bell ringer (p. 441) • Skill Checks (pp. 442–43) • Exercises
Activity: Creation Wonders—The Human Ear				
		<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—The Human Ear 		<ul style="list-style-type: none"> • Exercises
Problem Solving—Make a Graph				
446–47	<p>9.PS.1 Solve real-world problems by using the strategy of making a graph.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Make a Graph 		<ul style="list-style-type: none"> • Exercises
9.2 Solving Systems by Substitution				
448–53	<p>9.2.1 Solve systems of linear equations by using substitution.</p> <p>9.2.2 Solve real-world problems by using substitution to solve systems of linear equations.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 9A 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Solving Systems by Substitution 	<ul style="list-style-type: none"> • Bell ringer (p. 448) • Skill Checks (pp. 450–51) • Exercises • Quiz 9A (Sections 9.1–9.2)
9.3 Solving Systems by Elimination				
454–61	<p>9.3.1 Solve systems of linear equations by using elimination.</p> <p>9.3.2 Explain why a system of equations can be solved by elimination.</p> <p style="text-align: center;"><u>BWS</u> Modeling: Fall (explain)</p> <p>9.3.3 Solve real-world problems by using elimination to solve a system of linear equations.</p> <p>9.3.4 Identify the more efficient algebraic method of solving a system of linear equations.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Solving Systems Algebraically 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Solving Systems by Elimination • Video: Correcting Vision—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Solving Systems by Elimination 	<ul style="list-style-type: none"> • Bell ringer (p. 454) • Skill Checks (pp. 455, 457–58) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
9.4 Special Cases of Linear Systems				
462–67	<p>9.4.1 Identify systems of linear equations with no solution or infinitely many solutions.</p> <p>9.4.2 Interpret the result of no solution or infinitely many solutions when solving linear systems modeling real-world applications.</p>	<p>Activities</p> <ul style="list-style-type: none"> Special Cases of Linear Systems Math & Scripture—The New Jerusalem Calculator Skills 9 <p>Assessment</p> <ul style="list-style-type: none"> Quiz 9B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Special Cases of Linear Systems 	<ul style="list-style-type: none"> Bell ringer (p. 462) Skill Checks (pp. 464–65) Exercises Quiz 9B (Sections 9.3–9.4)
Application Problems—Digital Storage and Images				
468–70	<p>9.AP.1 Use scientific prefixes, linear equations, and linear systems to solve application problems.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Digital Storage and Images 	<ul style="list-style-type: none"> Exercises
Chapter 9 Review				
471–73	Review the skills and concepts taught in Chapter 9.	<p>Activities</p> <ul style="list-style-type: none"> Chapter 9 Review Cumulative Review 9 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Game: Mathardy 	<ul style="list-style-type: none"> Chapter 9 Review
Chapter 9 Test				
	Demonstrate knowledge of concepts from Chapter 9.	<p>Assessment</p> <ul style="list-style-type: none"> Chapter 9 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> ExamView: Chapter 9 test bank 	<ul style="list-style-type: none"> Chapter 9 Test
Third Quarter Review and Exam (3 days)				
	Review and demonstrate - knowledge of concepts from Chapters 7–9.	<p>Assessment</p> <ul style="list-style-type: none"> Exam 3 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> ExamView: Chapters 7–9 test banks 	<ul style="list-style-type: none"> Exam 3

Chapter 10: Geometry

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
10.1 Angles				
475–84	<p>10.1.1 Classify angles as acute, right, obtuse, or straight.</p> <p>10.1.2 Solve problems related to adjacent, vertical, complementary, and supplementary angles.</p> <p>10.1.3 Apply the relationships of alternate interior, alternate exterior, and corresponding angles when parallel lines are cut by a transversal.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Angles • Geometric Proofs • Figurate Numbers 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Angle Names <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Angles 	<ul style="list-style-type: none"> • Bell ringer (p. 475) • Skill Checks (pp. 477–79, 481) • Exercises
Activity: Creation Wonders—The Human Brain				
		<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—The Human Brain 		<ul style="list-style-type: none"> • Exercises
10.2 Polygons				
485–93	<p>10.2.1 Identify polygons.</p> <p>10.2.2 Classify triangles and quadrilaterals by their sides and angles.</p> <p>10.2.3 Find the sum of the angles in a polygon.</p> <p>10.2.4 Find an unknown angle measure in a polygon.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Calculator Skills 10 <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Robots—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Polygons 	<ul style="list-style-type: none"> • Bell ringer (p. 485) • Skill Checks (pp. 487, 489) • Exercises
10.3 The Pythagorean Theorem				
494–500	<p>10.3.1 Explain the Pythagorean misunderstanding of mathematical modeling.</p> <p style="padding-left: 40px;">BWS Modeling: Redemption (explain)</p> <p>10.3.2 Explain a proof of the Pythagorean Theorem.</p> <p>10.3.3 Use the Pythagorean Theorem to find an unknown side of a right triangle.</p> <p>10.3.4 Use the converse of the Pythagorean Theorem to determine whether a triangle with known side lengths is a right triangle.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 10A <p>Materials</p> <ul style="list-style-type: none"> • student calculators • graph paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • The Pythagorean Theorem 	<ul style="list-style-type: none"> • Bell ringer (p. 494) • Skill Checks (pp. 495–97) • Exercises • Quiz 10A (Sections 10.1–10.3)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
10.4 Coordinate Geometry				
501–5	<p>10.4.1 Derive the distance formula.</p> <p>10.4.2 Determine the distance between 2 points.</p> <p>10.4.3 Find the midpoint of a segment.</p>	<p>Activity</p> <ul style="list-style-type: none"> Distance and Midpoint 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Coordinate Geometry 	<ul style="list-style-type: none"> Bell ringer (p. 501) Skill Checks (pp. 502–3) Exercises
10.5 Congruence and Similarity				
506–11	<p>10.5.1 List corresponding parts of congruent and similar figures.</p> <p>10.5.2 Find unknown side lengths in similar figures.</p>	<p>Activity</p> <ul style="list-style-type: none"> Special Right Triangles Congruence and Similarity <p>Assessment</p> <ul style="list-style-type: none"> Quiz 10B 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Congruence and Similarity 	<ul style="list-style-type: none"> Bell ringer (p. 506) Skill Checks (pp. 507–8) Exercises Quiz 10B (Sections 10.4–10.5)
Problem Solving—Work Backward				
512–13	<p>10.PS.1 Use the problem-solving strategy of working backward.</p>	<p>Activity</p> <ul style="list-style-type: none"> Problem Solving—Work Backward 		<ul style="list-style-type: none"> Exercises
10.6 Translations				
514–20	<p>10.6.1 Translate a figure in the coordinate plane.</p> <p>10.6.2 Find the coordinates of points after a translation.</p> <p>10.6.3 Describe the effect of translation on congruence.</p>	<p>Materials</p> <ul style="list-style-type: none"> coordinate plane for instruction coordinate plane graphing paper 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Translations <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Translations 	<ul style="list-style-type: none"> Bell ringer (p. 514) Skill Checks (pp. 515, 517) Exercises
10.7 Reflections				
521–29	<p>10.7.1 Reflect a figure across the axes of the coordinate plane.</p> <p>10.7.2 Find the coordinates of points after a reflection.</p> <p>10.7.3 Describe the effect of reflection on congruence.</p> <p>10.7.4 Complete a sequence of rigid transformations.</p>	<p>Activity</p> <ul style="list-style-type: none"> Translations and Reflections <p>Assessment</p> <ul style="list-style-type: none"> Quiz 10C <p>Materials</p> <ul style="list-style-type: none"> coordinate plane for instruction coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Reflections 	<ul style="list-style-type: none"> Bell ringer (p. 521) Skill Checks (pp. 522, 525) Exercises Quiz 10C (Sections 10.6–10.7)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
10.8 Rotations (2 days)				
530–37	<p>10.8.1 Rotate a figure around the origin of the coordinate plane.</p> <p>10.8.2 Find the coordinates of points after a rotation.</p> <p>10.8.3 Describe the effect of rotation on congruence.</p> <p>10.8.4 Describe a sequence of rigid transformations that maps a figure to a congruent figure.</p>	<p>Materials</p> <ul style="list-style-type: none"> coordinate plane for instruction coordinate plane graphing paper 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Rotations 	<ul style="list-style-type: none"> Bell ringer (p. 530) Skill Checks (pp. 532–33) Exercises
10.9 Dilations (2 days)				
538–46	<p>10.9.1 Find the scale factor of a dilation.</p> <p>10.9.2 Describe the effect of a dilation on similarity.</p> <p>10.9.3 Dilate a figure in the coordinate plane with respect to the origin.</p> <p>10.9.4 Describe a series of similarity transformations between 2 figures.</p> <p>10.9.5 Defend the proposition that even very good mathematical models are limited.</p> <p>BWS Modeling: Redemption (formulate)</p>	<p>Activities</p> <ul style="list-style-type: none"> Rotations and Dilations Math & Scripture—Building the Walls and Gates <p>Assessment</p> <ul style="list-style-type: none"> Quiz 10D <p>Materials</p> <ul style="list-style-type: none"> coordinate plane for instruction coordinate plane graphing paper 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Dilations <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> Dilations 	<ul style="list-style-type: none"> Bell ringer (p. 538) Skill Checks (pp. 540–42) Exercises Quiz 10D (Sections 10.8–10.9)
Application Problems—Loading Master				
547–49	10.AP.1 Calculate weights and volumes for shipping cargo.		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Video: Shipping 	<ul style="list-style-type: none"> Exercises
Chapter 10 Review				
550–55	Review the skills and concepts taught in Chapter 10.	<p>Activities</p> <ul style="list-style-type: none"> Chapter 10 Review Cumulative Review 10 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> Game: Mathardy 	<ul style="list-style-type: none"> Chapter 10 Review
Chapter 10 Test				
	Demonstrate knowledge of concepts from Chapter 10.	<p>Assessment</p> <ul style="list-style-type: none"> Chapter 10 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> ExamView: Chapter 10 test bank 	<ul style="list-style-type: none"> Chapter 10 Test

Chapter 11: Perimeter, Area, and Volume

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
11.1 Perimeter and Circumference				
557–62	<p>11.1.1 Find the perimeter of a polygon.</p> <p>11.1.2 Find the circumference of a circle when the radius or diameter is known.</p> <p>11.1.3 Find an unknown length in a polygon or circle given the perimeter or circumference and its other dimensions.</p>	<p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Perimeter and Circumference 	<ul style="list-style-type: none"> • Bell ringer (p. 557) • Skill Checks (pp. 558–59) • Exercises
11.2 Area				
563–71	<p>11.2.1 Calculate the area of squares, rectangles, parallelograms, triangles, trapezoids, and circles.</p> <p>11.2.2 Find an unknown dimension when given the area of a figure and its other dimensions.</p> <p>11.2.3 Find the area of composite figures by using sums or differences of areas.</p> <p>11.2.4 Explain how we should apply the biblical teaching of unjust measures.</p> <p style="text-align: center;"><u>BWS</u> Ethics: Creation (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Perimeter and Area <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Area 	<ul style="list-style-type: none"> • Bell ringer (p. 564) • Skill Checks (pp. 566, 568) • Exercises
11.3 Lengths and Areas of Similar Regions				
572–78	<p>11.3.1 Find the perimeter of a polygon given the perimeter of a similar polygon and the measures of a pair of corresponding sides.</p> <p>11.3.2 Find the area of a polygon given the area of a similar polygon and the measures of a pair of corresponding sides.</p> <p>11.3.3 Find unknown lengths in similar polygons by using the ratio of perimeters or areas.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 11A <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Lengths and Areas of Similar Polygons • Video: Printers—then & now <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Lengths and Areas of Similar Regions 	<ul style="list-style-type: none"> • Bell ringer (p. 572) • Skill Checks (pp. 573–74) • Exercises • Quiz 11A (Sections 11.1–11.3)

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
11.4 Surface Areas of Prisms and Cylinders (2 days)				
579–85	<p>11.4.1 Identify attributes of prisms and cylinders.</p> <p>11.4.2 Calculate the lateral and total surface areas of prisms and cylinders by using the appropriate formulas.</p> <p>11.4.3 Determine an unknown dimension of a prism or cylinder given the lateral or total surface area and other dimensions.</p>	<p>Materials</p> <ul style="list-style-type: none"> • student calculators • geometric models of a prism and a circular cylinder 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Surface Areas of Prisms and Cylinders 	<ul style="list-style-type: none"> • Bell ringer (p. 579) • Skill Checks (pp. 581–82) • Exercises
11.5 Surface Areas of Pyramids, Cones, and Spheres				
586–93	<p>11.5.1 Identify attributes of pyramids, cones, and spheres.</p> <p>11.5.2 Calculate the lateral and total surface areas of pyramids, cones, and spheres by using the appropriate formulas.</p> <p>11.5.3 Determine an unknown dimension of a pyramid, cone, or sphere given the lateral or total surface area and other dimensions.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Surface Area • Deltahedra <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 11B <p>Materials</p> <ul style="list-style-type: none"> • student calculators • geometric models of a prism, pyramid, cone, and sphere 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Surface Areas of Pyramids, Cones, and Spheres 	<ul style="list-style-type: none"> • Bell ringer (p. 586) • Skill Checks (pp. 588–90) • Exercises • Quiz 11B (Sections 11.4–11.5)
Activity: Creation Wonders—Human Blood				
		<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—Human Blood 		<ul style="list-style-type: none"> • Exercises
Problem Solving—Organize the Data				
594–96	<p>11.PS.1 Organize data with a table or diagram to solve a real-world problem.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Organize the Data 		<ul style="list-style-type: none"> • Exercises
11.6 Volumes of Prisms and Cylinders				
597–603	<p>11.6.1 Calculate the volume of prisms and circular cylinders.</p> <p>11.6.2 Determine an unknown dimension of a prism or circular cylinder given its volume and other dimensions.</p> <p>11.6.3 Find the volume of composite solids.</p> <p>11.6.4 Explain why ethics should be considered in retail packaging design.</p> <p><u>BWS</u> Ethics: Creation (explain)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Math & Scripture—God’s Wisdom and Noah’s Faithful Work <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Volumes of Prisms and Cylinders 	<ul style="list-style-type: none"> • Bell ringer (p. 597) • Skill Checks (pp. 599–601) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
11.7 Volumes of Pyramids, Cones, and Spheres				
604–10	<p>11.7.1 Calculate the volume of pyramids, cones, and spheres.</p> <p>11.7.2 Determine an unknown dimension of a pyramid, cone, or sphere when given the volume and other dimensions.</p> <p>11.7.3 Find the volume of composite solids.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Calculator Skills 11 • Volumes of 3-Dimensional Figures <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 11C <p>Materials</p> <ul style="list-style-type: none"> • student calculators • various models of cones, cylinders, prisms, pyramids, and spheres 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Volumes of Pyramids, Cones, and Spheres 	<ul style="list-style-type: none"> • Bell ringer (p. 604) • Skill Checks (pp. 605, 607) • Exercises • Quiz 11C (Sections 11.6–11.7)
Application Problems—Geometric Packaging				
611–13	<p>11.AP.1 Use surface area and volume formulas to solve packaging problems.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Area and Volume <p>Materials</p> <ul style="list-style-type: none"> • student calculators • empty cereal or similar boxes 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Packaging 	<ul style="list-style-type: none"> • Exercises
Chapter 11 Review				
614–18	Review the skills and concepts taught in Chapter 11.	<p>Activities</p> <ul style="list-style-type: none"> • Chapter 11 Review • Cumulative Review 11 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 11 Review
Chapter 11 Test				
	Demonstrate knowledge of concepts from Chapter 11.	<p>Assessment</p> <ul style="list-style-type: none"> • Chapter 11 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • ExamView: Chapter 11 test bank 	<ul style="list-style-type: none"> • Chapter 11 Test
STEM Project—Binary Adder				
619	Design and build a binary adder circuit by using science, technology, engineering, and math.	<p>Activity</p> <ul style="list-style-type: none"> • STEM—Binary Adder 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Binary Adder 	<ul style="list-style-type: none"> • Binary Adder Rubric

Chapter 12: Statistics and Probability

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
12.1 Statistical Measures				
621–26	<p>12.1.1 Find the mean, median, and mode of a set of data.</p> <p>12.1.2 Find the range, interquartile range, and mean absolute deviation of a set of data.</p>	<p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Statistical Measures 	<ul style="list-style-type: none"> • Bell ringer (p. 621) • Skill Checks (pp. 622, 625) • Exercises
12.2 Illustrating Data (2 days)				
627–35	<p>12.2.1 Represent univariate data with an appropriate graph.</p> <p>12.2.2 Analyze information illustrated by various graphs representing data sets.</p> <p>12.2.3 Identify misleading representations of data.</p> <p style="text-align: center;"><u>BWS</u> Ethics: Fall and Redemption (evaluate)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Illustrating Data <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 12A <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Illustrating Data 	<ul style="list-style-type: none"> • Bell ringer (p. 627) • Skill Checks (pp. 630, 632) • Exercises • Quiz 12A (Sections 12.1–12.2)
Activity: Creation Wonders—The Senses of Taste and Smell				
		<p>Activity</p> <ul style="list-style-type: none"> • Creation Wonders—The Senses of Taste and Smell 		<ul style="list-style-type: none"> • Exercises
12.3 Frequency Tables and Histograms				
636–43	<p>12.3.1 Summarize a large set of data by using a frequency distribution table or an interval frequency table.</p> <p>12.3.2 Construct a histogram representing the data in an interval frequency table.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Statistical Sampling <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Intro to Frequency Tables, Histograms, and Scatterplots <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Histograms 	<ul style="list-style-type: none"> • Bell ringer (p. 636) • Skill Checks (pp. 637, 639) • Exercises
Problem Solving—Use Multiple Strategies				
644–46	<p>12.PS.1 Use multiple strategies in problem solving.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Problem Solving—Use Multiple Strategies 		<ul style="list-style-type: none"> • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
12.4 Scatterplots				
647–52	<p>12.4.1 Construct a scatterplot illustrating bivariate data.</p> <p>12.4.2 Classify the association of quantities illustrated by a scatterplot as linear or nonlinear and as positive, negative, or neither.</p> <p>12.4.3 Interpret clusters and outliers in a scatterplot.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 12B <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Scatterplots 	<ul style="list-style-type: none"> • Bell ringer (p. 647) • Skill Check (p. 649) • Exercises • Quiz 12B (Sections 12.3–12.4)
12.5 Trend Lines				
653–58	<p>12.5.1 Draw a trend line modeling the data in a scatterplot.</p> <p>12.5.2 Write the equation of a trend line.</p> <p>12.5.3 Interpret the slope and y-intercept of a trend line.</p> <p>12.5.4 Use a trend line to make estimations or predictions.</p>	<p>Activity</p> <ul style="list-style-type: none"> • Scatterplots and Trend Lines <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Trend Lines 	<ul style="list-style-type: none"> • Bell ringer (p. 653) • Skill Check (p. 655)
12.6 Two-Way Frequency Tables (2 days)				
659–66	<p>12.6.1 Make a two-way frequency table.</p> <p>12.6.2 Interpret a two-way frequency table.</p> <p>12.6.3 Use relative frequencies to describe the association between the categories in a two-way frequency table.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Quiz 12C <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Mobile Phones—then & now • Video: Two-Way Frequency Tables • Video: Using Relative Frequencies to Determine Association <p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Two-Way Tables 	<ul style="list-style-type: none"> • Bell ringer (p. 659) • Skill Checks (pp. 661–62) • Exercises • Quiz 12C (Sections 12.5–12.6)
12.7 Probability				
667–73	<p>12.7.1 Calculate theoretical and experimental probabilities of simple events.</p> <p>12.7.2 Calculate the probability of mutually exclusive events.</p> <p>12.7.3 Identify beneficial uses of probability theory.</p> <p>BWS Ethics: Fall and Redemption (formulate)</p>	<p>Activity</p> <ul style="list-style-type: none"> • Numbers That Surprise <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Probability 	<ul style="list-style-type: none"> • Bell ringer (p. 667) • Skill Checks (pp. 668, 670–71) • Exercises

Pages	Objectives	Printed Resources & Materials	Digital Resources	Assessments
12.8 Probabilities of Compound Events				
674–80	<p>12.8.1 Use a tree diagram to list the possible outcomes of an experiment.</p> <p>12.8.2 Apply the Fundamental Counting Principle to find the total number of possible outcomes.</p> <p>12.8.3 Determine the probability of a compound event.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Math & Scripture—Gideon’s Big Task • Calculator Skills 12 • Probability <p>Assessment</p> <ul style="list-style-type: none"> • Quiz 12D <p>Materials</p> <ul style="list-style-type: none"> • student calculators 	<p>AfterSchoolHelp.com</p> <ul style="list-style-type: none"> • Probabilities of Compound Events 	<ul style="list-style-type: none"> • Bell ringer (p. 674) • Skill Checks (pp. 675, 677–78) • Exercises • Quiz 12D (Sections 12.7–12.8)
Application Problems—Using Statistics				
681–82	<p>12.AP.1 Use statistics to help organize data and manage information.</p>		<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Video: Election Polls 	<ul style="list-style-type: none"> • Exercises
Chapter 12 Review (2 days)				
683–88	<p>Review the skills and concepts taught in Chapter 12.</p>	<p>Activities</p> <ul style="list-style-type: none"> • Chapter 12 Review • Cumulative Review 12 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • Game: Mathardy 	<ul style="list-style-type: none"> • Chapter 12 Review
Chapter 12 Test				
	<p>Demonstrate knowledge of concepts from Chapter 12.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Chapter 12 Test 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • ExamView: Chapter 12 test bank 	<ul style="list-style-type: none"> • Chapter 12 Test
Fourth Quarter Review and Exam (3 days)				
	<p>Review and demonstrate knowledge of concepts from Chapters 10–12.</p>	<p>Assessment</p> <ul style="list-style-type: none"> • Exam 4 	<p>Teacher Tools Online</p> <ul style="list-style-type: none"> • ExamView: Chapters 10–12 test banks 	<ul style="list-style-type: none"> • Exam 4