Algebra 1, 4th Edition • Lesson Plan Overview

Chapter 1: Expressions

Pages	Objectives	Resources	Assessments
1.1 Adding & Subtracting Rational Numbers			
4–9	1.1.1 Add rational numbers. 1.1.2 Identify the properties of addition. 1.1.3 Subtract rational numbers by adding the opposite. 1.1.4 Evaluate sums and differences to solve real-world problems. 1.1.5 Explain the unity and diversity of rational numbers. **BWS** Foundations (explain)	**BJU Press Trove*** • Video: Understanding the World • PowerPoint presentation **AfterSchoolHelp.com** • Adding & Subtracting Rational Numbers	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 4)
1.2 Multiplying & Dividing Rational Numbers			
10–17	1.2.1 Multiply rational numbers. 1.2.2 Divide rational numbers by multiplying by the reciprocal. 1.2.3 Identify the properties of multiplication. 1.2.4 Evaluate products and quotients to solve real-world problems.	**Activities** • Operations with Rational Numbers **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying & Dividing Rational Numbers	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 10)
1.3 Exponents & Roots			
18–22	1.3.1 Define *exponent*, *base*, *exponential form*, *square root*, and *cube root*. 1.3.2 Simplify expressions with integral exponents by using the properties of exponents. 1.3.3 Evaluate the square root and cube root of a number.	**Activities** • Exponents & Roots **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Exponents & Roots	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 18) **Assessments** • Quiz 1A (Sections 1.1–1.3)

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Pages	Objectives	Resources	Assessments
1.4 Order of Operations			
23–28	1.4.1 State the order of operations. 1.4.2 Evaluate numerical expressions by using the order of operations. 1.4.3 Translate word phrases into numerical expressions.	**Activities** • Order of Operations • Using Technology—Introduction to the TI-84 Plus **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Order of Operations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 23)
1.5 Variables & Algebraic Expressions			
29–34	1.5.1 Evaluate an algebraic expression with given variable values. 1.5.2 Translate word phrases into algebraic expressions. 1.5.3 Apply formulas to solve real-world problems. 1.5.4 Explain how a biblical view of creation accounts for the effectiveness of mathematics. **BWS** Foundations (explain)	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Variables & Algebraic Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 29)
1.6 Using the Distributive Property			
35–38	1.6.1 Apply the Distributive Property to simplify algebraic expressions.	**Activities** • Algebraic Expressions & Translation **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Using the Distributive Property	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 35) **Assessments** • Quiz 1B (Sections 1.4–1.6)
Application Problems—Energy Costs			
39–40	1.AP.1 Calculate values related to the cost of energy.	**BJU Press Trove** • Video: Energy Costs	**Student Edition** • Exercises

Pages	Objectives	Resources	Assessments
Chapter 1 Review			
41–43	Review the skills and concepts taught in Chapter 1.	**Activities** • Chapter 1 Review • Cumulative Review 1 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 1 Review exercises
Chapter 1 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 1.		**Assessments** • Chapter 1 Test **BJU Press Trove** • ExamView: Chapter 1 test bank

Chapter 2: Solving Equations

Pages	Objectives	Resources	Assessments
2.1 Simple Equations			
46–53	2.1.1 Identify the properties of equality. 2.1.2 Apply the properties of equality to solve one-step equations and two-step equations in the form $ax + b = c$. 2.1.3 Solve real-world problems by writing and solving simple linear equations.	**Activities** • Math History—Al-Khwarizmi • Equations 1 **BJU Press Trove*** • Video: Answering Moral Questions • PowerPoint presentation **AfterSchoolHelp.com** • Simple Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 46)
2.2 Multistep Equations (2 days)			
54–59	2.2.1 Apply mathematical properties to solve multistep equations. 2.2.2 Apply mathematical properties to solve equations with variables on both sides of the equals sign. 2.2.3 Solve real-world problems by writing and solving multistep equations.	**Activities** • Using Technology—Editing • Equations 2 **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multistep Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 54) **Assessments** • Quiz 2A (Sections 2.1–2.2)
2.3 Literal Equations (2 days)			
60–64	2.3.1 Solve literal equations for the indicated variable. 2.3.2 Find an unknown quantity within a real-world context by evaluating a solved literal equation. 2.3.3 Explain what makes a mathematical model useful. **BWS** Modeling (explain)	**Activities** • Literal Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Literal Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 60)
2.4 Ratios & Proportions (2 days)			
65–72	2.4.1 Convert given rates into equivalent rates. 2.4.2 Solve proportions. 2.4.3 Use proportions to solve real-world problems. 2.4.4 Find corresponding lengths and areas of similar figures.	**Activities** • Unit Prices & Best Buys • Scales for Maps & Drawings **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Ratios & Proportions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 65)

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Pages	Objectives	Resources	Assessments
2.5 Percent Equations (2 days)			
73–79	2.5.1 Apply the percent formula to find the part, the percent, or the whole. 2.5.2 Solve real-world problems using the percent formula. 2.5.3 Find the percent change when a quantity increases or decreases.	**Activities** • Ratios, Rates, Proportions & Percents **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Percent Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 73) **Assessments** • Quiz 2B (Sections 2.3–2.5)
2.6 Money Problems (2 days)			
80–87	2.6.1 Apply percent equations to solve real-world problems involving tips, commission, markups, and discounts. 2.6.2 Solve real-world problems involving simple interest. 2.6.3 Explain the limitations of mathematical models in making decisions. **BWS** Modeling (explain) 2.6.4 Compare the benefits and limitations of mathematical models. **BWS** Modeling (evaluate)	**Activities** • Using Technology—Math & Catalog Menus **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Money Problems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 80)
2.7 Motion Problems (2 days)			
88–94	2.7.1 Solve real-world problems about related distances by using $d = rt$.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Motion Problems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 88)
2.8 Mixture Problems (2 days)			
95–102	2.8.1 Solve real-world problems involving mixtures.	**Activities** • Applied Problems **BJU Press Trove** • Video: Mixture Problems • PowerPoint presentation **AfterSchoolHelp.com** • Mixture Problems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 95) **Assessments** • Quiz 2C (Sections 2.6–2.8)

Pages	Objectives	Resources	Assessments
Application Problems—Transportation Costs (2 days)			
103–4	2.AP.1 Calculate values related to the cost of transportation.	**BJU Press Trove** • Video: Transportation Costs	**Student Edition** • Exercises
Chapter 2 Review			
105–9	Review the skills and concepts taught in Chapter 2.	**Activities** • Chapter 2 Review • Cumulative Review 2 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 2 Review exercises
Chapter 2 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 2.		**Assessments** • Chapter 2 Test **BJU Press Trove** • ExamView: Chapter 2 test bank

Chapter 3: Solving Inequalities

Pages	Objectives	Resources	Assessments
3.1 Simple Inequalities			
112–18	3.1.1 Solve simple linear inequalities by applying the properties of inequality. 3.1.2 Interpret negated inequalities by using the Trichotomy Property. 3.1.3 Solve real-world problems by writing and solving simple linear inequalities. 3.1.4 Explain why valid reasoning is important in solving inequalities. **BWS** Reasoning (explain)	**Activities** • Properties of Inequality **BJU Press Trove*** • Video: Valid Reasoning • PowerPoint presentation **AfterSchoolHelp.com** • Simple Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 112)
3.2 Multistep Inequalities			
119–22	3.2.1 Simplify inequalities by applying the Distributive Property. 3.2.2 Solve inequalities containing variables on both sides. 3.2.3 Solve real-world problems by writing and solving multistep inequalities.	**Activities** • Solving Inequalities **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multistep Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 119) **Assessments** • Quiz 3A (Sections 3.1–3.2)
3.3 Conjunctions (2 days)			
123–28	3.3.1 Define a conjunction. 3.3.2 Solve conjunctions. 3.3.3 Write conjunctions that model real-world applications.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Conjunctions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 123)
3.4 Disjunctions			
129–34	3.4.1 Define a disjunction. 3.4.2 Solve disjunctions. 3.4.3 Write disjunctions that model real-world situations.	**Activities** • Compound Inequalities **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Disjunctions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 129) **Assessments** • Quiz 3B (Sections 3.3–3.4)

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Pages	Objectives	Resources	Assessments
3.5 Absolute Value Equations			
135–39	3.5.1 Define an absolute value equation. 3.5.2 Write a disjunction representing an absolute value equation. 3.5.3 Solve absolute value equations.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Absolute Value Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 135)
3.6 Absolute Value Inequalities (2 days)			
140–45	3.6.1 Write a conjunction or disjunction representing an absolute value inequality. 3.6.2 Solve absolute value inequalities. 3.6.3 Solve real-world problems by writing and solving absolute value inequalities. 3.6.4 Evaluate the limitations of deductive reasoning in determining truth. **BWS** Reasoning (evaluate)	**Activities** • Absolute Value Equations & Inequalities • Using Technology—Graphing Inequalities **BJU Press Trove** • Video: Absolute Value Inequalities • PowerPoint presentation **AfterSchoolHelp.com** • Absolute Value Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 140) **Assessments** • Quiz 3C (Sections 3.5–3.6)
Application Problems—Calculating Interest			
146–47	3.AP.1 Calculate values related to interest.	**BJU Press Trove** • Video: Calculating Interest	**Student Edition** • Exercises
Chapter 3 Review			
148–51	Review the skills and concepts taught in Chapter 3.	**Activities** • Chapter 3 Review • Cumulative Review 3 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 3 Review exercises
Chapter 3 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 3.		**Assessments** • Chapter 3 Test **BJU Press Trove** • ExamView: Chapter 3 test bank

Pages	Objectives	Resources	Assessments
First Quarter Review & Exam (3 days)			
	Review and demonstrate mastery of the skills and concepts taught in Chapters 1–3.		**Assessments** • Exam 1 **BJU Press Trove** • ExamView: Chapters 1–3 test banks

Chapter 4: Functions

Pages	Objectives	Resources	Assessments
4.1 Relations & Functions			
154–60	4.1.1 Represent relations and functions by using sets of ordered pairs, tables, mapping diagrams, and graphs. 4.1.2 Identify the domain and range of relations and functions. 4.1.3 Determine whether a relation is a function.	**BJU Press Trove*** • Video: Design in the World • PowerPoint presentation **AfterSchoolHelp.com** • Relations & Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 154)
4.2 Graphs of Relations & Functions			
161–68	4.2.1 Determine the domain and range of a relation by using graphed points. 4.2.2 Determine whether graphed points represent a function. 4.2.3 Graph relations and functions.	**Activities** • Relations & Functions **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Graphs of Relations & Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 161)
4.3 Using Graphs			
169–76	4.3.1 Draw graphs to model real-world data. 4.3.2 Interpret graphs representing real-world situations.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Using Graphs	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 169) **Assessments** • Quiz 4A (Sections 4.1–4.3)
4.4 Function Rules (2 days)			
177–84	4.4.1 Create sets of ordered pairs, tables, graphs, or mapping diagrams by using given function rules. 4.4.2 Write function rules by using sets of ordered pairs, tables, graphs, or mapping diagrams. 4.4.3 Use function rules to model real-world situations. 4.4.4 Explain how mathematics helps us see design in creation. **BWS** Design (explain)	**Activities** • Writing Function Rules **BJU Press Trove** • Video: Writing Function Rules • PowerPoint presentation **AfterSchoolHelp.com** • Function Rules	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 177)

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Pages	Objectives	Resources	Assessments
4.5 Arithmetic Sequences			
185–91	4.5.1 Define an arithmetic sequence. 4.5.2 Find missing terms in a sequence by determining the sequence's pattern. 4.5.3 Describe arithmetic sequences with multiple representations. 4.5.4 Solve real-world problems involving arithmetic sequences.	**Activities** • Arithmetic Sequences **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Arithmetic Sequences	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 185) **Assessments** • Quiz 4B (Sections 4.4–4.5)
4.6 Direct & Inverse Variations (2 days)			
192–99	4.6.1 Classify a function as a direct variation, inverse variation, or neither. 4.6.2 Find the constant of variation for direct and inverse variations. 4.6.3 Write functions modeling direct and inverse variations to solve real-world problems. 4.6.4 Explain the significance of recognizing design in nature. **BWS** Design (explain)	**Activities** • Direct & Inverse Variation Sudoku **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Direct & Inverse Variations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 193)
4.7 Graphing Absolute Value Functions (2 days)			
200–207	4.7.1 Create sets of ordered pairs, tables, and graphs representing absolute value functions. 4.7.2 Describe translations of the basic absolute value function $y = \|x\|$. 4.7.3 Write a function rule for the graph of an absolute value function.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Graphing Absolute Value Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 200) **Assessments** • Quiz 4C (Sections 4.6–4.7)
Application Problems—Fractals (2 days)			
208–10	4.AP.1 Perform mathematical analyses of fractals.	**Activities** • Constructing a 3D Fractal **BJU Press Trove** • Video: Fractals	**Student Edition** • Exercises

Pages	Objectives	Resources	Assessments
Chapter 4 Review			
211–15	Review the skills and concepts taught in Chapter 4.	**Activities** • Chapter 4 Review • Cumulative Review 4 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 4 Review exercises
Chapter 4 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 4.		**Assessments** • Chapter 4 Test **BJU Press Trove** • ExamView: Chapter 4 test bank

Chapter 5: Linear Functions

Pages	Objectives	Resources	Assessments
5.1 Graphing Lines			
218–23	5.1.1 Graph linear equations on the coordinate plane by using ordered pairs. 5.1.2 Convert equations of lines between standard form and function form. 5.1.3 Graph a linear equation by using the *x*- and *y*-intercepts.	**BJU Press Trove*** • Video: Validating Models • PowerPoint presentation **AfterSchoolHelp.com** • Graphing Lines	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 218)
5.2 Slope			
224–30	**5.2.1** Determine the slope of a line from a graph. **5.2.2** Find the slope of a line passing through 2 given points. **5.2.3** Apply slope in a real-world context. **BWS** Modeling (explain)	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Slope	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 224) **Assessments** • Quiz 5A (Sections 5.1–5.2)
5.3 Slope-Intercept Form			
231–35	**5.3.1** Identify the slope and *y*-intercept of a linear equation. 5.3.2 Model linear equations in slope-intercept form. 5.3.3 Model real-world situations by using linear equations in slope-intercept form.	**Activities** • Graphs of Lines • Direct Variation & Linear Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Slope-Intercept Form	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 231)
5.4 Writing Linear Equations (2 days)			
236–42	5.4.1 Write the equation of a line by using its slope and a point on the line. 5.4.2 Write the equation of a line by using the point-slope form. 5.4.3 Write the equation of a line given its graph. 5.4.4 Model real-world situations by using linear equations. 5.4.5 Explain why it is important to check the accuracy of a model. **BWS** Modeling (explain)	**Activities** • Forms of Linear Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Writing Linear Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 236) **Assessments** • Quiz 5B (Sections 5.3–5.4)

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Pages	Objectives	Resources	Assessments
5.5 Parallel & Perpendicular Lines			
243–47	5.5.1 Classify a pair of equations as parallel, perpendicular, or neither. 5.5.2 Write equations of parallel and perpendicular lines.	**BJU Press Trove** • Video: Parallel versus Perpendicular • PowerPoint presentation **AfterSchoolHelp.com** • Parallel & Perpendicular Lines	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 243)
5.6 Trend Lines & Correlation (2 days)			
248–54	5.6.1 Graph a trend line from a given scatter plot. 5.6.2 Make interpolations or extrapolations of the data using a trend line. 5.6.3 Describe the linear correlation of a given data set. 5.6.4 Determine the line of best fit from real-world data.	**Activities** • Using Technology—Regression Lines • Using Correlation & Lines of Best Fit **BJU Press Trove** • Video: Trend Lines • PowerPoint presentation **AfterSchoolHelp.com** • Trend Lines & Correlation	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 248–49) **Assessments** • Quiz 5C (Sections 5.5–5.6)
Application Problems—Safe Slopes			
255–56	5.AP.1 Calculate values related to slopes in construction. 5.AP.2 Recognize connections between slopes and safety.	**BJU Press Trove** • Video: Safe Slopes	**Student Edition** • Exercises
Chapter 5 Review			
257–60	Review the skills and concepts taught in Chapter 5.	**Activities** • Chapter 5 Review • Cumulative Review 5 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 5 Review exercises
Chapter 5 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 5.		**Assessments** • Chapter 5 Test **BJU Press Trove** • ExamView: Chapter 5 test bank

Pages	Objectives	Resources	Assessments
STEM Project—The Water Wheel			
261	S.1.1 Design a water wheel by using the engineering design process. S.1.2 Research the materials and design for a water-propelled wheel. S.1.3 Assemble a water wheel capable of lifting weights. S.1.4 Optimize the efficiency of the wheel by evaluating and modifying the design. S.1.5 Describe how work and power are related to each other.	**Activities** • STEM—The Water Wheel	**Activities** • STEM—The Water Wheel project grading rubric

Chapter 6: Linear Systems

Pages	Objectives	Resources	Assessments
6.1 Solving Systems by Graphing			
264–71	6.1.1 Solve systems of linear equations by graphing. 6.1.2 Describe the 3 possible types of solutions for a system of 2 linear equations. 6.1.3 Solve real-world problems by writing and graphing a system of linear equations. 6.1.4 Explain why the intersection of 2 distinct lines is exactly 1 point. **BWS** Reasoning (explain)	**Activities** • Graphing Systems • Breaking Even **BJU Press Trove*** • Video: Human Reasoning • PowerPoint presentation **AfterSchoolHelp.com** • Solving Systems by Graphing	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 265)
6.2 Solving Systems by Substitution (2 days)			
272–78	6.2.1 Solve systems of linear equations by substitution. 6.2.2 Solve real-world problems by writing and solving a system of linear equations.	**Activities** • Solving Systems by Substitution **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Solving Systems by Substitution	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 272) **Assessments** • Quiz 6A (Sections 6.1–6.2)
6.3 Solving Systems by Elimination			
279–84	6.3.1 Solve systems of linear equations by elimination. 6.3.2 Solve real-world problems by writing and solving a system of linear equations.	**Activities** • Solving Systems by Elimination • Math History—Zhu Shijie **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Solving Systems by Elimination	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 279)

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Pages	Objectives	Resources	Assessments
6.4 Special Systems (2 days)			
285–93	6.4.1 Solve a given linear system by using an appropriate method. 6.4.2 Classify linear systems as consistent independent, consistent dependent, or inconsistent. 6.4.3 Relate the slopes and *y*-intercepts of lines in each type of linear system. 6.4.4 Explain 2 assumptions necessary for this classification of linear systems. **BWS** Reasoning (explain)	**Activities** • 3-Dimensional Systems **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Special Systems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 285) **Assessments** • Quiz 6B (Sections 6.3–6.4)
6.5 Motion Problems (2 days)			
294–300	6.5.1 Solve real-world motion problems by using systems of linear equations.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Motion Problems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 294)
6.6 Mixture Problems (2 days)			
301–6	6.6.1 Solve real-world mixture problems by using a system of linear equations.	**Activities** • Word Problems **BJU Press Trove** • Video: Writing Mixture Problems • PowerPoint presentation **AfterSchoolHelp.com** • Mixture Problems	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 301) **Assessments** • Quiz 6C (Sections 6.5–6.6)
6.7 Graphing Linear Inequalities (2 days)			
307–13	6.7.1 Determine whether a point is a solution to a linear inequality. 6.7.2 Graph linear inequalities. 6.7.3 Model real-world situations with linear inequalities.	**Activities** • Linear Equations & Inequalities **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Graphing Linear Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 307)

Pages	Objectives	Resources	Assessments
6.8 Solving Systems of Inequalities (2 days)			
314–20	6.8.1 Solve systems of inequalities by graphing. 6.8.2 Solve real-world problems by graphing systems of inequalities.	**Activities** • Using Technology—Graphing Systems of Linear Inequalities **BJU Press Trove** • Video: Systems of Inequalities • PowerPoint presentation **AfterSchoolHelp.com** • Solving Systems of Inequalities	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 314) **Assessments** • Quiz 6D (Sections 6.7–6.8)
Application Problems—Historias de la Biblia			
321–22	6.AP.1 Apply concepts learned in Chapter 6 to ministry.	**BJU Press Trove** • Video: Spread Good News	**Student Edition** • Exercises
Chapter 6 Review			
323–27	Review the skills and concepts taught in Chapter 6.	**Activities** • Chapter 6 Review • Cumulative Review 6 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 6 Review exercises
Chapter 6 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 6.		**Assessments** • Chapter 6 Test **BJU Press Trove** • ExamView: Chapter 6 test bank
Second Quarter Review & Exam (3 days)			
	Review and demonstrate mastery of the skills and concepts taught in Chapters 4–6.		**Assessments** • Exam 2 **BJU Press Trove** • ExamView: Chapters 4–6 test banks

Chapter 7: Exponents

Pages	Objectives	Resources	Assessments
7.1 Properties of Exponents (2 days)			
330–36	7.1.1 Apply product, power, and quotient properties of exponents to simplify algebraic expressions. 7.1.2 Simplify powers containing a 0 or negative exponent. 7.1.3 Simplify algebraic expressions containing integral exponents and multiple terms.	**Activities** • The Binary Number System **BJU Press Trove*** • Video: Morality and Ethics • PowerPoint presentation **AfterSchoolHelp.com** • Properties of Exponents	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 330)
7.2 Scientific Notation			
337–43	7.2.1 Convert numbers between standard and scientific notation. 7.2.2 Apply properties of exponents to evaluate products, powers, quotients, sums, and differences of numbers in scientific notation. 7.2.3 Solve real-world problems using scientific notation. 7.2.4 Explain why it is tempting to view math as amoral. **BWS** Ethics (explain)	**Activities** • Scientific Notation • Large Numbers **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Scientific Notation	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 337) **Assessments** • Quiz 7A (Sections 7.1–7.2)
7.3 Power Functions (2 days)			
344–50	7.3.1 Identify the shape of the parent power functions $y = x^2$ and $y = x^3$ by plotting points. 7.3.2 Describe translations of power functions. 7.3.3 Graph translations of power functions by identifying the vertex or point of inflection. 7.3.4 Write basic power function rules from descriptions or graphs.	**Activities** • Translating Power Functions **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Power Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 344)

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Pages	Objectives	Resources	Assessments
7.4 Exponential Functions			
351–57	7.4.1 Define exponential functions. 7.4.2 Graph exponential functions by plotting ordered pairs. 7.4.3 Solve real-world problems using exponential functions. 7.4.4 Explain how math can be used in an unethical way. **BWS** Ethics (explain)	**Activities** • Using Technology—Families of Functions • Exponential Functions **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Exponential Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 351) **Assessments** • Quiz 7B (Sections 7.3–7.4)
7.5 Exponential Growth & Decay (2 days)			
358–64	7.5.1 Classify exponential functions as exhibiting exponential growth or decay. 7.5.2 Describe characteristics of an exponential growth or decay function. 7.5.3 Write functions modeling real-world exponential growth and decay. 7.5.4 Solve compound interest problems.	**Activities** • Exponential Decay **BJU Press Trove** • Video: Exponential Growth and Decay • PowerPoint presentation **AfterSchoolHelp.com** • Exponential Growth & Decay	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 358)
7.6 Geometric Sequences			
365–70	7.6.1 Define a geometric sequence. 7.6.2 Find missing terms in a geometric sequence by determining the sequence's pattern. 7.6.3 Describe geometric sequences with multiple representations. 7.6.4 Solve real-world problems involving geometric sequences.	**Activities** • Geometric Sequences **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Geometric Sequences	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 365) **Assessments** • Quiz 7C (Sections 7.5–7.6)
Application Problems—The Internet			
371–72	7.AP.1 Calculate values related to the internet.	**BJU Press Trove** • Video: The Internet	**Student Edition** • Exercises

Pages	Objectives	Resources	Assessments
Chapter 7 Review			
373–77	Review the skills and concepts taught in Chapter 7.	**Activities** • Chapter 7 Review • Cumulative Review 7 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 7 Review exercises
Chapter 7 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 7.		**Assessments** • Chapter 7 Test **BJU Press Trove** • ExamView: Chapter 7 test bank

Chapter 8: Polynomial Operations

Pages	Objectives	Resources	Assessments
8.1 Classifying & Evaluating Polynomials			
380–83	8.1.1 Define a polynomial. 8.1.2 Classify a polynomial by its number of terms and its degree. 8.1.3 Evaluate a polynomial using given values for the variables.	**Activities** • Velocity **BJU Press Trove*** • Video: God's Interpretation • PowerPoint presentation **AfterSchoolHelp.com** • Classifying & Evaluating Polynomials	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 380)
8.2 Adding & Subtracting Polynomials			
384–88	8.2.1 Add polynomials. 8.2.2 Subtract polynomials.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Adding & Subtracting Polynomials	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 384) **Assessments** • Quiz 8A (Sections 8.1–8.2)
8.3 Multiplying Polynomials (2 days)			
389–93	8.3.1 Model polynomial multiplication with algebra tiles. 8.3.2 Multiply a polynomial by a monomial. 8.3.3 Multiply any 2 polynomials. 8.3.4 Explain how to check results obtained by using the Distributive Property. **BWS** Foundations (explain)	**Activities** • Using Technology—Checking Polynomial Operations • Polynomials **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying Polynomials	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 389)
8.4 Multiplying Binomials by Using FOIL			
394–98	8.4.1 Find the product of 2 binomials by using the FOIL method. 8.4.2 Create polynomial models of real-world problems involving binomials.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying Binomials by Using FOIL	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 394) **Assessments** • Quiz 8B (Sections 8.3–8.4)

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Pages	Objectives	Resources	Assessments
8.5 Special Products (2 days)			
399–403	8.5.1 Use patterns to find the square of a sum or difference. 8.5.2 Use patterns to find the product of conjugates. 8.5.3 Explain why we can define properties that are consistent and reliable. **BWS** Foundations (explain)	**Activities** • Multiplying Polynomials **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Special Products	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 399)
8.6 Dividing Polynomials (2 days)			
404–9	8.6.1 Divide a polynomial by a monomial. 8.6.2 Divide a polynomial by a binomial.	**Activities** • Dividing Polynomials • Operations & Properties **BJU Press Trove** • Video: Dividing Polynomials • PowerPoint presentation **AfterSchoolHelp.com** • Dividing Polynomials	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 404) **Assessments** • Quiz 8C (Sections 8.5–8.6)
Application Problems—Modeling Population Growth			
410–11	8.AP.1 Calculate values related to population growth.	**BJU Press Trove** • Video: Population Modeling	**Student Edition** • Exercises
Chapter 8 Review			
412–15	Review the skills and concepts taught in Chapter 8.	**Activities** • Chapter 8 Review • Cumulative Review 8 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 8 Review exercises
Chapter 8 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 8.		**Assessments** • Chapter 8 Test **BJU Press Trove** • ExamView: Chapter 8 test bank

Chapter 9: Factoring Polynomials

Pages	Objectives	Resources	Assessments
9.1 Factoring by Using the Distributive Property			
418–22	9.1.1 Identify the GCF of the terms of a polynomial. 9.1.2 Factor a common monomial or binomial from a polynomial. 9.1.3 Explain how the Distributive Property justifies factoring out a monomial from a polynomial. **BWS** Design (explain)	**BJU Press Trove*** • Video: Patterns in Nature • PowerPoint presentation **AfterSchoolHelp.com** • Factoring by Using the Distributive Property	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 418)
9.2 Factoring Trinomials of the Form $x^2 + bx + c$			
423–29	9.2.1 Relate the FOIL method to factoring trinomials. 9.2.2 Factor a trinomial of the form $x^2 + bx + c$.	**Activities** • Common Factors & Factoring Trinomials **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Factoring Trinomials of the Form $x^2 + bx + c$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 423)
9.3 Factoring Trinomials of the Form $ax^2 + bx + c$ (2 days)			
430–35	9.3.1 Factor a trinomial of the form $ax^2 + bx + c$ or $ax^2 + bxy + cy^2$.	**BJU Press Trove** • Video: Factoring Trinomials • PowerPoint presentation **AfterSchoolHelp.com** • Factoring Trinomials of the Form $ax^2 + bx + c$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 430) **Assessments** • Quiz 9A (Sections 9.1–9.3)
9.4 Special Patterns (2 days)			
436–40	9.4.1 Apply the pattern to factor a difference of squares. 9.4.2 Apply the pattern to factor a perfect square trinomial. 9.4.3 Evaluate the claim that one's worldview does not affect how one views patterns in math and science. **BWS** Design (evaluate)	**Activities** • Factoring Trinomials & Special Patterns • Factoring Differences **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Special Patterns	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 436)

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Pages	Objectives	Resources	Assessments
9.5 Factoring Completely			
441–44	9.5.1 Describe a completely factored polynomial. 9.5.2 Completely factor binomials and trinomials. 9.5.3 Factor polynomials with 4 unlike terms by grouping.	**Activities** • Factoring Completely • Using Technology—Factor Check • Factor Formula **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Factoring Completely	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 441) **Assessments** • Quiz 9B (Sections 9.4–9.5)
Application Problems—Glaciers			
445–47	9.AP.1 Perform mathematical calculations related to glaciers.	**BJU Press Trove** • Video: Glaciers	**Student Edition** • Exercises
Chapter 9 Review			
448–49	Review the skills and concepts taught in Chapter 9.	**Activities** • Chapter 9 Review • Cumulative Review 9 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 9 Review exercises
Chapter 9 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 9.		**Assessments** • Chapter 9 Test **BJU Press Trove** • ExamView: Chapter 9 test bank
Third Quarter Review & Exam (3 days)			
	Review and demonstrate mastery of the skills and concepts taught in Chapters 7–9.	**BJU Press Trove** • ExamView: Chapters 7–9 test banks	**Assessments** • Exam 3

Chapter 10: Radicals

Pages	Objectives	Resources	Assessments
10.1 Simplifying Radicals (2 days)			
452–58	10.1.1 Convert expressions between radical form and exponential form. 10.1.2 Simplify numerical radicals. 10.1.3 Simplify radicals with variable radicands.	**Activities** • Math History—Fibonacci • Imaginary Numbers? • Simplifying Radicals **BJU Press Trove*** • Video: Ultimate Standards • PowerPoint presentation **AfterSchoolHelp.com** • Simplifying Radicals	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 452)
10.2 Multiplying Radicals			
459–64	10.2.1 Multiply numerical radicals. 10.2.2 Multiply radicals with variable radicands. 10.2.3 Explain how to multiply radicals with different indices. **BWS** Reasoning (explain)	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying Radicals	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 459)
10.3 Dividing Radicals			
465–68	10.3.1 Divide numerical radicals. 10.3.2 Divide radicals with variable radicands. 10.3.3 Rationalize denominators containing a radical.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Dividing Radicals	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 465) **Assessments** • Quiz 10A (Sections 10.1–10.3)
10.4 Adding & Subtracting Radicals (2 days)			
469–73	10.4.1 Define like radicals. 10.4.2 Add and subtract numerical radicals. 10.4.3 Add and subtract radicals with variable radicands.	**Activities** • Operations with Radicals **BJU Press Trove** • Video: Adding and Subtracting Radicals • PowerPoint presentation **AfterSchoolHelp.com** • Adding & Subtracting Radicals	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 469)

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Pages	Objectives	Resources	Assessments
10.5 The Pythagorean Theorem			
474–81	10.5.1 Apply the Pythagorean Theorem to find an unknown side length in a right triangle. 10.5.2 Apply the converse of the Pythagorean Theorem to determine whether a triangle is a right triangle. 10.5.3 Determine the length and midpoint of segments in the coordinate plane. 10.5.4 Evaluate the claim that the effectiveness of the Pythagorean Theorem proves that Euclidean geometry is true. **BWS** Reasoning (evaluate)	**Activities** • Pythagorean Triples **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • The Pythagorean Theorem	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 474)
10.6 Multiplying & Dividing Radical Expressions (2 days)			
482–85	10.6.1 Multiply sums and differences containing radicals by using the FOIL method. 10.6.2 Divide sums and differences containing radicals by using conjugates.	**BJU Press Trove** • Video: Multiplying and Dividing Radical Expressions • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying & Dividing Radical Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 482) **Assessments** • Quiz 10B (Sections 10.4–10.6)
10.7 Radical Equations (2 days)			
486–89	10.7.1 Define a radical equation. 10.7.2 Solve radical equations. 10.7.3 Identify extraneous solutions to radical equations.	**Activities** • Radical Expressions & Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Radical Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 486)

Pages	Objectives	Resources	Assessments
10.8 Square Root Functions			
490–95	10.8.1 Determine the domain of a square root function. 10.8.2 Graph square root functions by plotting coordinate points. 10.8.3 Describe translations and reflections of square root functions.	**Activities** • Using Technology—Radical Functions **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Square Root Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 490) **Assessments** • Quiz 10C (Sections 10.7–10.8)
Application Problems—The Golden Ratio			
496–97	10.AP.1 Explore mathematical and physical characteristics of the golden ratio.	**BJU Press Trove** • Video: Golden Ratio	**Student Edition** • Exercises
Chapter 10 Review			
498–503	Review the skills and concepts taught in Chapter 10.	**Activities** • Chapter 10 Review • Cumulative Review 10 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 10 Review exercises
Chapter 10 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 10.		**Assessments** • Chapter 10 Test **BJU Press Trove** • ExamView: Chapter 10 test bank

Chapter 11: Quadratic Equations & Functions

Pages	Objectives	Resources	Assessments
11.1 Solving Quadratic Equations by Factoring (2 days)			
506–10	11.1.1 Solve quadratic equations by factoring and applying the Zero Product Property. 11.1.2 Solve real-world problems involving factorable quadratic equations.	**Activities** • Solving Quadratic Equations by Factoring **BJU Press Trove*** • Video: Mathematical Models • PowerPoint presentation **AfterSchoolHelp.com** • Solving Quadratic Equations by Factoring	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 506)
11.2 Solving Quadratic Equations by Taking Roots			
511–16	11.2.1 Describe solutions of the equation $x^2 = c$. 11.2.2 Solve quadratic equations of the form $ax^2 - c = 0$ by taking roots. 11.2.3 Solve quadratic equations of the form $(x + b)^2 = c$ by taking roots. 11.2.4 Solve real-world problems involving quadratics.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Solving Quadratic Equations by Taking Roots	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 511) **Assessments** • Quiz 11A (Sections 11.1–11.2)
11.3 Completing the Square: $x^2 + bx + c = 0$ (2 days)			
517–22	11.3.1 Complete the square for expressions of the form $x^2 + bx$. 11.3.2 Solve quadratic equations of the form $x^2 + bx + c = 0$ by completing the square.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Completing the Square: $x^2 + bx + c = 0$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 517)
11.4 Completing the Square: $ax^2 + bx + c = 0$ (2 days)			
523–27	11.4.1 Solve quadratic equations of the form $ax^2 + bx + c = 0$ by completing the square. 11.4.2 Solve real-world problems involving quadratic equations by completing the square.	**Activities** • Taking Roots & Completing the Square **BJU Press Trove** • Video: Completing the Square • PowerPoint presentation **AfterSchoolHelp.com** • Completing the Square: $ax^2 + bx + c = 0$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 523) **Assessments** • Quiz 11B (Sections 11.3–11.4)

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Pages	Objectives	Resources	Assessments
11.5 The Quadratic Formula (2 days)			
528–32	11.5.1 Solve quadratic equations using the quadratic formula. 11.5.2 Explain the proper use of a mathematical model. **BWS** Modeling (explain)	**Activities** • The Quadratic Formula **BJU Press Trove** • Video: The Quadratic Formula • PowerPoint presentation **AfterSchoolHelp.com** • The Quadratic Formula	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 528)
11.6 More Quadratic Equations			
533–37	11.6.1 Describe the solutions of a quadratic equation by evaluating the discriminant. 11.6.2 Solve quadratic equations by using the most efficient method. 11.6.3 Model quadratics by writing equations in standard form using given solutions.	**Activities** • Polynomial & Radical Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • More Quadratic Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 533) **Assessments** • Quiz 11C (Sections 11.5–11.6)
11.7 Quadratic Functions: $f(x) = ax2 + c$ (2 days)			
538–42	11.7.1 Graph quadratic functions of the form $f(x) = ax^2 + c$ by plotting coordinate points. 11.7.2 Describe the effect of a and c on the graph of a quadratic function.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Quadratic Functions: $f(x) = ax^2 + c$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 538)
11.8 Quadratic Functions: $f(x) = a(x - h)^2 + k$ (2 days)			
543–48	11.8.1 Graph quadratic functions of the form $f(x) = a(x - h)^2 + k$. 11.8.2 Find the vertex of the quadratic function $f(x) = ax^2 + bx + c$. 11.8.3 Graph quadratic functions in standard form. 11.8.4 Defend the claim that mathematical models are useful but limited. **BWS** Modeling (formulate)	**Activities** • Quadratic Functions, Optimization & Estimation **BJU Press Trove** • Video: Quadratic Functions • PowerPoint presentation **AfterSchoolHelp.com** • Quadratic Functions: $f(x) = a(x - h)^2 + k$	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 543)

Pages	Objectives	Resources	Assessments
11.9 Zeros of a Quadratic Function			
549–53	11.9.1 Find the *y*-intercept of a quadratic function. 11.9.2 Find the zeros of a quadratic function. 11.9.3 Graph a quadratic function using its intercepts and vertex.	**Activities** • Using Technology—Solving Quadratic Equations by Graphing • The Quadratic Function in Action **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Zeros of a Quadratic Function	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 549) **Assessments** • Quiz 11D (Sections 11.7–11.9)
Application Problems—Water Fountains			
554–55	11.AP.1 Calculate values related to water motion.	**BJU Press Trove** • Video: Water Fountains	**Student Edition** • Exercises
Chapter 11 Review			
556–60	Review the skills and concepts taught in Chapter 11.	**Activities** • Chapter 11 Review • Cumulative Review 11 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 11 Review exercises
Chapter 11 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 11.		**Assessments** • Chapter 11 Test **BJU Press Trove** • ExamView: Chapter 11 test bank
STEM Project—Mission Control			
561	S.2.1 Design a Ping-Pong ball launcher by using the engineering design process. S.2.2 Research the materials and design for projectile launchers. S.2.3 Assemble a launcher for launching a Ping-Pong ball at a target. S.2.4 Optimize the efficiency of the launcher by evaluating and modifying the design.	**Activities** • STEM—Mission Control	**Activities** • STEM—Mission Control project grading rubric

Chapter 12: Rational Expressions & Equations

Pages	Objectives	Resources	Assessments
12.1 Simplifying Rational Expressions			
564–68	12.1.1 Determine values for which a rational expression is undefined. 12.1.2 Simplify rational expressions by canceling common factors. 12.1.3 Defend the claim that mathematics helps us see design in creation. **BWS** Design (explain)	**BJU Press Trove*** • Video: Design in Nature • PowerPoint presentation **AfterSchoolHelp.com** • Simplifying Rational Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 564)
12.2 Multiplying & Dividing Rational Expressions			
569–72	12.2.1 Multiply rational expressions. 12.2.2 Divide rational expressions.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Multiplying & Dividing Rational Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 569) **Assessments** • Quiz 12A (Sections 12.1–12.2)
12.3 Adding & Subtracting Expressions with Common Denominators (2 days)			
573–76	12.3.1 Add rational expressions with common denominators. 12.3.2 Subtract rational expressions with common denominators.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Adding & Subtracting Expressions with Common Denominators	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 573)
12.4 Adding & Subtracting Expressions with Unlike Denominators (2 days)			
577–82	12.4.1 Find the least common multiple of 2 algebraic expressions. 12.4.2 Add rational expressions with unlike denominators. 12.4.3 Subtract rational expressions with unlike denominators.	**BJU Press Trove** • Video: Adding Rational Expressions • PowerPoint presentation **AfterSchoolHelp.com** • Adding & Subtracting Expressions with Unlike Denominators	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 577) **Assessments** • Quiz 12B (Sections 12.3–12.4)

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Pages	Objectives	Resources	Assessments
12.5 Mixed & Complex Expressions (2 days)			
583–87	12.5.1 Simplify mixed rational expressions. 12.5.2 Simplify complex rational expressions. 12.5.3 Apply what is learned through math to praise the Creator. **BWS** Design (apply)	**Activities** • Operations with Rational Expressions **BJU Press Trove** • Video: Mixed Rational Expressions • PowerPoint presentation **AfterSchoolHelp.com** • Mixed & Complex Expressions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 583)
12.6 Solving Rational Equations			
588–92	12.6.1 Solve rational equations by using cross products. 12.6.2 Solve rational equations by clearing fractions.	**Activities** • Using Technology—Solving Rational Equations • Rational Equations **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Solving Rational Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 588) **Assessments** • Quiz 12C (Sections 12.5–12.6)
12.7 Applying Rational Equations (2 days)			
593–600	12.7.1 Solve real-world rate problems by writing and solving rational equations.	**Activities** • Applying Rational Equations • Electrical Resistance **BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Applying Rational Equations	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 593)
12.8 Graphing Rational Functions			
601–7	12.8.1 Define a rational function. 12.8.2 Graph a rational function of the form $f(x) = \frac{a}{x-h} + k$. 12.8.3 Identify the center and asymptotes of a rational function in the form $f(x) = \frac{a}{x-h} + k$.	**BJU Press Trove** • PowerPoint presentation **AfterSchoolHelp.com** • Graphing Rational Functions	**Student Edition** • Skill Checks • Exercises **Teacher Edition** • Bell ringer (p. 601) **Assessments** • Quiz 12D (Sections 12.7–12.8)

Pages	Objectives	Resources	Assessments
Application Problems—Arithmetic & Harmonic Means			
608–9	12.AP.1 Calculate arithmetic and harmonic means.	**BJU Press Trove** • Video: Arithmetic and Harmonic Means	**Student Edition** • Exercises
Chapter 12 Review			
610–13	Review the skills and concepts taught in Chapter 12.	**Activities** • Chapter 12 Review • Cumulative Review 12 **BJU Press Trove** • Game: Mathardy	**Student Edition** • Chapter 12 Review exercises
Chapter 12 Test			
	Demonstrate mastery of skills and concepts taught in Chapter 12.		**Assessments** • Chapter 12 Test **BJU Press Trove** • ExamView: Chapter 12 test bank
Fourth Quarter Review & Exam (3 days)			
	Review and demonstrate mastery of the skills and concepts taught in Chapters 10–12.		**Assessments** • Exam 4 **BJU Press Trove** • ExamView: Chapters 10–12 test banks