

# Reasoning Through Language Arts

# **Unit 1: The Reading Process**

- Lesson 1 What is Reading?
- · Lesson 2 Pre-Reading
- · Lesson 3 During Reading
- · Lesson 4 After Reading

# **Unit 2: Vocabulary and Word Skills**

- · Lesson 1 Understanding Word Parts
- · Lesson 2 Vocabulary in Context
- · Lesson 3 Confused Pairs
- Lesson 4 Learning Vocabulary

# **Unit 3: Reading Comprehension Skills**

- Lesson 1 Main Ideas
- Lesson 2 Details
- Lesson 3 Inferences

# **Unit 4: Patterns of Organization**

- Lesson 1 Fact and Opinion
- · Lesson 2 Cause and Effect & Compare and Contrast
- Lesson 3 Time Order, Narrative Process
- Lesson 4 Classification, Description and Listing of Examples

# **Unit 5: Purpose and Tone**

- Lesson 1 Purpose and Tone
- Lesson 2 Informative Reading
- Lesson 3 Reading for Pleasure

# **Unit 6: Graphics and Electronic Texts**

- · Lesson 1 Reading Graphics with Understanding
- · Lesson 2 Reading Electronic Texts



# **Unit 7: The Writing Process**

- · Lesson 1 Paragraphs and Sentences
- · Lesson 2 Patterns of Organization
- · Lesson 3 The Writing Process
- · Lesson 4 Introduction to Referencing Materials

# Mathematics

### **Unit 1: Introduction to Real Numbers**

- Lesson 1 Integers
- · Lesson 2 Addition with Integers
- · Lesson 3 Subtraction with Integers
- · Lesson 4 Adding and Subtracting Signed Numbers
- · Lesson 5 Multiplication, Division and Order of Operations with Integer Numbers
- · Lesson 6 Multiplication, Division and Order of Operations with Rational Numbers

## **Unit 2: Variables and Algebraic Expressions**

- · Lesson 1 Variables and Algebraic Expressions
- · Lesson 2 Combining Like Terms and Simplifying Expressions
- · Lesson 3 Solving Algebraic Equations Using the Addition and Subtraction Principle
- · Lesson 4 Solving Algebraic Equations Using the Multiplication Principle
- · Lesson 5 Solving Algebraic Equations Using the Multiplication and Addition Principle
- · Lesson 6 Solving Algebraic Equations with Fractions and Decimals
- Lesson 7 Translating and Word Problems
- Lesson 8 Solving Linear Equations
- · Lesson 9 Solving Linear Equations Which Have the Variable on Both Sides
- · Lesson 10 Solving Literal Equations
- · Lesson 11 Use Linear Equations to Solve Word Problems
- · Lesson 12 Probability, Combinations, and Permutations

### **Unit 3: Introduction to Geometry**

- · Lesson 1 Points, Lines, Planes, and Angles
- Lesson 2 Classifying Triangles and the Pythagorean Theorem
- Lesson 3 Classifying Quadrilaterals
- Lesson 4 Circles
- · Lesson 5 Perimeter and Area of Polygons
- Lesson 6 Volume

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# Unit 4: Linear Inequalities in One Variable

- · Lesson 1 Set Notation, Interval Notation, and Terminology
- · Lesson 2 Solve and Graph Single Linear Inequalities
- Lesson 3 Solve and Graph Compound Linear Inequalities in One Variable
- · Lesson 4 Solve Linear Equations and Inequalities Containing Absolute Value

### **Unit 5: Linear Functions**

- Lesson 1 Introduction to Graphing
- · Lesson 2 Representing, Displaying, and Interpreting Data in Graphics
- · Lesson 3 Graphing Linear Functions Using a Table of Values
- · Lesson 4 Graphing Horizontal and Vertical Lines
- · Lesson 5 Graphing Linear Functions Using Intercepts
- · Lesson 6 Rate of Change Understanding Slope in Context
- Lesson 7 Slope of a Line
- · Lesson 8 Equations of Lines (Slope-Intercept and Point-Slope Form)
- Lesson 9 Graphing Linear Functions in Slope-Intercept Form
- · Lesson 10 Applications of Linear Functions
- · Lesson 11 Write the Equation of a Line Perpendicular or Parallel to a Given Line
- · Lesson 12 Graph Linear Inequalities in Two Variable

# **Unit 6: Polynomials and Factoring**

- · Lesson 1 Introduction to Polynomials
- · Lesson 2 Addition and Subtraction in Polynomials
- · Lesson 3 Multiplication of Polynomials
- Lesson 4 Division of Polynomials
- · Lesson 5 Factoring by Greatest Common Factor and Grouping
- · Lesson 6 Factoring Differences of Squares
- · Lesson 7 Factoring Trinomials
- · Lesson 8 Factoring Sum and Difference of Cubes
- Lesson 9 Solving Equations by Factoring
- Lesson 10 Applications: Word Problems
- Lesson 11 Equations in Quadratic Form



# **Unit 7: Rational Expressions**

- Lesson 1 Simplifying Rational Expressions and Determining Excluded Values
- Lesson 2 Multiplication and Division of Rational Expressions
- Lesson 3 Addition and Subtraction of Rational Expressions
- Lesson 4 Perform Operations with Complex Fractions
- · Lesson 5 Solve Equations with Rational Expressions
- · Lesson 6 Rational Exponents
- · Lesson 7 Applications: Word Problems

# Science

# Unit 1: Scientific Methods and Technology

- Lesson 1 Science as Inquiry
- Lesson 2 Science and Technology

## **Unit 2: Life Science**

- Lesson 1 The Human Body
- Lesson 2 The Cell
- · Lesson 3 Molecular Basis of Heredity
- · Lesson 4 Understanding Evolution
- Lesson 5 Form and Function
- · Lesson 6 Interdependence of Organisms
- · Lesson 7 Behavior of Organisms

### **Unit 3: Physical Science**

- · Lesson 1 Structure and Properties of Matter
- Lesson 2 Chemical Reactions
- Lesson 3 Motion and Forces
- · Lesson 4 Systems, Order and Organization
- · Lesson 5 Interactions of Energy and Matter

# Unit 4: Earth and Space Science

- Lesson 1 Energy in the Earth System
- · Lesson 2 Evolution of the Earth System
- · Lesson 3 Origin and Evolution of the Universe
- Lesson 4 Preservation of the Earth and its Resources

For more information, contact: Center for the Application of Information Technologies

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# Social Studies

# **Unit 1: Civics and Government**

- · Lesson 1 Modern and Historical Governments
- · Lesson 2 American Constitutional Democracy
- · Lesson 3 Structure and Design of United States Government
- Lesson 4 Political Parties, Campaigns, Elections, Electoral Process, and Contemporary Public Policy

### **Unit 2: United States History**

- · Lesson 1 Revolutionary and Early Republic Periods
- · Lesson 2 Civil War and Reconstruction
- Lesson 3 Civil Rights
- Lesson 4 A World at War
- Lesson 5 The Cold War and Foreign Policy Since 9/11

### **Unit 3: Economics**

- · Lesson 1 Fundamental Economic Concepts
- · Lesson 2 Microeconomics and Macroeconomics
- · Lesson 3 Key Economic Events Shaping American Government and Policies
- Lesson 4 Consumer Education

## Unit 4: Geography and the World

- Lesson 1 Development of Classical Civilizations
- · Lesson 2 Relationship Between the Environment and Societal Development
- · Lesson 3 Borders Between People and Nations

# **Basic Writing**

# **Unit 1: Sentence Structure**

- · Lesson 1 Identifying and Using Parts of Speech
- Lesson 2 Punctuation
- · Lesson 3 Understanding Sentence Structure
- Lesson 4 Combining Sentences
- Lesson 5 Errors in Grammar

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# **Unit 2: Paragraph Writing**

- Lesson 1 Introduction to the Writing Process
- · Lesson 2 Sentences and Paragraphs
- · Lesson 3 Patterns of Development Part I
- · Lesson 4 Patterns of Development Part II

### **Unit 3: Effective Sentences**

- Lesson 1 Word Choice
- · Lesson 2 Sentence Variety
- Lesson 3 Sentence Clarity
- Lesson 4 Revising and Editing

# **Unit 4: Introduction to Referencing Materials**

- · Lesson 1 Gathering Information and Citing Resources
- · Lesson 2 Summarizing, Paraphrasing, and Quoting

# **Unit 5: Essay Writing**

- Lesson 1 The Writing Process
- Lesson 2 Essay Development
- Lesson 3 Writing Strategies

# Basic Math

### Unit 1: Whole Numbers - Place Value, Rounding and Estimating

- Lesson 1 Place Value, Rounding, and Estimating
- · Lesson 2 Whole Numbers Addition, Subtraction, Multiplication and Division
- · Lesson 3 Mean, Median, Mode and Range
- Lesson 4 Exponents
- Lesson 5 Order of Operations
- · Lesson 6 Prime Numbers
- Lesson 7 Prime Factorization
- Lesson 8 Prime Numbers and Least Common Multiples
- Lesson 9 Problem Solving



# **Unit 2: Fractions and Mixed Numbers**

- · Lesson 1 Introduction to Fractions
- · Lesson 2 Multiplication with Fractions
- · Lesson 3 Dividing Fractions
- Lesson 4 Adding Fractions
- · Lesson 5 Subtraction with Fractions
- Lesson 6 Mixed Numbers
- · Lesson 7 Multiplying and Dividing with Mixed Numbers
- · Lesson 8 Adding and Subtracting Mixed Numbers

# **Unit 3: Decimals**

- Lesson 1 Decimal Numbers
- · Lesson 2 Addition and Subtraction with Decimal Numbers
- Lesson 3 Multiplication and Division with Decimal Numbers
- · Lesson 4 Introduction to Decimals, Fractions, and Percentages

# **Unit 4: Ratios and Proportions**

- · Lesson 1 Ratio and Price Per Unit
- · Lesson 2 Ratios and Proportions
- · Lesson 3 Finding the Unknown Term in Proportions
- Lesson 4 Problem Solving with Proportions
- · Lesson 5 Proportions in Geometry

## **Unit 5: Percents**

- · Lesson 1 Decimals and Percentages
- · Lesson 2 Fractions and Percentages
- · Lesson 3 Applications with Percentages
- Lesson 4 Simple Interest
- · Lesson 5 Percent of Increase and Percent of Decrease