

## Lifetime Library Scope and Sequence

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p><b>MATH 1</b> Lesson 1 Introduction You will</p> <ul style="list-style-type: none"> <li>describe the formal problem-solving approach</li> <li>select appropriate problem-solving strategies.</li> </ul>	<p>Lesson 1 Chapter 1: " Problem solving; a mathematical process" "Say that again..." "Once more..." Chapter 2: "Look for a Pattern" "Draw a Picture" "Guess and Check" Chapter 3 "Change point of View" "Act it Out" Solve a Simpler problem" "Look for a similar problem"</p>	<p>Billy has to be at Granny's house by noon on Tuesday. It's a 250-mile drive, and he knows he can average 50 miles per hour. He needs to know how much time to allow on Tuesday morning for the drive.</p>	<p>1. An Approach That Always Works 2. Four Simple Problem-Solving Strategies 3. Four More Complex Strategies</p>	<p>Problem Solving Steps 1. Define the problem 2. Find the best strategy 3. Solve the problem 4. Check the answer Problem Solving Strategies 1. Look for a pattern 2. Draw a picture 3. Make a table or list 4. Guess and check 5. Change your point of view 6. Act it out 7. Solve a simpler problem 8. Look for a similar problem</p>	<p>A. The Colonial Riddle B. Creative e Thinking Exercise C. Draw-a-Picture Problem</p>
<p>Lesson 2 Numbers You will</p> <ul style="list-style-type: none"> <li>interpret the meaning of numbers found in the real world;</li> <li>solve problems requiring whole number addition;</li> <li>interpret and solve addition problems involving large numbers.</li> </ul>	<p>Chapter 1 The Human Calculator Math starts with a couple simple ideas: counting and matching. Using the concept of the number line. Chapter 2 Addition Chapter 3 Large Numbers</p>	<p>The state of Delawaska is voting on the ban-the-can referendum. Two thirds of those voting must be in favor of the referendum if it is to pass. On election night, it appears that the race will be decided in the four southern counties of the state. The total votes from these counties have to be counted to see if the ban-the-can measure passes.</p>	<p>1. Numbers in the Real World 2. Adding Numbers 3. Large Numbers</p>	<p>1. Number review and how they work. Like letters, words, numerals, numbers, and number lines. 2. Addition of one quantity to another to get a third quantity. 3. Looking at all the ways large numbers are just like smaller numbers.</p>	<p>A. What's a Name? What's a Number B. Addition in a Frame Shop C. A Chessboard Full of Wheat D. Counting Votes</p>
<p>Lesson 3 Operations You will</p> <ul style="list-style-type: none"> <li>solve problems requiring multiplication;</li> <li>solve problems requiring subtraction;</li> <li>solve problems requiring division.</li> </ul>	<p>Multiplication Division</p>	<p>Paula, Pauline and Paulette want to join forces and open an antique store. They must determine how much rent they will have to pay based on the total number of square feet in their three-room store.</p>	<p>1. Multiplication 2. Subtraction 3. Division</p>	<p>Lesson 3 works in combination with Lesson 2. They cover the basic operations in math: addition, multiplication, subtraction, and division.</p>	<p>A. Visualizing Multiplication B. Multiplication by 9 C. Miles per Hour D. Plants per Foot E. Paula, Pauline, and Paulette's Problem</p>
<p>Lesson 4 Problems You will</p> <ul style="list-style-type: none"> <li>select and use the correct basic operation;</li> <li>solve problems requiring two different operations;</li> <li>solve complex problems requiring more than basic operations.</li> </ul>	<p>Chapter 1. "How Much is Enough?" Chapter 2. "Explaining to a Child" Chapter 3. "Explaining to a Child" Part 2 Appendix A Appendix B Appendix C</p>	<p>Two neighbors, Roger and Richard, compete to see who gets the better gas mileage with his lawnmower. Roger has 5,075 Sq. ft. of grass and he cuts the grass 12 times using 14 gallons of gas. Richard has 4,120 sq. ft. of grass and he cuts his grass 11 times using 10 gallons of gas. Who cuts fewer sq. ft. per gallon of gas?</p>	<p>1. Which Operation Should I Use? 2. Problems with Two Operations 3. Problems with More Than Two Operations</p>	<p>This Lesson is about solving complex problems that require several basic operations.</p>	<p>A. The Fish Market B. Linear Feet and Linear Inches C. Roger vs. Richard</p>

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<p>Lesson 5 Fractions</p> <p>You will</p> <ul style="list-style-type: none"> <li>• solve problems requiring the multiplication of fractions;</li> <li>• solve problems requiring the addition of fractions;</li> <li>• solve problems requiring the subtraction of fractions.</li> </ul>	<p>Chapter 1 "What's a Fraction?"</p> <p>Chapter 2 "Adding Fractions"</p> <p>Chapter 3 "Subtracting Fractions"</p> <p>Appendix A, B, C, D and E</p>	<p>Bill's granddad hated banks. He buried his valuables in a coffee can near an old oak tree behind the house. The old man gave Bill directions to the can's location that were a jumble of fractions. Bill has to add, subtract, and multiply fractions to find the location of the can.</p>	<ol style="list-style-type: none"> <li>1. Getting Started</li> <li>2. Adding Fractions</li> <li>3. Subtracting Fractions</li> </ol>	<p>This Lesson concentrates on fractions, adding them, subtracting them, multiplying them, and solving problems with them.</p>	<p>A. A Nice Meal for Somebody</p> <p>B. Multiplying Fractions in a Restaurant</p> <p>C. An Eighth of an Inch Too Short</p> <p>D. Five Sisters</p> <p>E. Granddad's Treasure</p>
<p>Lesson 6 Decimals</p> <p>You will</p> <ul style="list-style-type: none"> <li>• solve problems requiring regrouping by tens;</li> <li>• solve problems involving basic operations with decimals;</li> <li>• and express fractions as decimals.</li> </ul>	<p>Chapter 1 "Grouping"</p> <p>Chapter 2 "Everyday Problems" - Adding (Money)</p> <p>Subtracting Decimals (Money)</p> <p>Appendix A, B, and C</p>	<p>Mary and Marv need a car for Mary to drive to work. They want to keep transportation cost as low as possible. They must choose between two cars based on cost, depreciation, and gas mileage.</p>	<ol style="list-style-type: none"> <li>1. Grouping and Place Value</li> <li>2. Basic Operations with Decimals</li> <li>3. Changing Fractions into Decimals</li> </ol>	<p>Solving Mary and Marv's car purchase using decimal operations and changing fractions into decimals.</p>	<p>A. Decimal Point Pivots</p> <p>B. Trading Cards</p> <p>C. Marv and Mary's Car</p>
<p>Lesson 7 Estimates</p> <p>You will</p> <ul style="list-style-type: none"> <li>• recognize when estimation is appropriate;</li> <li>• determine the level of accuracy required of an estimate based on the situation;</li> <li>• and apply three estimation techniques to solve real-life problems.</li> </ul>	<p>Chapter 1 "Three Good Reasons to Estimate"</p> <p>Chapter 2 "The Margin of Safety" (Purchase Estimates)</p> <p>Chapter 3 "Getting Down to It" Estimating</p> <ol style="list-style-type: none"> <li>1. Left Most Digit</li> <li>2. Second-digit Rounding</li> <li>3. Clustering</li> </ol> <p>Appendix A,B,C,D, E, and F</p>	<p>Ralph's grandmother is turning 90, so the family has decided to throw a party. They're inviting 55 guests and are planning to serve coffee and cake. They predict each guest will eat one and one half pieces of cake and drink two cups of coffee. Coffee costs \$10 per gallon and a cake cut into 24 pieces is \$25. Estimate whether \$300 will be enough if they hire a band for \$75.</p>	<ol style="list-style-type: none"> <li>1. When to Estimate</li> <li>2. The Margin of Safety</li> <li>3. Effective Estimating</li> </ol>	<p>Solving Granny's party cost using estimating.</p>	<p>A. Columbus Estimates the Earth</p> <p>B. How Much Does the Earth Weigh?</p> <p>C. Estimating in a Restaurant</p> <p>D. Looking For Water</p> <p>E. Dairy Cows</p> <p>F. Granny's Party</p>
<p>Lesson 8 Calculator</p> <p>You will</p> <ul style="list-style-type: none"> <li>• calculate the solution to problems requiring basic operations;</li> <li>• estimate to check the reasonableness of calculator solutions;</li> <li>• and calculate the solution to problems using a memory key.</li> </ul>	<p>Chapter 1 "Using the Calculator"</p> <p>Chapter 2 "Estimation and the Calculator"</p> <p>Chapter 3 "Using the Memory Keys"</p> <p>Appendix A,B,C,D, and E</p>	<p>John and his brother borrowed a truck from a friend to move furniture. They have to cover the cost of the truck by each paying \$10 a mile. They drove the truck 112 miles. They filled the truck's tank with 11.2 gallons of gas at \$1.119 per gallon. They also added a quart of oil at \$1.79. How much more should John and his brother each pay for the use of the truck?</p>	<ol style="list-style-type: none"> <li>1. Using the Calculator</li> </ol> <p>An Ordinary Everyday Tool</p> <p>Put Your Calculator to Work</p> <ol style="list-style-type: none"> <li>2. Estimation and the Calculator</li> </ol> <p>A Useful Guess</p> <ol style="list-style-type: none"> <li>3. Using the Memory Keys</li> </ol> <p>A Complex Situation</p> <p>Memory Keys</p>	<p>In this Lesson, all basic operations were performed using a basic calculator. Such a calculator is an invaluable tool.</p>	<p>A. A Teacher's View</p> <p>B. Digging a Well</p> <p>C. A Really Huge Bake Sale</p> <p>D. A Lot of Math</p> <p>E. Renting the Truck</p>

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Lesson 9 Percents You will <ul style="list-style-type: none"> <li>• solve percent problems;</li> <li>• solve sales tax and tip problems;</li> <li>• and solve credit problems.</li> </ul>	Chapter 1 "What's a Percent "A New Label" Chapter 2 "How Much Will I Save?" Chapter 3 "Cash or Credit?" Appendix A,B,C, D, and E	Maria wants to buy a CD 5-disc audio player. She has to consider its sale price with a 20% discount, a 6.5% sales tax, an offer of 18% credit, and a tight budget. Can she afford to buy it?	1. What's a Percent? 2. Discounts and Taxes 3. Credit Crunch	Formulas for Percents and Interest $\text{Percent} = \frac{\text{Amount}}{\text{Base}}$ $\text{Amount} = \text{Percent} \times \text{Base}$ $\text{Base} = \frac{\text{Amount}}{\text{Percent}}$ $\text{Interest} = \text{Principal} \times \text{Rate} \times \text{Time}$	A. Formulas B. Maria's Problem C. Percent of Leak-down D. Working for Uncle Pharaoh E. Tip Calculation
<b>MATH 2</b> Lesson 1 Money You will <ul style="list-style-type: none"> <li>• solve monetary estimation problems involving decimals;</li> <li>• estimate the solution to monetary problems using fractions;</li> <li>• and estimate the solution to problems involving percent.</li> </ul>	Chapter 1 "Making Numbers Simpler to Use" Addition, Subtraction, and Estimation Chapter 2 "Roughly Right" Chapter 3 "When Do We Estimate?" Working with Money	Harry and Mary need more money and have to decide whether they should offer day care to other families. How many children would Mary have to care for in order to make 5.00 an hour after taxes and expenses if she charges \$20.00 per child per day?	1. Estimating Money Using Decimals 2. Estimating Money Using Fractions 3. Estimating Money Using Percents	This Lesson explored the topic of making monetary estimates.  "The "Ballpark Situation"	A. Tomatoes and Onions B. Harry and Mary
Lesson 2 Measurement You will <ul style="list-style-type: none"> <li>• measure and convert common quantities using the English System;</li> <li>• measure and convert quantities using the Metric System;</li> </ul> and convert English measures to metric and visa a versa.	Chapter 1 "Measurement" Chapter 2 "The Metric System" Chapter 3 "Metric Rules of Thumb" Appendix A,B,C,D,E,F, and G	Harriet sent 100 pounds of rice to relatives in Sweden. How much tax will she have to pay if the Swedish government charges 14 Swedish kronor per kilogram?	1. The English System 2. The Metric System 3. Converting from One System to the Other	This Lesson looks at measurement of weight, of volume, of length, of temperature, and of time. The English and Metric Systems are converted and compared.	A. Charlemagne's Foot B. King Henry's Yard C. Did You Measure the Door? D. Square Feet and Pounds E. Milk Production F. Is That Metric or American? G. Harriet's Tax
Lesson 3 Coordinates You will <ul style="list-style-type: none"> <li>• add and subtract negative numbers;</li> <li>• locate points on a coordinate grid system and interpret points found on a coordinate grid system;</li> <li>• and solve problems involving time.</li> </ul>	Chapter 1 "Negative Numbers" Using Temperature, Number lines, and Checking Accounts. Chapter 2 "A Grid System" Using map locations, Number Lines, x axis and y axis, Measuring two dimensions, and Measuring three dimensions. Chapter 3 "Time: Past, Present and Future" "A (Less Than) Two Week Vacation" Subtracting Time Appendix A, B, and C	Mary has to arrange transport for an expensive computer from the dock (at sea level) to a research station which is on a mountain 10,000 feet high and 40 miles away. The computer cannot be subjected to a temperature change of more than 20 degrees per hour. If the temperature is 65 degrees on the dock and -15 degrees on the mountain, how slow should the truck go in kilometers per hour?	1. Is that Above or Below Zero? 2. North One Block, Then East Two Blocks 3. Row Nine, Seat Five, Next Thursday	Two ways to list Coordinate positions: Absolute mode and Incremental mode. Adding and Subtracting Time	A. Descartes B. Battleships C. Mary's Problem

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<p>Lesson 4 Geometry One You will</p> <ul style="list-style-type: none"> <li>• solve problems requiring the calculation of quadrilateral perimeters and areas;</li> <li>• calculate the area and perimeter of a right triangle;</li> <li>• and solve problems for two dimensional shapes requiring the value of pi.</li> </ul>	<p>Chapter 1 "The Study of Shapes" Review of ideas of Plane, Intersection, Straight Line, Line Segment, Parallel Lines and End Points, Degrees of Angles, Types of Angles, Right Angle, Polygons, Square of a Number, Area, Perimeter, and the Parallelogram. Chapter 2 "Types of Triangles and Names" Dimensions of a triangles (base, height or altitude), area and perimeter of a triangle and an odd shape, the Pythagorean Theorem, and Square Root Practice. Chapter 3. "Circular Reasoning" Shapes and the Circle, Radius, Diameter, Circumference, and Pi. Appendix A, B, and C</p>	<p>Bart McDonald needs to construct a new corral to hold his quickly multiplying herd. He has a budget of \$1,00. If new corral fence costs \$1.19 per foot, what is the largest part of an acre he can fence?</p>	<ol style="list-style-type: none"> <li>1. Four-Sided Objects</li> <li>2. Triangles</li> <li>3. The Value of Pi</li> </ol>	<p>This Lesson demonstrate the building blocks of plane geometry - the point, the line, and the plane. The basic methods used to calculate the area and perimeter of quadrilaterals and rectangles. Area and Perimeter Formulas Circles: the parts of a circle, the value of pi, the area and the circumference using pi(3.14).</p>	<ol style="list-style-type: none"> <li>A. Dimensions</li> <li>B. Only Three Inches of Scrap</li> <li>C. Old McDonald's Corral</li> </ol>
<p>Lesson 5 Geometry 2 You will</p> <ul style="list-style-type: none"> <li>• calculate the volume of rectangular solids;</li> <li>• calculate the volume of prisms and pyramids;</li> <li>• and calculate the volume of cylinders, cones, and spheres.</li> </ul>	<p>Chapter 1 "Shapes" Names of Three Dimensional Shapes (rectangular, cube, cylinder, cone, and pyramid), the volume and how to calculate two and three dimensional solids. Chapter 2 "Prisms" Right and Oblique Prisms (the height and volume), Pyramids (the height and volume). Chapter 3 "Cylinders" Right and Oblique Cylinders (height and volume). "Cones" Right and Oblique Cones (height and volume) "Spheres" (radius and volume) Appendix A and B</p>	<p>Pete the Packrat wants to determine how much hay he can store in his 24 feet by 30 feet barn and how much silage he can store in his solo. The silo has a diameter of 20 feet and a height of 100 feet to the base of the hemisphere located on its top.</p>	<ol style="list-style-type: none"> <li>1. Boxes</li> <li>2. Prisms and Pyramids</li> <li>3. Cylinders, Cones, and Spheres</li> </ol>	<p>In this Lesson, you calculated the volumes of various three-dimensional geometric figures, boxes, prisms, pyramids, cylinders, cones, and spheres.</p>	<ol style="list-style-type: none"> <li>A. What Makes a Pyramid a Pyramid?</li> <li>B. Pete the Packrat's Barn</li> </ol>
<p>Lesson 6 Consumer You will</p> <ul style="list-style-type: none"> <li>• solve problems involving comparisons;</li> <li>• solve consumer problems involving cost per unit;</li> <li>• and solve ratio problems.</li> </ul>		<p>Mary P. wants to make applesauce. She has 50 pounds of apples, and she can get about 1 quart of apples per pound. She can prepare 4 pints of applesauce from each two and a half quarts of apples. How many sticks of cinnamon will she need if she places one stick in each pint bottle of applesauce?</p>	<ol style="list-style-type: none"> <li>1. Making Comparisons</li> <li>2. Cost Per Unit</li> <li>3. Ratio</li> </ol>	<p>This Lesson covers consumer comparisons and estimating unit cost and ratio of items.</p>	<ol style="list-style-type: none"> <li>A. MPG</li> <li>B. Acres Per Cow</li> <li>C. That's Way Too Expensive</li> <li>D. How Much is Enough?</li> <li>E. Applesauce</li> </ol>

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<p>Lesson 7 Graphs</p> <p>You will</p> <ul style="list-style-type: none"> <li>• solve problems that involve the recognition of patterns;</li> <li>• identify three types of graphs;</li> <li>• and solve problems requiring the interpretation of graphs.</li> </ul>	<p>Chapter 1 "Patterns"</p> <p>Chapter 2 "Line Graphs" "Bar Graphs" "Circle Graphs"</p> <p>Chapter 3 "Graphs" Competitors</p>	<p>Kelly and Bill are saving for a down payment on a house. They have to modify their grocery budget in a way that saves money, but still recognizes the seasonal fluctuation in their eating habits.</p>	<p>1. Seeing the pattern</p> <p>2. Three kinds of Graphs</p> <p>3. Putting Graphs to Work</p>	<p>This Lesson looks at patterns, what makes a pattern and how to recognize a pattern.</p> <p>Three types of bar, line, and circle graphs.</p>	<p>A. Moslem Art</p> <p>B. Handshakes</p> <p>C. Dow Jones</p> <p>D. Patterns in Nature</p> <p>E. A Pattern in a Restaurant</p> <p>F. Kelly and Bill's Food Budget</p>
<p>Lesson 8 Using Data</p> <p>You will</p> <ul style="list-style-type: none"> <li>• interpret data using averages;</li> <li>• determine whether samples are fair representations of the total from which they are drawn;</li> <li>• and identify misleading presentations of data</li> </ul>	<p>Chapter 1 "Data"</p> <p>"What's to be Done With Data?"</p> <p>Chapter 2 "Sampling"</p> <p>Chapter 3 "Deceptive Data"</p> <p>What/Who are we talking about?</p> <p>Read Carefully</p> <p>Three Kinds of Averages</p> <p>"Deceptive Presentation"</p> <p>Appendix A, B, C, and D</p>	<p>Jim peddles apples downtown. He knows there are always some apples in every box he buys that he cannot sell for \$1 apiece. Whenever he purchases a box for \$35, he randomly samples 25 apples. If there are no more than 3 bad apples, he can make a good profit. Should he purchase a lower quality box of apples for \$31 if he finds 6 bad apples in his 25-apple sample?</p>	<p>1. Averages</p> <p>2. Sampling</p> <p>3. Misleading Numbers</p>	<p>This Lesson examines data. Data involves numbers and relationships. What's an average? (One simple tool to analyze data.) Is there a Law of Averages? How do we calculate the mean? What's a sample? (Margin of error, Random and Representative, and Not Biased) Three kinds of averages (Arithmetic Mean, Median, and the Mode) Is the data skewed?</p>	<p>a. Baseball Averages</p> <p>B. Soil Samples</p> <p>C. Skulls of Columbus</p> <p>D. Jim's Apples</p>
<p>Lesson 9 Statistics</p> <p>You will</p> <ul style="list-style-type: none"> <li>• express probability as a fraction or decimal;</li> <li>• calculate probability in simple games of chance;</li> <li>• and solve problems involving probability</li> </ul>	<p>Chapter 1 "Probability"</p> <p>"Likelihood vs. Certainty"</p> <p>"A Simple Principle"</p> <p>Chapter 2 "Probability II"</p> <p>"There's a Pattern Here"</p> <p>Chapter 3 "Chances Are ..."</p>	<p>Michele is purchasing a dehumidifier to keep her basement dry. The dehumidifier costs \$350. It comes with a one-year warranty and an additional two-year extension for only \$75. The worst thing that could happen is that the condenser could break and cost \$200 to fix. The probability it will break is .01 the first year, .04 the second year and .06 the third year. Should she pay the extra \$75 for the extended two-year warranty?</p>	<p>1. Probability</p> <p>2. Simple Games of Chance</p> <p>C. Problems Involving Probability</p>	<p>This Lesson explains Probability (as a fraction and as a decimal)</p> <p>Problem Solving Strategy:</p> <ul style="list-style-type: none"> <li>• Draw a Picture</li> <li>• Make a Table or a List</li> <li>• Solve a Simpler Problem</li> </ul>	<p>A. Shared Birthdays</p> <p>B. What about an Extended Warranty?</p>

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<p><b>MATH 3</b> Lesson 1 Fractions 1 You will</p> <ul style="list-style-type: none"> <li>• write fractions;</li> <li>• find fractions on number lines;</li> <li>• generate fraction families;</li> <li>• add or subtract fractions;</li> <li>• and add or subtract mixed numbers.</li> </ul>	<p>Math teachers Frank and David work with fraction families, number lines, and least common denominators. Martha, Sue, Bill, and Todd use fractions for everyday problems.</p>		<p>1. Numerators, Denominators, and Rational Number Families 2. Adding and Subtracting Fractions 3. Fraction Word Problems</p>	<p>Terminology:</p> <ul style="list-style-type: none"> <li>• common denominator</li> <li>• denominator</li> <li>• equivalent fractions</li> <li>• infinity</li> <li>• numerator</li> <li>• rational number family</li> <li>• common multiple</li> <li>• factor</li> <li>• least common multiple</li> <li>• multiple of a given number</li> <li>• reducing a fraction to lowest terms</li> <li>• improper fraction</li> <li>• mixed number</li> <li>• simplify</li> </ul>	
<p>Lesson 2 Fractions2 You will</p> <ul style="list-style-type: none"> <li>• learn a shortcut for adding fractions with numerators of 1;</li> <li>• add fractions with unlike denominators;</li> <li>• subtract common fractions;</li> <li>• and use the general case method.</li> </ul>	<p>Martha learns an alternative way to add certain kinds of fractions. She becomes a “number detective” to add and subtract.</p>		<p>1. Being a Number Detective 2. Developing a Rule for Adding Fractions 3. Subtracting Fractions 4. The General Case Method</p>	<p>Remember:</p> <p>1. Find a common denominator by multiplying the original denominators together. 2. Find the numerator by cross multiplying the fractions and adding the products together.</p> <p>Addition Formula:  <math display="block">\frac{A}{B} + \frac{C}{D} = \frac{(AD) + (CB)}{BD}</math> </p> <p>Subtraction Formula:  <math display="block">\frac{A}{B} - \frac{C}{D} = \frac{(AD) - (CB)}{BD}</math> </p>	
<p>Lesson 3 Fraction 3 You will</p> <ul style="list-style-type: none"> <li>• interpret number lines;</li> <li>• convert improper fractions to mixed numbers;</li> <li>• convert mixed numbers to improper fractions;</li> <li>• regroup whole numbers and mixed numbers;</li> <li>• estimate the sum of mixed numbers</li> <li>• add and subtract mixed numbers;</li> <li>• and compute answers to real-life problems.</li> </ul>	<p>Todd and David discuss infinity. They explore math in real-life situations.</p>		<p>1. Another Look at the Number line 2. Estimating, Regrouping, and Adding and Subtraction Mixed Numbers 3. Using Mixed Numbers in Real Life Situations</p>	<p>Terminology:</p> <ul style="list-style-type: none"> <li>• inverse</li> <li>• improper fraction</li> <li>• mixed number</li> <li>• negative numbers</li> <li>• number line</li> <li>• regrouping</li> </ul> <p>The following words indicate subtraction:  more than      compared to  less than      greater than  how much is left</p> <p>addition:  how much altogether  combined  total</p>	

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<p>Lesson 4 Fraction 4 You will</p> <ul style="list-style-type: none"> <li>understand fractions as parts of a whole, as division problems, and ratios;</li> <li>learn another way to add and subtract mixed numbers;</li> <li>and find the circumference of a circle using the ratio pi.</li> </ul>	<p>Todd, Bill, and Sue review ways of understanding fractions. Martha discovers another way to add and subtract mixed numbers. David explains pi and its uses.</p>		<ol style="list-style-type: none"> <li>Three Ways of Looking at Fractions</li> <li>Martha's Test</li> <li>Pi</li> </ol>	<p>Three different ways to look at fractions:  1. a part of a whole  2. a division problem  3. a ratio  Circumference Formula:  <math>C = \pi \times D</math>  The circumference of any circle divided by its diameter always equals pi.  <math>\pi = \frac{22}{7}</math> or 3.1416</p>	
<p>Lesson 5 Fraction 5 You will</p> <ul style="list-style-type: none"> <li>identify qualities of multiplication and division;</li> <li>multiply and divide one fraction by another;</li> <li>multiply and divide a whole number by a fraction;</li> <li>multiply and divide by mixed numbers;</li> <li>and solve word problems.</li> </ul>	<p>David and Frank explain how multiplication, division, addition, and subtraction are related. They teach basic rules for multiplying and dividing with fractions and mixed numbers. Bill and Todd apply the rules to everyday problems.</p>		<ol style="list-style-type: none"> <li>Basics of Multiplication and Division</li> <li>Multiplication and Division of Fractions</li> <li>Real - Life Problems</li> </ol>	<p>Simple Rules:</p> <ul style="list-style-type: none"> <li>To divide a fraction, invert the divisor and multiply.</li> <li>To multiply fraction, multiply the numerators together, then the denominators</li> </ul> <p>Terminology:  Additive Quality  Dividend  Divisor  Multiplier  Multiplicand  Invert  Inverse Operations  Product  Quotient</p>	
<p>Lesson 6 Fractions 6 You will</p> <ul style="list-style-type: none"> <li>simplify working with fractions by using cancellation;</li> <li>learn several ways to multiply and divide fractions; identify the reciprocal of a number;</li> <li>and simplify compound fractions by using reciprocals.</li> </ul>	<p>Martha and David show how cancellation works. Frank uses different methods to multiply and divide fractions. He shows how to use reciprocals to simplify compound fractions.</p>		<ol style="list-style-type: none"> <li>Cancellation</li> <li>Three Ways to Multiply Fractions</li> <li>Thinking Intuitively</li> </ol>	<p>This Lesson demonstrates:  Using the "Trade the Numerators" Technique  3 Ways to solve a multiplication of fractions Problems:  1. Multiply across and reduce the answer.  2. Cancel before multiplying.  3. Trade numerators and simplify before multiplying.  2 Ways to solve division problems  1. Divide straight across.  2. Make the fractions into a compound fraction, find an equivalent fraction in the compound fraction's family that can be reduced, and reduce it to find the answer.</p>	

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<p>Lesson 7 Decimals You will</p> <ul style="list-style-type: none"> <li>express a quantity as a decimal;</li> <li>express a decimal as a fraction</li> <li>add, subtract, multiply, and divide decimals;</li> <li>interpret pie, circle, line, and bar graphs;</li> <li>and use graphs to find information</li> </ul>	<p>Frank introduces decimals. Martha, Sue, Bill, and Todd perform basic operations with decimals. Frank explains that graphs show relationships among numbers that are important in real - life -- budgets, sales, figures, etc.</p>		<ol style="list-style-type: none"> <li>Decimal Basics</li> <li>Operations with decimals</li> <li>Graphs</li> </ol>	<p>Terminology: Annexing zero decimal fractions decimal point understood power of ten place value percent axis graph horizontal or vertical axis increment</p>	
<p>Lesson 8 Proportions You will</p> <ul style="list-style-type: none"> <li>determine when fractions are equivalent;</li> <li>convert fractions to decimals and decimals to fractions;</li> <li>convert decimals to percents and percents to decimals;</li> <li>and solve for unknowns in problems involving the basic operations.</li> </ul>	<p>David and Martha explore ratio and proportion. Martha helps a neighbor's daughter convert numbers to fractions, decimals, and percents. Martha, Bill, Sue, and Todd solve for unknowns in problems with addition, subtraction, multiplication, and division.</p>		<ol style="list-style-type: none"> <li>Ratio and Proportion</li> <li>From Fraction to decimal to Percent</li> <li>Into the Unknown</li> </ol>	<p>Terminology: balance colon inverse operations percent proportion ratio simplify Three quick and easy methods: 1. To convert a fraction to a decimal, divide the denominator into the numerator 2. To convert a decimal into a percent, move the decimal 2 spaces to the right and add the % sign. 3. To convert a percent to a decimal, move the decimal point 2 places to the left and drop the % sign.</p>	
<p>Lesson 9 Percents 1 You will</p> <ul style="list-style-type: none"> <li>learn the basic formula for finding percent;</li> <li>derive formulas for finding the part or whole when the percent is known;</li> <li>and use the percent formula to solve real - life problems.</li> </ul>	<p>Frank and Todd develop all the formulas needed to solve percent problems. Bill, Sue, Martha, and others use them to solve real - life problems.</p>		<ol style="list-style-type: none"> <li>Percent Basics</li> <li>Working out with Percents</li> <li>Finding the Whole</li> </ol>	<p>Percent Formula: <math>\frac{A}{B} = C</math> Part = Percent Whole Percent = <math>\frac{\text{Part}}{\text{Whole}}</math> Part = percent x whole Whole = <math>\frac{\text{Part}}{\text{Percent}}</math></p>	



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 10 Percents 2 You will</p> <ul style="list-style-type: none"> <li>• apply the formula for calculating property taxes;</li> <li>• apply the formula for calculating interest;</li> <li>• and apply formulas for discount and mark-up.</li> </ul>	<p>Bill, upset with his property tax, learns how the tax is figured. Martha learns the cost of borrowing money. Todd and Martha prepare for a sale at the paint store where Todd works.</p>		<p>1. Calculating Property Taxes 2. Calculating Interest Rates 3. Calculating Discount Rates  <math display="block">\text{mark-up rate} = \frac{\text{mark up}}{\text{cost price}}</math> <math display="block">\text{mark up} + \text{cost price} = \text{selling price}</math> <math display="block">\text{discount amount} = \text{discount rate} \times \text{selling price}</math> <math display="block">\text{sale price} = \text{selling price} - \text{discount amount}</math> <math display="block">\text{Interest} = \text{principal} \times \text{rate} \times \text{time}</math></p>	<p>Terminology:                      assessed evaluation (Value)                      market value                      margin                      taxable amount                      mark-up                      time                      real profit                      interest                      dividend                      principal                      rate                      cost price                      discount                      discount rate                      gross profit                      mark-up rate                      selling price</p>	
<p><b>PRE-ALGEBRA</b> Lesson 1 Signed #'s You will</p> <ul style="list-style-type: none"> <li>• identify signed numbers on the number line;</li> <li>• understand absolute value</li> <li>• add, subtract, multiply, and divide signed numbers;</li> <li>• solve for a missing term using inverse operations;</li> <li>• and check answers using substitution.</li> </ul>	<p>Frank shows daily uses of signed numbers. He and the class explore the rules for adding, subtracting, multiplying, and dividing signed numbers. Frank brings in a set of scales to discuss statements of equality (equations). He shows how to solve for unknown quantities using inverse operations.</p>		<p>1. Adding and Subtracting Signed Numbers 2. Multiplying and Dividing Signed Numbers 3. Inverse Operations and Substitution</p>	<p>Terminology:                      • algebra                      • absolute value                      • equal sign                      • equation                      • infinity                      • inverse operations                      • minus                      • negative numbers                      • number line                      Rule For Multiplying and Dividing                      1. If the number signs are the same, the answer is positive.                      2. If the number signs are different, the answer is negative.                      Inverse Operation and Order                      Operation                      Parentheses</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 2 Equations</p> <p>You will</p> <ul style="list-style-type: none"> <li>learn the appropriate sequence for performing operations;</li> <li>calculate square roots by estimating and averaging;</li> <li>simplify polynomials;</li> <li>solve for unknowns in simultaneous equations;</li> <li>solve a literal equation for a designated variable;</li> <li>and use the Pythagorean Theorem.</li> </ul>	<p>Frank, Todd, and Sue discuss the order in which operations should be performed. They solve simultaneous equations. Todd and Bill solve for designated variables in literal equations and substitute known values. Martha and Sue use the Pythagorean Theorem as one example of a literal equation.</p>		<ol style="list-style-type: none"> <li>SCMAD about Algebra</li> <li>Polynomials and Simultaneous Equations</li> <li>Solving Literal Equations</li> <li>The Pythagorean Theorem</li> </ol>	<p>S Simplify the parentheses.  C Compute powers and roots.  M Multiply or divide.  A Add or subtract.  D Divide the denominator.</p> <p>Terminology:  average      coefficient  constant      exponent  graph      polynomial  power      root  sequence of operations  simultaneous equations  term  formula      monomial  literal equation  requested unknown  hypotenuse  right angle  right triangle  Pythagorean Formula  <math>C^2 = A^2 + B^2</math>  Finding the Square Root of a Number</p>	
<p>Lesson 3 Geometry</p> <p>You will</p> <ul style="list-style-type: none"> <li>determine degrees in an angle;</li> <li>find lengths of sides of triangles using the Pythagorean Theorem and properties of similar triangles;</li> <li>determine if triangles are similar using the Pythagorean theorem and cross-multiplication;</li> <li>find the perimeter and area of geometric figures;</li> <li>and calculate the lengths and areas of polygons.</li> </ul>	<p>Todd and Bill discover geometry on the tennis court. Bill and Frank investigate geometric figures with a compass and straight edge. Frank and the class use simple formulas and intuition to see if their formulas for area are correct.</p>		<ol style="list-style-type: none"> <li>Triangles and Other Basic Geometric Shapes</li> <li>Finding Perimeter and Area</li> <li>Polygons</li> </ol>	<p>Terminology:  acute      altitude  angle      arc  area      base  circle      degrees  equilateral      hypotenuse  isosceles triangle      obtuse  parallelogram      parallel  polygon      Pythagoras  Pythagorean Theorem  rectangle      right angle  right triangle      similar  square      vertex  altitude      compass  equiangular      pi  quadrilateral      radius  rhombus      trapezoid  Area and Perimeter of geometric shapes</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 4 Measurement</p> <p>You will</p> <ul style="list-style-type: none"> <li>• convert one measure to another;</li> <li>• find unit values for various items;</li> <li>• solve problems involving different measures;</li> <li>• and compute perimeter, area, and volume for various objects.</li> </ul>	<p>Frank explains conversion tables and formulas. Nancy and Sue use proportion to compare prices. Todd and Bill compute the cost of Bill's house addition. Sue and Martha calculate the amount of beans they've canned. Sue and Martha calculate length and girth to stay within post office guidelines for packaging.</p>		<ol style="list-style-type: none"> <li>1. The Proportion Formula</li> <li>2. Converting Units of Measure</li> <li>3. Perimeter, Area, and Volume</li> </ol>	<p>Terminology:</p> <ul style="list-style-type: none"> <li>conversion</li> <li>cubic measures</li> <li>English System</li> <li>linear measure</li> <li>metric system</li> <li>proportion</li> <li>ratio</li> <li>unit value</li> <li>Borrowing and Regrouping</li> <li>simplify</li> <li>length and girth</li> </ul> <p>Formulas:</p> <ul style="list-style-type: none"> <li>perimeter = sum of the sides</li> <li>area = <math>l \times w</math></li> <li>volume = <math>l \times w \times h</math></li> </ul>	
<p>Lesson 5 Problems</p> <p>You will</p> <ul style="list-style-type: none"> <li>• translate word problems into algebraic statements;</li> <li>• substitute values in algebraic statements;</li> <li>• use a problem-solving technique to approach real-life math problems;</li> <li>• solve word problems involving more than one unknown.</li> </ul>	<p>Frank explain how to approach complicated problems involving math. He uses his technique with several kinds of problems, including one involving Todd's fish.</p>		<ol style="list-style-type: none"> <li>1. Solving Algebra Problems</li> <li>2. Solving Geometry Problems</li> <li>3. Solving Words Problems</li> </ol>	<p>Terminology:</p> <ul style="list-style-type: none"> <li>algebraic statement</li> <li>definition</li> <li>expression</li> <li>formula</li> <li>literal statement</li> <li>term</li> <li>variable</li> <li>definition</li> </ul> <p>The James:</p> <ol style="list-style-type: none"> <li>1. Build a mental picture.</li> <li>2. Assign the variables.</li> <li>3. Work with easy number first, then work it with more complicated numbers.</li> </ol> <p>Tools for Problem Solving</p> <ol style="list-style-type: none"> <li>1. Inverse operations</li> <li>2. Substitution</li> <li>3. The James</li> </ol>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p><b>ALGEBRA PART 1</b> Lesson 1 Introduction</p> <ul style="list-style-type: none"> <li>You will classify numbers into number sets;</li> <li>evaluate algebraic expressions;</li> <li>simplify algebraic expressions using the Commutative, associative, and distributive properties; and evaluate expressions containing more than one operational symbol.</li> </ul>	<p>Chapter 1 "Whole Numbers" "Integers" "Rational Numbers" "Irrational Numbers" Chapter 2 "Baseball Algebra" "More Baseball Algebra" Chapter 3 "The Properties of Expressions" Chapter 4 Order of Operations 1. Within Groupings 2. Exponents &amp; Radicals 3. Multiplication and Division 4. Addition and Subtraction "Review"</p>	<p>Working with algebraic expressions depends on knowing the characteristics of different sets of numbers. This Lesson explains some basic rules which will help you simplify and evaluate algebraic expressions. Simple algebraic expressions with a baseball theme illustrate these concepts.</p>	<p>The Language of Algebra</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Sets of Numbers</li> <li>Chapter 2 Algebraic Expressions</li> <li>Chapter 3 Algebraic Properties</li> <li>Chapter 4 Order of Operations</li> <li>Appendix</li> </ul>	<p>Sets of Numbers: classify numbers in one of these groups: natural numbers whole numbers integers rational numbers irrational numbers real numbers Terminology: Term Variable Like Terms Expressions Equations Factor Factoring A Common Factor The Greatest Common Factor Coefficient Evaluate Formula</p> <p>Properties of Algebra: Commutative Associative Distributive Grouping Symbols</p>	<p>Appendix A. Countdown to Gridlock B. No Magic in Mudville C. Big in Babylonia D. Pick a Number, Any Number</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 2 Exponents You Will</p> <ul style="list-style-type: none"> <li>• evaluate algebraic expressions using the power and product rules;</li> <li>• simplify and evaluate expressions using the quotient rule and negative exponents;</li> <li>• determine the meaning of roots and radicals;</li> <li>• and evaluate algebraic expressions involving rational exponents.</li> </ul>	<p>Chapter 1            "Where it All Starts"            "The Power Rule"            "The Product Rule"            Chapter 2            "Interested in Interest?"            "The Zero Power Rule"            "Negative Exponents"            Chapter 3            "The Square Root"            Simplified Radicals have these characteristics:</p> <ul style="list-style-type: none"> <li>• Factors in the radicand are not raised to a power greater than or equal to the index.</li> <li>• There are no fractions in the radicand.</li> <li>• The denominator does not contain a radical.</li> <li>• There are no common fractions between exponents in the radicand and the index of the radical.</li> <li>• All operations have been performed.</li> </ul> <p>"Solving the Case"            Chapter 4            "Another Way to Say Square Root"            "Predicting the Unpredictable"            "Valedictory"</p>	<p>Exponents are a form of mathematical shorthand. This Lesson explains the relationships used to evaluate expressions with positive and negative exponents and explores the inverse relationship between roots and radicals.</p>	<p>Exponents &amp; Radicals</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Exponents</li> <li>• Chapter 2 Exponents and Division</li> <li>• Chapter 3 Radicals</li> <li>• Chapter 4 Radical Exponents</li> <li>• Appendix</li> </ul>	<p>The Power Rule:  <math>(Bx)^y = Bxy</math>            The Product Rule:  <math>Bx \cdot By = Bx+y</math>            Terminology:            Base            Exponent            Power rule            Product Rule            Exponential Growth            Index            Radical            Radicand            Square Root            Rational Exponent            Integer Exponent            Compound Interest Formula:</p> <p>Quotient Rule:  <math>\frac{Bx}{By} = Bx-y</math>            The Zero Power Rule:  <math>B^0 = 1</math> when B does not = 0            Negative Exponent Rule:  <math>B^{-x} = \frac{1}{B^x}</math>            Square Root of Radical            Exponents  <math>B^{\frac{1}{x}} = x^{\frac{1}{B}}</math></p>	<p>Appendix            A. Tally Ho            B. Kits and Cats            C. Exponent Opponents            D. The Defense Never Rests</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 3 Polynomials You Will</p> <ul style="list-style-type: none"> <li>combine polynomials by addition or subtraction;</li> <li>multiply polynomials using the distributive property;</li> <li>factor a polynomial by extracting the greatest common factor of terms;</li> <li>extract binomial factors of trinomials;</li> <li>extract binomial factors of trinomials;</li> <li>and factor perfect square trinomials</li> </ul>	<p>Chapter 1 "What is it?"  "Polynomials At Work"  "Subtracting Polynomials"  Chapter 2  "The Distributive Property at Work"  "A Memory Aid"  "Polynomials Out and About"  Multiplying Polynomials steps:  1. Multiply each of the terms in the first polynomial times the entire second polynomial and add the products together.  2. Multiply each monomial and polynomial and then add all of the resulting terms together.  3. Simplify the terms.  4. Rearrange the terms in descending order.  5. Combine like terms.  Chapter 3 "GCF - The Greatest Common Factor"  Chapter 4 "The FOIL Method in Reverse"  "More Trinomial Factoring"  "A Review"  Chapter 5  "The Difference of Squares"  A quantity that is the difference of squares will factor into the sums of the square root times the difference of the square roots.  "Perfect Square Trinomials"  "Summary"</p>	<p>Polynomials are the building blocks in the creation of formulas. This Lesson explains how to perform basic operations on polynomials and factor special polynomials called trinomials. Examples include the use of polynomials in the search for extraterrestrial.</p>	<p>Factoring Polynomials</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Polynomials</li> <li>Chapter 2 Multiplying Polynomials</li> <li>Chapter 3 Factoring Polynomials</li> <li>Chapter 4 Factoring Trinomials</li> <li>Chapter 5 Factoring Special Case Polynomials</li> <li>Appendix</li> </ul>	<p>Terminology:  Monomial  Binomial  Polynomial  Like Terms  Arranging Polynomials  Adding Polynomials  Subtracting Polynomials  Coefficient  FOIL Method  Distributive Property  Multiplying Polynomials  Factor  Extract a factor  GCF Greatest Common Factor  Multiplying binomials to produce trinomials  Factoring Trinomials  Square  Difference of Squares  Perfect Square Trinomial  Adding Negative Quantities:  1. Ensure that the terms are arranged in descending order.  2. Find like terms to subtract, being careful to arrange them in the correct column.  3. Be careful about plus and minus signs.  The FOIL Technique:  First terms <math>(a+b)(c+d)</math>  Outer terms <math>(a+b)(c+d)</math>  Inner terms <math>(a+b)(c+d)</math>  Last terms <math>(a+b)(c+d)</math>  To Factor Trinomials:  1. Create framework  2. Factor first term  3. Factor last term  4. Try combinations  5. Use FOIL to check</p>	<p>Appendix  A. The Greeks Get Around  B. Behind the Screen  C. Say What?  D. A Trip to the Museum  E. Proving It</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 4 Linear Equations You will</p> <ul style="list-style-type: none"> <li>• solve linear equations;</li> <li>• solve linear equations containing decimals and fractions;</li> <li>• express word problems as equations and solve them;</li> <li>• express the relationships in proportion problems and solve them;</li> <li>• and express simple work problems as equations and solve them.</li> </ul>	<p>Chapter 1 "Maintaining a Balance" "Solving Complex Questions" Chapter 2 "The Process of Elimination" "Clearing Fractions" Clear Fractions With a Common Multiple of the Denominator Chapter 3 "Translating Reality" Converting Complicated Problems: 1. <b>Read</b> the problem carefully, sketching it out on paper if possible. 2. <b>Describe</b> the situation with numbers and variables. 3. <b>Create</b> an equation using those elements. 4. <b>Solve</b> the problem and check your answer. 5. <b>Interpret</b> your answer. Chapter 4 "Arranging Reality" "How Many Fish?" Chapter 5 "The Sewage Plant Problem" "The Sewage Plant Solution" "Sol's Conclusion"</p>	<p>Equations with only one variable raised only to the first power are called linear equations. This Lesson explains how to solve these equations and how to express real world problems as linear equations. Examples include counting a fish population and solving a sewage treatment work problem.</p>	<p>Linear Equations</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Basic Principles of Equations</li> <li>• Chapter 2 Fractional Equations</li> <li>• Chapter 3 Word Problems</li> <li>• Chapter 4 Proportion Problems</li> <li>• Chapter 5 Work Problems</li> <li>• Appendix</li> </ul>	<p>Terminology: Equation Linear Equation Solution Solve Addition Property of Equality Multiplication Property of Equality Checking Solutions Eliminating Decimals Clearing Fractions Least Common Multiple Ratio Proportion Rate Work Problem 4 Steps to Solving a Linear Equation:  <ul style="list-style-type: none"> <li>• Clear Parentheses</li> <li>• Combine Like Terms</li> <li>• Get Variable on One Side of the Equation</li> <li>• Isolate the Variable</li> </ul>           Translating a Problem:            1. Identify the relationship.            2. Translate it into numbers and variables.            3. Convert them into an algebraic equation.</p>	<p>Appendix A. Playing False B. All In Your Head C. Getting It Backwards D. The Gods Must Be Algebra Crazy E. The Naked Truth</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 5 Complex Numbers You will</p> <ul style="list-style-type: none"> <li>perform basic operations with imaginary numbers;</li> <li>recognize complex numbers in the complex plane;</li> <li>add and subtract complex numbers</li> <li>and multiply and divide complex numbers.</li> </ul>	<p>Chapter 1 "Why Imaginary Numbers?" "Defining i" "Real and Imaginary Numbers" Chapter 2 "Creating a Plane" "Introducing Complex Numbers" "A Fractal is Worth a Thousand Words" Chapter 3 "Starting with Addition" "Moving To Subtraction" Chapter 4 "Moving to Multiplication" "Introducing Complex Conjugates" "Moving To Division" "Making the Unimaginable Happen"</p>	<p>Imaginary numbers play an important role in algebra. This Lesson explains imaginary numbers and shows how to work with them using some familiar rules as well as some new rules. This Lesson also illustrates basic operations with complex numbers..numbers with both real and imaginary components. Examples include fractal imagery and problems in the field of aeronautical engineering.</p>	<p>Complex Numbers</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Using Imaginary Numbers</li> <li>Chapter 2 Using Complex Numbers</li> <li>Chapter 3 Adding and Subtracting Complex Numbers</li> <li>Chapter 4 Multiplying and Dividing Complex Numbers</li> <li>Appendix</li> </ul>	<p>Terminology: axis imaginary number real number simplifying the power of i i Complex Number Coordinate Origin Complex Plane Fractal Sets of Numbers Inverse Operations Commutative Property Associative Property Distributive Property Adding Complex Numbers Subtracting Complex #'s Complex Conjugates Component Coefficient FOIL Multiplying Complex #'s Multiplying Complex Conjugates Dividing Complex #'s Four Basic Powers of i: i<sup>1</sup> = 1 i<sup>2</sup> = -1 i<sup>3</sup> = -i i<sup>4</sup> = 1 = i<sup>0</sup></p>	<p>Appendix A. Refusing To Go Negative B. Taking A Gamble C. With a Little Help D. A Complex Proof</p>
<p>Lesson 6 Quadratics You will</p> <ul style="list-style-type: none"> <li>solve simple quadratic equations by trial and error;</li> <li>factor the difference of two squares to solve quadratic equations;</li> <li>factor perfect trinomial squares;</li> <li>solve quadratic equations by completing the square;</li> <li>and solve quadratic equations by using the quadratic formula.</li> </ul>	<p>Chapter 1 "Quadratic Equations" "Acid Rain" "Take Two Tablets and Some Algebra" "Zero Product Property" "Is This Reasonable?" "Review" Chapter 2 "On Target" Chapter 3 "Perfect Square Trinomials" Chapter 4 "Think We Can Land" "Sol Checks his Work" Chapter 5 "The Quadratic Formula" "Summary"</p>	<p>Quadratic equations are second degree equations written in one variable. This Lesson explains various techniques that will help you factor and solve quadratic equations. Most of the examples follow Sol as he uses algebra to complete a secret mission..</p>	<p>Quadratic Equations</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Trial and Error Factoring</li> <li>Chapter 2 Difference of Two Squares</li> <li>Chapter 3 Perfect Square Trinomials</li> <li>Chapter 4 Completing the Square</li> <li>Chapter 5 Quadratic Formula</li> <li>Appendix</li> </ul>	<p>Terminology: Coefficient Degree Descending Order Linear Equation Polynomial Binomial Quadratic Equation Zero Product Property Solve By Factoring Difference of Two Squares Steps for solving <math>x^2 - k^2 = 0</math> Perfect Square Trinomial Double Root Steps for solving perfect square trinomials that equal zero Completing the Square Linear Coefficient Quadratic Formula</p>	<p>Appendix A. Fair and Square B. Babylonian Breakthroughs C. Have I Got a Deal For You! D. The House of Wisdom E. Completing the Square</p>



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 7 Inequalities</p> <p>You will</p> <ul style="list-style-type: none"> <li>• solve problems of simple inequalities;</li> <li>• solve real-world problems involving inequalities;</li> <li>• solve quadratic inequalities;</li> <li>• and solve rational inequalities.</li> </ul>	<p>Chapter 1 "Greater Than or Less Than" "Working With Inequalities"</p> <p>Chapter 2 "Postal Service" "Speed Limit"</p> <p>Chapter 3 "How Do They Make Tasty Pizza?" "Quadratic Inequalities"</p> <p>Chapter 4 "Rational Inequalities" "A Messy Place"</p>	<p>Mathematicians have developed a system to help us express inequalities. This Lesson explains how inequalities provide a way to solve problems where the variables do not "equal" specific values. Examples include managing postal routes and finding the perfect combination of ingredients for a pizza recipe.</p>	<p>Inequalities</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Introducing Inequalities</li> <li>• Chapter 2 Solving Real World Problems Using Inequalities</li> <li>• Chapter 3 Solving Quadratic Inequalities</li> <li>• Chapter 4 Solving Rational Inequalities</li> <li>• Appendix</li> </ul>	<p>Terminology: Inequality Open Set Closed Set Multiplication Properties of Inequalities Addition Property of Inequalities Solution Solution Set Inequality Symbols Completing the Square Descending Order Difference of Two Squares Standard Form of a Quadratic Equation Quadratic Inequality Solving a Quadratic Inequality Sign Graph Quadratic Formula Rational Inequality Solving Rational Inequalities Properties of Inequalities: 1. If <math>a &lt; b</math>, then <math>a + c &lt; b + c</math> 2. If <math>a, b</math>, and if <math>c &gt; 0</math>, then <math>ac &lt; bc</math> 3. If <math>a &lt; b</math>, and if <math>c &lt; 0</math>, then <math>ac &gt; bc</math> 4. If <math>a &lt; b</math> and <math>b &lt; c</math>, then <math>a &lt; c</math></p>	<p>Appendix A. Remembering Pi B. Stop the Presses! C. The Amateur D. Last But Not Least</p>
<p>Lesson 8 Absolute Value</p> <p>You will</p> <ul style="list-style-type: none"> <li>• interpret basic absolute value expressions;</li> <li>• solve absolute value expressions;</li> <li>• solve absolute value inequalities;</li> <li>• and use the basic algebra concepts you have learned to solve real-world problems.</li> </ul>	<p>Chapter 1 "Beginning the Basics" "Looking at Longer Expressions" "Applying Absolute Value" "A More Precise Definition"</p> <p>Chapter 2 "Defining the Rules" "Applying the Rules"</p> <p>Chapter 3 "Solving Less-Than Inequalities" "Solving Greater - Than Inequalities" "Solving General Inequalities" "Solving Longer Inequalities"</p> <p>Chapter 4 "A Lofty Problem" "A Tantalizing Problem"</p>	<p>The absolute value of any real number is the distance between that number and zero on a number line. This Lesson explains how to solve problems involving absolute value inequalities and reviews the algebra you have learned in this and all of the previous Lessons. Examples include evaluating blood pressure, controlling potato chip quality, and calculating the altitude of a glider.</p>	<p>Absolute Value and Review</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Absolute Value Introduction</li> <li>• Chapter 2 Absolute Value Equations</li> <li>• Chapter 3 Absolute Value Inequalities</li> <li>• Chapter 4 Real-World Problems</li> <li>• Appendix</li> </ul>	<p>Terminology: Absolute Value Definitions of Absolute Value If and Only If Statement Simplifying Absolute Value Equations Solving Absolute Value Equations Absolute Value Inequalities Union of Sets Intersection of sets Rules of Absolute Value Inequalities Solving <math> a  &lt; b</math> Solving <math> a  &gt; b</math> Absolute Value Expression Rules: If <math>a \geq 0</math>, then <math> a  = a</math> If <math>a &lt; 0</math>, then <math> a  = -a</math> Rules for Equations: 1. <math> 1  = -b</math> if <math>a = b</math> or <math>a = -b</math> <math> a  =  b </math> if <math>a = b</math> or <math>a = -b</math> Rules for Inequalities: 1. If <math>b \geq 0</math>, <math> a  &lt; b</math> if and only if <math>-b &lt; a &lt; b</math> 2. <math> a  &gt; b</math> if and only if <math>a &lt; -b</math> or <math>a &gt; b</math></p>	<p>Appendix A. Dueling Professors B. Getting Abstract C. Around The World D. Just a Little Behind</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 9 Linear Relations</p> <p>You will</p> <ul style="list-style-type: none"> <li>interpret equations and their graphs;</li> <li>develop a linear equation using a graph;</li> <li>interpret graphs and their linear equations;</li> <li>write equations from ordered pairs and determine the distance between two points.</li> </ul>	<p>Chapter 1</p> <p>“Taxi Cab Ride”</p> <p>“Linear Relations”</p> <p>“Changes Over Time”</p> <p>Chapter 2</p> <p>“Hull Speed”</p> <p>“I Sailed on the Slope John B?”</p> <p>“Y-Intercept”</p> <p>“Crickets”</p> <p>Chapter 3</p> <p>“Which Cab”</p> <p>“Jack’s Taxi”</p> <p>“Strange Cab Companies”</p> <p>“Negative Reciprocals”</p> <p>Chapter 4</p> <p>“A Travelin’ Man”</p> <p>“The Distance Between Two Points”</p> <p>“Summary”</p>	<p>Linear relations occur when two quantities vary by a constant ratio. This Lesson shows how these relationships can be displayed as straight-line graphs and explains how to interpret and analyze relations. Examples include taxi rates, sail boat hull speed, and conversion from Fahrenheit to Celsius temperature scales.</p>	<p>Linear Relations</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Linear Relationships</li> <li>Chapter 2 Equations From Graphs</li> <li>Chapter 3 Interpreting Linear Graphs</li> <li>Chapter 4 Equations From Ordered Pairs</li> <li>Appendix</li> </ul>	<p>Terminology:</p> <p>Linear Relations</p> <p>Ordered Pairs</p> <p>Line Graph</p> <p>Coordinate plane</p> <p>Origin</p> <p>Axis</p> <p>Slope</p> <p>Intercepts</p> <p>Slope-Intercept form of a Line</p> <p>Formula of a Slope</p> <p>Negative Reciprocal</p> <p>Undefined Slope</p> <p>Vertical</p> <p>Perpendicular</p> <p>Parallel</p> <p>Horizontal</p> <p>Determining the Equation</p> <p>Celsius</p> <p>Fahrenheit</p> <p>Point-slope form</p> <p>Distance Formula</p> <p>Pythagorean Theorem</p>	<p>Appendix</p> <p>A. X’s, Y’s, and ZZZ’s</p> <p>B. End of the Line</p> <p>C. I Say Fahrenheit, You Say Celsius</p> <p>D. Metric Moves</p>
<p>Lesson 10 Conic Part 1</p> <p>You will</p> <ul style="list-style-type: none"> <li>determine the radius and coordinates of a circle given an equation of a circle;</li> <li>identify the characteristics of parabolas;</li> <li>and interpret graphs of parabolas using the general form of the equation for the parabola.</li> </ul>	<p>Chapter 1</p> <p>“Circles”</p> <p>“Earthquake”</p> <p>“Circle Equation”</p> <p>“Translated Circles”</p> <p>“General Form”</p> <p>“Three Dimensional Relatives”</p> <p>Chapter 2</p> <p>“Wax, Pins, and String”</p> <p>“Equation of a Parabolas”</p> <p>“Parabolas Everywhere”</p> <p>Chapter 3</p> <p>“General Form of the Equations”</p> <p>“A Tougher Conversion”</p> <p>“Horizontal Axis of Symmetry”</p>	<p>Circles and parabolas are conic sections with characteristics that can be described algebraically. This Lesson defines the characteristics of these shapes and demonstrates the relationship between a shape’s graph and its equation. Examples include finding the epicenter of an earthquake, the use of parabolic dishes in communications, and problems in civil engineering.</p>	<p>Circles and Parabolas</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Circles</li> <li>Chapter 2 Parabolas</li> <li>Chapter 3 Parabolas in the General Form</li> <li>Appendix</li> </ul>	<p>Terminology:</p> <p>Circle</p> <p>Radius</p> <p>Center</p> <p>Conic Sections</p> <p>Center-radius Form</p> <p>General Form of the Equation for a Circle</p> <p>Distance Formula</p> <p>Direction</p> <p>Focus</p> <p>Vertex</p> <p>Axis of Symmetry</p> <p>Parabola</p> <p>Interpretations of a</p> <p>Interpretations of h</p> <p>Interpretations of k</p> <p>General Form of the Equation for a Parabola</p> <p><math>y = a(x-h)^2 + k</math></p> <p>General Form of a Horizontal Parabola</p> <p><math>x = a(y-k)^2 + h</math></p>	<p>Appendix</p> <p>A. Apollo’s Plague</p> <p>B. Drawing the Line</p> <p>C. Going Round in Circles</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 11 Conics Part 2 You Will</p> <ul style="list-style-type: none"> <li>determine the equation of an ellipse;</li> <li>graph an ellipse when given its equation;</li> <li>determine the characteristics of hyperbolas when using their graphs or equations.</li> </ul>	<p>Chapter 1 "Inscribing and Describing an Ellipse" Chapter 2 "Drawing an Ellipse" "Reflecting on Ellipses" Chapter 3 "Hyperbolas" "Transverse Axis" "Useful Hyperbolas" "A Little Algebra" "Graphing Asymptotes" "LORAN"</p>	<p>Ellipses and hyperbolas are conic sections with characteristics that can be described algebraically. This Lesson defines the characteristics of these shapes and demonstrates the relationship between a shape's graph and its equation. Examples include surgery with an elliptical lithotripter and a navigation with LORAN.</p>	<p>Ellipse and Hyperbola</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Ellipse</li> <li>Chapter 2 Graphing Ellipses</li> <li>Chapter 3 Hyperbolas</li> <li>Appendix</li> </ul>	<p>Terminology: Ellipse Foci Center Major Axis Minor Axis Semi-major axis Semi-minor axis Vertices Pythagorean Theorem Elliptical Orbit Hyperbola Asymptotes Fundamental Rectangle Transverse Axis Ellipse Equation: <math display="block">\frac{(x-h)^2}{a^2} = \frac{(y-k)^2}{b^2} = 1</math></p>	<p>Appendix A. A Revolting Development B. Into Orbit C. Taking Time</p>
<p><b>ALGEBRA PART 2</b> Lesson 1 Functions You Will</p> <ul style="list-style-type: none"> <li>determine whether a given relationship is a function or not;</li> <li>represent a function by using ordered pairs and graphs;</li> <li>determine range values for given values in the domain using the equation of a function;</li> <li>and identify four types of functions linear, step, absolute value, and quadratic.</li> </ul>	<p>Chapter 1 "Entering the "Function Zone" "What Does f(x) Mean?" "Recognizing What's Not a Function" "LOGO: An Application of Functions" Chapter 2 "Ordered Pairs and Graphs" "Vertical Line Test" Chapter 3 "Representing Functions with Equations" "Functions in the Real World" Chapter 4 "Absolute Value and Step Functions" "Back to the Party"</p>	<p>A function is a deterministic relationship. This Lesson explains that functions performed on valid inputs will always produce the same output. Examples of functions include a computer program called LOGO, postage rates, secret codes, and even pizzas.</p>	<p>Functions</p> <ul style="list-style-type: none"> <li>Introductions</li> <li>Chapter 1 Functions</li> <li>Chapter 2 Ordered Pairs and Graphs</li> <li>Chapter 3 Domains, Ranges, and Equations</li> <li>Chapter 4 Types of Functions</li> <li>Appendix</li> </ul>	<p>Terminology: Deterministic Relation Function f(x) Domain Input Output Relation Range Coordinate Plane Linear Function Ordered Pair Parabola Vertical Line Test graph Equation Graphing Domain and Range Value Constraints on the Domain and Range <math>f(x) = x + 2</math> Absolute Value Function Step Function Quadratic Function Linear Function Important Point: In order for a relation to be a Function, each input value must always have One and Only One output value. The Absolute Value Function: <math>f(x) =  x </math></p>	<p>Appendix A. A Striking Function B. In the Mean Time C. Math in Motion D. A Calculated Code</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 2 Composition You will</p> <ul style="list-style-type: none"> <li>combine functions arithmetically to obtain new functions;</li> <li>perform a composition of functions;</li> <li>find the inverse of a function;</li> <li>and identify that do not have an inverse.</li> </ul>	<p>Chapter 1 "The Gross National Product" "The Other Three Operations"</p> <p>Chapter 2 "Composition of Functions" "A Real-World Example" "Scuba Diving Safety"</p> <p>Chapter 3 "Introduction to Inverse Functions" "Two Examples of Inverse Functions" "Secret Codes"</p> <p>Chapter 4 "One-to One Functions" "Horizontal Line Test" "Summary"</p> <p>Notation for Addition of Functions: <math>(f + g)(x) = f(x) + g(x)</math></p> <p>Notation for Subtraction of Functions: <math>(f-g)(x) = f(x) - g(x)</math></p> <p>Notation for Multiplication of Functions: <math>(fg)(x) = f(x) \times g(x)</math></p> <p>Notation for the Division of Functions: <math>(\frac{f}{g})(x) = \frac{f(x)}{g(x)}</math></p>	<p>Functions can be combined in many different ways to make new functions. This Lesson explains how functions are combined arithmetically and how one function may be applied to the output of another function. It also discusses how inverse functions can be mapped backward from a range value to a specific domain value. Examples include composition of functions that relate depth to dissolved gases in the blood and the encryption of codes.</p>	<p>Composition &amp; Inverse Functions</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 The Algebra of Functions</li> <li>Chapter 2 Composition of Functions</li> <li>Chapter 3 Inverse Functions</li> <li>Chapter 4 One-to-One Functions</li> <li>Appendix</li> </ul>	<p>Terminology: Dependent Variable Division by Zero Independent Variable Undefined Restriction of Domain Subtracting Functions Adding Functions Multiplying Functions Dividing Functions Composition of Functions Combinative Property Circle Algorithm Decoding ASCII Decryption Encoding Encryption Inverse Function Horizontal Line Test One-to-One Function Step Function Quadratic Function</p>	<p>Appendix A. What's on the Tube? B. A Mixed Bag C. Taking a Little Latitude D. And Back Again</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 3 Variation You will</p> <ul style="list-style-type: none"> <li>recognize and use direct variation in solving problems;</li> <li>recognize and use inverse relationships in solving problems;</li> <li>and solve problems involving combined and joint variation.</li> </ul>	<p>Chapter 1 "Bicycle Gears: An Example" "Time is Distance" "Miles per Hour" Chapter 2 "What are F-Stops Anyway?" "Camera Lens Aperture" "Working Backwards" Chapter 3 "An Illuminating Example" "Stress and Strain" "Simple Interest: Joint Variation" "How Do We Use This Stuff" Area of a Circle: <math>A = \pi(d)^2</math> Volume of a Sphere: <math>V = \frac{4\pi(d)^3}{3}</math> Stress Formula: stress = <math>\frac{\text{load}}{\text{area}}</math></p>	<p>Variation is the concept that allows us to express relationships between quantities. This Lesson explains that if the quotient of two variables is constant, one is directly proportionate to the other. With inverse variation, one variable increases as the other decreases proportionately. In combined variation, a variable is dependent on more than just one other variable. Examples include gear ratios and photographic functions.</p>	<p>Variation</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Direct Variation</li> <li>Chapter 2 Inverse Variation</li> <li>Chapter 3 Combined Variation</li> <li>Appendix</li> </ul>	<p>Terminology: Variation Direct Variation Constant of Proportionality Ratio Speed Rotation Circumference Linear Velocity Inverse Variation Focal Length Aperture F-stop Nonlinear Direct Variation Joint Variation Simple Interest Combined Variation Stress Expressing Direct Variation: <math>y = kx</math> Expressing Inverse Variation: <math>y = \frac{k}{x}</math> Expressing Nonlinear Direct Variation: <math>y = kx</math> to the n power Expressing Joint Variation: <math>y = kxz</math></p>	<p>Appendix A. A Bumpy Beginning B. Say "Cheese" C. In Over His Head</p>
<p>Lesson 4 Polynomials You Will</p> <ul style="list-style-type: none"> <li>identify polynomial functions by their general features and degrees;</li> <li>find the zero values of polynomial functions by factoring and using the factor theorem;</li> <li>interpret graphs of polynomials;</li> <li>and identify the number of zero values in polynomial functions using the Fundamental Theorem of Algebra.</li> </ul>	<p>Chapter 1 "Polynomial Function Forms" "Curve Fitting" "Graphing Patterns in the Real World" "What is Extrapolation" Chapter 2 "Resolving The Problem" Chapter 3 "Sketching Graphs of Polynomials" "Predicting Outcomes" Chapter 4 "Fundamental Theorem of Algebra" The Factor Theorem: If <math>f(r) = 0</math> then <math>(x-r)</math> is a factor of the polynomial <math>f(x)</math>. If <math>(x-r)</math> is a factor of the polynomial <math>f(x)</math>, then <math>f(r) = 0</math>. Complex Solution: If <math>a+bi</math> is a zero value, then its complex conjugate <math>a-bi</math> is also a zero value.</p>	<p>Many complex situations we encounter in everyday life are best explained with polynomial functions. This Lesson explains the characteristics of polynomial functions and shows how to solve and interpret them. Examples include the AIDS epidemic, population studies, and the price of gold.</p>	<p>Polynomial Functions</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Polynomial Functions</li> <li>Chapter 2 The Factor Theorem</li> <li>Chapter 3 Curve Sketching of Polynomial Functions</li> <li>Chapter 4 Fundamental Theorem</li> </ul>	<p>Terminology: Mathematical Modeling Empirical Data Polynomial Function Degree of Polynomial Function Curve Fitting Tails or Extremes Extrapolation Factor Theorem Quadratic Formula Zero Value Zeros of a Polynomial Function Curve Sketching Curve Fitting Steps for Curve Sketching Multiplicity Fundamental Theorem of Algebra Complex Number Complex Zeros Complex Conjugates</p>	<p>Appendix A. On The Record B. The Big Zip C. A Little Wild D. Boy Wonder</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 5 Rational Functions You will</p> <ul style="list-style-type: none"> <li>• identify the main characteristics of rational functions;</li> <li>• interpret and graph rational functions with horizontal and vertical asymptotes;</li> <li>• and interpret and graph rational functions that have horizontal, no horizontal, or oblique asymptotes.</li> </ul>	<p>Chapter 1 "A Preview of Coming Equations" "Defining Rational Functions" Rational Function: <math>f(x) = \frac{p(x)}{q(x)}</math> Chapter 2 "Introducing Asymptotes" "Clues for Graphing" "Rational Functional Apportionment" Chapter 3 "Swimming Upstream" Energy = <math>Cv^3t</math> "Behind the Function" "Finding the Middle Ground" "Wrapping Up"</p>	<p>Rational functions are composed of polynomial functions but behave differently than polynomial functions because rational functions have a denominator. This Lesson explains the general characteristics of rational functions and shows how to interpret their graphs. Examples of rational functions include gas mileage efficiency, legislative reappointment, and energy consumption by salmon.</p>	<p>Rational Functions</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Identifying Rational Functions</li> <li>• Chapter 2 Graphing Rational Functions</li> <li>• Chapter 3 Interpreting Rational Functions</li> <li>• Appendix</li> </ul>	<p>Terminology: Polynomial Rational Function Domain of a Function Undefined Degree of a Polynomial Asymptote Vertical Asymptote Horizontal Asymptote X-Intercept Y-Intercept Absolute Value Steps to Graph a Rational Function Degree of Numerator &gt; degree of Denominator Degree of Numerator &lt; Degree of Denominator Degree of Numerator = Degree of Denominator Oblique Asymptote Division of Polynomials</p>	<p>Appendix A. A Full Life B. A Founding Function</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 6 Exponentials You will</p> <ul style="list-style-type: none"> <li>• solve problems involving exponential growth functions;</li> <li>• solve real-world problems involving exponential decay functions;</li> <li>• and solve some real-life problems involving the compounding effect.</li> </ul>	<p>Chapter 1 "Exponential Functions" "Compound Interest" "Compounding and Exponential Functions" "Exponential Growth and Populations" "Exponential Growth of Population" Chapter 2 "Exponential Decay" "Negative Values in Exponential Decay Functions" Chapter 3 "Advantages of Frequent Compounding" "Compounding and the Value of e" <math>f(x) = e</math> to the power of x "In Summary"</p>	<p>In exponential functions, the exponent is a variable. This Lesson explains exponential functions and shows how to solve exponential growth and decay problems. It also demonstrates the compounding effect in interest calculations. Examples come from management, finance, and nuclear science.</p>	<p>Exponential Functions</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Exponential Growth</li> <li>• Chapter 2 Exponential Decay</li> <li>• Chapter 3 Compounding and the Value of e</li> <li>• Appendix</li> </ul>	<p>Terminology: Exponential Function Rule of 72 Doubling Time Compound Interest Exponential Growth Graph Exponential Growth Function Asymptote Exponential Decay Function Half Life Domain Range Exponential Decay Graph Exponential Decay Formula Compound Effect Compounded Interest e Exponential Function Formula <math>f(x) = a</math> to the power of x Compounding Interest: <math>T(n) = P(1+i)</math> to the power of n Compounding Periods: <math>T(n) = P(1 + \frac{i}{m})</math> times n  The Rule of 72: Doubling Time + <math>\frac{72}{R}</math>  Exponential Growth: <math>P(1 + i)</math> to the power of n Exponential Decay: <math>P(1-i)</math> to the power of n Half Life: <math>T(n) = P(1-i)</math> to the power of n</p>	<p>Appendix A. A Lack of Interest B. Considering Jericho C. For a Few Dollars More</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 7 Logarithmic You will</p> <ul style="list-style-type: none"> <li>identify and interpret logarithmic notation;</li> <li>solve equations using logarithms;</li> <li>and solve equations using natural logarithms.</li> </ul>	<p>Chapter 1 "Backing Up a Bit" "Logarithmic Notation" Chapter 2 "Solving Logarithmic Function" "The Product Rule of Logarithms" "Introducing the Quotient Rule" "Introducing the Power Rule" "Using Logarithms to Solve Problems" "The Value of Logarithmic Values" "Using Logarithms in World Relations" Chapter 3 "Continuous Compounding Growth" "Negative Logarithms" "Logarithms and Exponential Graphs" "Carbon Dating and Logarithms"</p>	<p>Logarithmic functions help us to solve complex problems that involve exponents. This Lesson explains how to manipulate logarithmic expressions to solve equations. It also introduces natural logarithms and the concept of the number <math>e</math>. Examples of problems include the procedure for the dating of ancient artifacts and the process of nuclear testing verification.</p>	<p>Logarithmic Functions</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Interpreting Logarithmic Notation</li> <li>Chapter 2 Solving Logarithmic Equations</li> <li>Chapter 3 Solving Natural Logarithm Equations</li> <li>Appendix</li> </ul>	<p>Terminology: Logarithm Base Exponent Logarithmic Notation Evaluating Logarithmic Equations Properties of Logarithms Product Rule of Logarithms Quotient Rule of Logarithms Power Rule of Logarithms Common Logarithm Solving Exponential Equations with Logarithms Natural Logarithm <math>e</math> Exponential Function Logarithmic Function <math>\ln x</math> Logarithmic Notation: <math>b</math> to the power of <math>x = N</math> <math>\log_b N = l</math></p> <ul style="list-style-type: none"> <li>The logarithm of 1 is always 0, no matter what the base.</li> <li>The logarithm of the base is always 1.</li> </ul>	<p>Appendix A. Cranking Out Logarithms B. A Fowl Deed C. Table for Two</p>
<p>Lesson 8 Systems You will</p> <ul style="list-style-type: none"> <li>solve linear equations with two variables using the substitution method;</li> <li>solve systems of consistent linear equations that have more than two variables;</li> <li>and solve nonlinear equations.</li> </ul>	<p>Chapter 1 "The Substitution Method" "Consistent and Inconsistent Systems" "A Real-World System of Equations" Chapter 2 "More Than Two" "Equations With Four Variables" Chapter 3 No video clips Chapter 4 "Nonlinear Business Equations" "Sol's Final Words"</p>	<p>A system of equations is a set of two or more equations that describes a situation. This Lesson explains how to solve linear and non-linear systems of equations using a variety of techniques. Many examples such as product pricing are shown from the world of business.</p>	<p>Systems of Equations</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Systems of Equations</li> <li>Chapter 2 Systems With More Than Two Variables</li> <li>Chapter 3 Matrices</li> <li>Chapter 4 Nonlinear Systems of Equations</li> <li>Appendix</li> </ul>	<p>Terminology: Consistent Systems Dependent Systems Equivalent Systems Inconsistent Systems Slope-Intercept Form Linear Equation System of Equations Substitution Method System of Equations with 3 or More Variables Elimination Method Equilibrium Price Matrix Gauss-Jordan Method Coefficient Augmented Matrix Transformation Transformation Rules Quadratic Equation Parabola Nonlinear Systems of Equations Points of Intersection Quadratic Formula</p>	<p>Appendix A. At Any Price B. Double the Fun C. Matrix Day D. On Pins and Needles</p>



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 9 Systems of Linear Inequalities</p> <p>You will</p> <ul style="list-style-type: none"> <li>identify the feasible region or solution of a system of linear inequalities;</li> <li>and find the point which maximizes or minimizes the objective function by using the corner principle.</li> </ul>	<p>Chapter 1 "The Berlin Airlift" "Planning the Berlin Airlift"</p> <p>Chapter 2 "Linear Programming and Best Solutions" "The Corner Principle" "The Simplex Method" "Summary"</p>	<p>The field of planning and implementation relies heavily on systems of linear inequalities. This Lesson shows many graphs of these systems and explains how to find optimal solutions to problems that involve systems of linear inequalities. Examples from business and industry include a discussion of preparing an airline's flight schedule.</p>	<p>Systems of Linear Inequality</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Feasible Region</li> <li>Chapter 2 Optimal Solutions to Linear Programming Problems</li> <li>Appendix</li> </ul>	<p>Terminology: Constraints Feasible Region Y-Intercept slope-Intercept Slope Linear Inequalities Strict Linear Inequality System of Linear Inequalities Graphing Linear Inequalities Linear Programming Objective Function Corner Principle Simplex Method Steps to Solve a Linear Programming Problem</p>	<p>Appendix A. The Monster B. The Admiral C. Late As Usual D. Linear Programming &amp; Flight Schedules</p>
<p>Lesson 10 Sequences 1</p> <p>You will</p> <ul style="list-style-type: none"> <li>recognize an arithmetic sequence and find any term in its sequence;</li> <li>identify and work with different types of natural sequences;</li> <li>determine the sum of the terms in a finite arithmetic sequence;</li> <li>and apply the procedure for mathematical induction and disprove statements by producing a counterexample.</li> </ul>	<p>Chapter 1 "Sequence Defined" "Arithmetic Sequences" "A Practical Example" "A General Formula"</p> <p>Chapter 2 "The Fibonacci Sequence"</p> <p>Chapter 3 "Getting Serious About Series" "A Helpful Formula"</p> <p>Chapter 4 "Mathematical Induction" "Another Proof" "Importance of Induction Step" "One Formula Fits All" "A Counterexample"</p>	<p>Nature is full of patterns involving number sequences. This Lesson introduces arithmetic and natural sequences and uses sequences to demonstrate the procedure of mathematical statements are always true. Examples include the projection of a child's final adult height and occurrences of the Fibonacci sequence in nature.</p>	<p>Sequences, Series, and Induction</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Arithmetic Sequences</li> <li>Chapter 2 Natural Sequences</li> <li>Chapter 3 Arithmetic Series</li> <li>Chapter 4 Mathematical Induction</li> <li>Appendix</li> </ul>	<p>Terminology: Sequence Arithmetic Sequence Common Difference Finite Sequence Infinite Sequence Ellipsis Formula for an an General Term Formula Recursive Formula Natural Sequences Fibonacci Sequence Golden Ratio Arithmetic Series Sigma Sum of Finite Arithmetic Sequences Combined Formula Principle of Mathematical Induction Proof by Mathematical Induction Counterexample</p>	<p>Appendix A. Kid Stuff B. Those Darn Rabbits C. Traveling man D. Sicilian Bounty</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 11 Sequence 2</p> <p>You will</p> <ul style="list-style-type: none"> <li>find any term in a geometric sequence and find the common ratio of the sequence; determine the first term and common ratio of a geometric sequence from any two known terms;</li> <li>find the sum of any finite geometric series;</li> <li>and find the sum of an infinite geometric series.</li> </ul>	<p>Chapter 1</p> <p>“What is a Geometric Sequence?”</p> <p>“ The nth Degree”</p> <p>“A Dose of Reality”</p> <p>“Finding First Term &amp; Common Ratio”</p> <p>“A Musical Interlude”</p> <p>Chapter 2</p> <p>“Finite Geometric Series”</p> <p>“A Problem Close To Home”</p> <p>Chapter 3</p> <p>“Stretching Your Mind”</p> <p>“Looking at repeating Decimals”</p> <p>“The Golden Ratio”</p>	<p>Geometric sequences have special characteristics that make them well suited to particular types of problems. This Lesson shows you how to work with geometric sequences and both finite and infinite geometric series. Examples include problems in the fields of medicine, music, and finance.</p>	<p>Geometric Sequences And Series</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Geometric Sequences</li> <li>Chapter 2 Finite Geometric Series</li> <li>Chapter 3</li> <li>Infinite Geometric Series</li> <li>Appendix</li> </ul>	<p>Terminology:</p> <p>Geometric Sequence</p> <p>Common Ratio</p> <p>Finding an for a geometric sequence</p> <p>Finding a1 and r From Two Known Terms</p> <p>Finite Geometric Series</p> <p>Sum of a Finite Geometric Series</p> <p>Sum of a Geometric Series When <math>r=1</math></p> <p>Infinite Geometric Series</p> <p>Repeating Decimals</p> <p>Golden Ratio</p> <p>Sum of an Infinite Geometric Series</p>	<p>Appendix</p> <p>A. Stringing Along</p> <p>B. Here Today, Gone Tomorrow</p> <p>C. A Ratio by Any Other Name</p>
<p>Lesson 12 Permutations</p> <p>You will</p> <ul style="list-style-type: none"> <li>apply the fundamental principle of counting to determine possible outcomes;</li> <li>apply permutations in appropriate problems;</li> <li>and calculate combinations in appropriate problems.</li> </ul>	<p>Chapter 1</p> <p>“Fundamental Principle of Counting”</p> <p>“Area Codes”</p> <p>“The Genetic Code”</p> <p>Chapter 2</p> <p>“Permutations”</p> <p>“n! (n-factorial)”</p> <p>“Permutation Notation”</p> <p>Chapter 3</p> <p>“Combinations”</p> <p>“General Formula”</p> <p>“Full House”</p> <p>“Megabucks”</p> <p>“Here Are Your Winning Numbers”</p>	<p>Daily life offers an endless array of choices. This Lesson shows you how to calculate a total number of choices available in a given situation, how to determine outcomes when one event depends upon another, and how to determine the number of choices when the order of events is not important. Examples are drawn from the political arena, recreational gaming, and everyday life.</p>	<p>Permutations and Combinations</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Counting Principle</li> <li>Chapter 2 Permutations</li> <li>Chapter 3 Combinations</li> <li>Appendix</li> </ul>	<p>Terminology:</p> <p>Independent Events</p> <p>Fundamental Principle of Counting</p> <p>Multiplication Principle</p> <p>Permutation</p> <p><math>n!</math></p> <p>Permutation Formula</p> <p><math>0!</math></p> <p>Combinations</p> <p>General Formula for Combinations</p> <p>Distinguishing Between Permutations and Combinations</p> <p>Permutation Formula:</p> $P(n,r) = \frac{n!}{n-r}$ <p>Combination Formula:</p> $C(n,r) = \frac{P(n,r)}{r!}$	<p>Appendix</p> <p>A. A Messy Beginning</p> <p>B. A Screw Loose</p> <p>C. A Fool and His Money</p>
<p>Lesson 13 Probability</p> <p>You will</p> <ul style="list-style-type: none"> <li>define terms dealing with probability and calculate simple probabilities;</li> <li>calculate expected values;</li> <li>and calculate probabilities when independence is an issue.</li> </ul>	<p>Chapter 1</p> <p>“Chances Are”</p> <p>“The Probability of an Event”</p> <p>“The Roulette Wheel”</p> <p>Chapter 2</p> <p>“Expected Value”</p> <p>“Lotteries”</p> <p>Chapter 3</p> <p>“Putting Together a String”</p> <p>“A Hot Streak”</p>	<p>Probability is the science of chance. This Lesson shows you how to calculate the likelihood of outcomes, the probable costs of uncertain situations, and probability when one outcome is dependent upon another. Examples include games of chance, sporting events, and figuring insurance risks.</p>	<p>Probability</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Simple Probability</li> <li>Chapter 2 Expected Value</li> <li>Chapter 3 Independence</li> <li>Appendix</li> </ul>	<p>Terminology:</p> <p>Event</p> <p>Experiment</p> <p>Probability</p> <p>Sample Space</p> <p>Complement</p> <p>Outcome</p> <p>Probability Formula</p> <p>Complement Formula</p> <p>Expected Value</p> <p>Independent Events</p> <p>Expected Value Formula</p> <p>Nonrandom Events</p>	<p>Appendix</p> <p>A. At Random</p> <p>B. Risky Business</p> <p>C. Putting Out a Contract</p> <p>D. Stranger Than Fiction!</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p><b>READING 1</b> Lesson 1 Practical Product Labels You will</p> <ul style="list-style-type: none"> <li>Locate information on food, drug, and household product labels;</li> <li>comprehend information from product labels and print materials about them;</li> <li>and apply information from product labels and charts to specific situations.</li> </ul>	<p>.Chapter 1 "How Much Is Too Much?" "How Old Is This Bird?" Chapter 2 "A Report On Aspirin" "A Spray for Your Snooze?" Chapter 3 "He's My Only Nephew"</p>	<p>Video: Darrell's brother-in-law Martin wants to give adult medication to his young son. Annie-in-the-Aisles, Dr. Felix Goode, and a consumer look at food labels, medicine, and nasal sprays. Reading Material: over-the-counter medicine labels, nutrition labels, charts from product labels, labels from common products</p>	<p>Product Labels</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Locating Information</li> <li>Chapter 2 Interpreting Information</li> <li>Chapter 3 Applying Information</li> <li>Appendix</li> </ul> <p>Terminology Cont. Calories Sodium Protein Fat Sugar Fiber Carbohydrates</p>	<p>Terminology: Aspirin Cold Remedy Dosage Expiration Date Over-the-counter Caution Overdose Nutrition Percent Daily Value Reye Syndrome "Use-by" Date "Sell-by" Date Indicators Alleviate Cure Drowsiness Exceed Persist Relieve Severe Side Effects Topical</p>	<p>Appendix A. Reye Syndrome and Young People B. Side Effects and Cold Remedies C. Sometimes Sugar Isn't Sugar</p>
<p>Lesson 2 Practical Housing You Will</p> <ul style="list-style-type: none"> <li>locate information in print materials associated with housing;</li> <li>comprehend information in print materials associated with housing;</li> <li>and apply information from these kinds of materials to specific situations.</li> </ul>	<p>Chapter 1 "A serious Problem" Chapter 2 No Video Clips Chapter 3 "Rhonda Finds The Answer"</p>	<p>Video: Rhonda's landlord threatens her with eviction, claiming she is late with her rent. Reading Material: Parts of leases, Lessonlets on tenant and landlord rights, purchase agreements, and assorted forms and information connected with housing.</p>	<p>Housing</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Locating Information</li> <li>Chapter 2 Understanding Special Vocabulary</li> <li>Chapter 3 Looking for Key Words</li> <li>Appendix</li> </ul> <p>Terminology Continued: Breaking the Lease Violation of Terms Permission Written Consent Duplication Prorate Fees Prospective Service Charge Extension Maintenance Scan Renewal</p>	<p>Terminology: Lease Security Deposit Resident Rent Abatement Rent Withholding Public Housing Occupancy Eviction Notice Escrow Interest Penalty Punitive Damages Tenant's Tights Receipt Renter Tenant Landlord Lessor Owner Terminate Management Access Omission</p>	<p>Appendix A. Speaking Up About Leases B. When the Dictionary Lets You Down C. Scanning the Want Adds</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 3 Practical Services in the Community</p> <p>You will</p> <ul style="list-style-type: none"> <li>interpret words from print materials about services for individuals and families;</li> <li>interpret statements used in these kinds of materials;</li> <li>and apply information from these kinds of materials to specific situations.</li> </ul>	<p>Chapter 1 "A Class Act" "Looking For Help"</p> <p>Chapter 2 "Elvis in the News" "Eligible"</p> <p>Chapter 3 "Do I Qualify?" "Question What You Read"</p>	<p>Video: Rhonda looks for ways to continue her education and take care of her young daughter.</p> <p>Reading Material: brochures, pamphlets, descriptions, and registration forms for classes, day camps, public schools, and various community services.</p>	<p>Services in the Community</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Interpreting Words</li> <li>Chapter 2 Interpreting Statements</li> <li>Chapter 3 Using the Information</li> <li>Appendix</li> </ul> <p>Terminology Continued: Minimum Wage Scholarship Conscientious Pertussis Medical Contraindication Adolescent Vocational School Adaptive Access Communicable Extension Class Hesitant Therapeutic Situation Administration Disability Work Study</p>	<p>Terminology: Aquatic Bulletin Document Eligible Enroll Cognitive Curriculum Imperative Process Community Education Grant Loan Manipulative Census Certificate Interpret Technical School Financial Aid Immunization Exemption Confirmation Guidelines Special Education Vaccination Nasal Symptoms</p>	<p>Appendix A. Reading to Young Children B. Grants, Loans, and Scholarships C. Vaccination Recommendations</p>
<p>Lesson 4 Practical Looking For Work</p> <p>You will</p> <ul style="list-style-type: none"> <li>interpret want ads and other sources of information about jobs;</li> <li>infer information from want ads, job descriptions, and other job search materials;</li> <li>and interpret words and statements from application forms, resumes, etc.</li> </ul>	<p>Chapter 1 "It's Time to Pound the Pavement"</p> <p>Chapter 2 No video clips</p> <p>Chapter 3 "Getting It All Down on Paper"</p>	<p>Video: Darrell's family and friends show an interest in his search.</p> <p>Reading Material: job application forms, resumes, job posting, want ads, and other job search information.</p>	<p>Looking for Work</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Reading the Want Ads</li> <li>Chapter 2 Analyzing the Ads</li> <li>Chapter 3 Using Application Forms and Resumes</li> <li>Appendix</li> </ul> <p>Terminology Continued: Current Employer Misrepresentation Omission Potential References Prospect Dismissal Residence Work History Disability Discharge</p>	<p>Terminology: Abbreviation Benefits Dollars per Hour Full Time Negotiable Overtime Part-time Salary Swingshift Temporary Commensurate Class B License Qualifications Infer Rent Credit Drug Screen Shift Differential Employee Discount Controller Resume Communication Skills Words per Minute Unsatisfactory Misconduct</p>	<p>Appendix A. Where Do I Fit? B. Job Clubs and Job Searches C. Putting Your Best Foot Forward</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 5 Practical Food and Home</p> <p>You will</p> <ul style="list-style-type: none"> <li>find basic information embedded in instructions for using products, preparing foods' and completing household projects;</li> <li>interpret statements in instructions about sequence and choices.</li> <li>and apply information from a set of instructions to a specific situation.</li> </ul>	<p>Chapter 1 "A New Look"</p> <p>Chapter 2 "The Car is Dead" "If -Then" "Itching For Opinions" "Are You Bouncing Along?"</p> <p>Chapter 3 "How Does It Feel?"</p>	<p>Video: Candy and Rhonda do a home permanent. Connie Clampett gives instructions for basic car care. Dr. Felix Goode gives instructions for people with poison ivy.</p> <p>Reading Material: Instructions for making meals, fences, and other items; instructions for using cleaners, bug sprays, etc.</p>	<p>Food and Home</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Reading the Instructions</li> <li>Chapter 2 What Happens When?</li> <li>Chapter 3 Using What You Read</li> <li>Appendix</li> </ul> <p>Terminology Continued: Independence Ingredients Neutralize Inhale Contamination Simmer Minimum Penetrate Preparation Tome Fiber Basic Requirements</p>	<p>Terminology: Home Permanent Impart IRS Method Category Estimate Saturate Repellent Silicone Strategy Outcome Utensil Inconspicuous Deflect Parallel Poison Ivy Remedy Sequence Urgency Nonflammable Mince</p>	<p>Appendix</p> <p>A. Toward a Healthier Diet</p> <p>B. When a Child Swallows Poison</p> <p>C. Planning and Food Preparation</p>
<p>Lesson 6 Practical Personal Health</p> <p>You will</p> <ul style="list-style-type: none"> <li>recognize the meaning of key terms used to discuss health and medical issues;</li> <li>interpret statements about health in terms of causes, effects, and contributing factors.</li> <li>and apply information about health to specific situations.</li> </ul>	<p>Chapter 1 "A Mild Case Of Hypertension" "The Right Idea"</p> <p>Chapter 2 "I'm Not Supposed To Get Upset" "What Can We Say?" "Can Sweets Make You Sour?"</p> <p>Chapter 3 "I Feel Different Now." "Is It Fast Food Or Fat Food?"</p>	<p>Video: Martin finds he has high blood pressure. Dr. Felix Goode discusses preventive medicine and high blood pressure. A couple learns about caffeine, sugar, and irritability.</p> <p>Reading Material: Pamphlets, fact sheets, and short articles on high blood pressure, high cholesterol, nutrition, and common preventive medicine.</p>	<p>Personal Health</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Key Health and Medical Terms</li> <li>Chapter 2</li> <li>Causes, Effects, and Contributing Factors</li> <li>Chapter 3 Putting Health to Work</li> <li>Appendix</li> </ul> <p>Terminology Continued: Immunosuppression Chronic Coronary Cholesterol Acetaminophen Streptococcus Verifies Caffeine Adverse Strep Throat Mammography Baseline Moderation</p>	<p>Terminology: Diagnosis Disease Cure Generic Hypertension Pharmacist Virus Bacteria Illness Over-the-counter Prescription Prevention Editorial Root Word Infection Complications Antibiotic Cause Effect Cause and Effect Relationship Contributing Factor Exposed Personnel Qualifier Profile</p>	<p>Appendix</p> <p>A. Me? High Blood Cholesterol?</p> <p>B. Less Stress Is Best</p> <p>C. Home Treatments That Works</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 7 Practical Advertising</p> <p>You will</p> <ul style="list-style-type: none"> <li>interpret information in print ads and product information;</li> <li>locate and identify in print warranties, guarantees, and service contracts;</li> <li>and interpret information from these kinds of print materials.</li> </ul>	<p>Chapter 1 "Rhonda's New Car" "A Super Sale"</p> <p>Chapter 2 "Uh-Oh"</p> <p>Chapter 3 "Give Me My Money Back!"</p>	<p>Video: Rhonda sets out to buy a used car. We also hear from "Downtown Charlie Brown" who sells furniture.</p> <p>Reading Material: Ads, print promotions for sales, discount coupons, warranties, and service contracts.</p>	<p>Advertising</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Where's The Beef?"</li> <li>Chapter 2 Warranties and Service Contracts</li> <li>Chapter 3 Using Information</li> <li>Appendix</li> </ul> <p>Terminology Continued:</p> <p>Authorized Deface Exclusions Purchase Registration Remediable Act of God Inconvenience Obscure Obligation Secure Equivalent Receipt Troubleshooter Workmanship Malfunction Defective</p>	<p>Terminology:</p> <p>Concrete Disclaimer Emissions Exaggeration Judgement Mechanically Fare Destination News brief Pitch Qualitative Reasonable Guarantee Objective Discount Domestic Acknowledgement Clunker Consequential Incidental Warranty Service Contract Limited Warranty Liable Substantial</p>	<p>Appendix</p> <p>A. Everything Is Negotiable B. Check It Out C. So You Don't Get Stung</p>
<p>Lesson 8 Practical Home Safety</p> <p>You Will</p> <ul style="list-style-type: none"> <li>Draw inferences about home security from brief news accounts;</li> <li>Determine the main point of a short passage about facts contributing to home security</li> <li>And draw inferences from passages about factors contributing to home safety.</li> </ul>	<p>Chapter 1 "Mr. John, This Is Serious"</p> <p>Chapter 2 "Pills or Prevention"</p> <p>Chapter 3 "I Got You, You Punk" "Are You All Right, Mr. John?"</p>	<p>Video: Darrell is worried about Mr. John's safety. He learned there is a burglar in the neighborhood.</p> <p>Reading Material: News briefs about burglars; fliers and brochures about crime prevention; pamphlets about dangers within the home such a radon, asbestos, and lead.</p>	<p>Home Safety</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Drawing Inferences, Part One</li> <li>Chapter 2 Finding the Main Point</li> <li>Chapter 3 Drawing Inferences, Part Two</li> <li>Appendix</li> </ul> <p>Terminology Continued:</p> <p>Biological Cautionary Acoustical Thermal Insulation Insurance Premium Mesothelioma Illusion Compose Relatively Elevated</p>	<p>Terminology:</p> <p>Accumulate Asbestos Concentration Conclusion Diluted Formaldehyde Assailants Pitchblende Phosphate Radon Ransack Incidence Inference Humidity Humidifier Main Point Allergic Reaction Pollen Asthma Maintenance Contract Condense Intruder</p>	<p>Appendix</p> <p>A. Bad News For Burglars B. How Can Radon Get In A Home</p> <p>1. C. Watching Out For Each Other</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 9 Practical Travel</p> <p>You will</p> <ul style="list-style-type: none"> <li>locate and pull information from mileage charts, bus schedules, local maps, and materials with basic travel information;</li> <li>locate and pull information from building guides, road maps, and street maps;</li> <li>and apply information from any of these materials to specific situations.</li> </ul>	<p>Chapter 1 "Yes, Mom"</p> <p>Chapter 2 "How Far Is It?"</p> <p>Chapter 3 "Not What It Seems" "Hello Mama"</p>	<p>Video: Rhonda decides to drive her newly purchased car to visit Mama who has just moved to a different city.</p> <p>Reading Material: Maps, mileage charts, bus schedules, park guides, mall guides, etc.</p>	<p>Travel</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Schedules and Charts</li> <li>Chapter 2 Maps</li> <li>Chapter 3 Using the Information</li> <li>Appendix</li> </ul> <p>Terminology Continued:</p> <p>Language Legend Parallel Particular Street Map State Map Divided Highway Exact Fare Route</p>	<p>Terminology:</p> <p>Imagine Mileage Interstate Off-peak Endorse Zone Schedule Symbols Kilometer Transfer Surcharge Clutter Floor-plan Intimidated Key Coordinates City Map Independent Nonsense Traffic Express</p>	<p>Appendix</p> <p>A. Planning a Perfect Trip B. What to Keep in the Car C. What to Keep in the Trunk</p>
<p>Lesson 10 Practical Reference Materials and References</p> <p>You will</p> <ul style="list-style-type: none"> <li>locate information in dictionaries and encyclopedias;</li> <li>locate information in reference systems within Lessons (the index, table of contents, glossary, bibliography, and appendix);</li> <li>and find information about sources from library catalogs and guides to periodicals.</li> </ul>	<p>Chapter 1 "What's That Thing?"</p> <p>Chapter 2 "Take care of Yourself" "Annie's Eater's Digest"</p> <p>Chapter 3 "The Investigator Returns" "When Is A UFO No Longer A UFO?"</p>	<p>Video: When Darrell witnesses something unusual, he decides to do some research on the subject. Annie-in-the Aisles and Dr. Felix Goode show how an index helps you find information.</p> <p>Reading Material: Dictionary entries, indices, tables of contents, glossaries, catalog entries, guides to periodicals.</p>	<p>Reference Materials &amp; Resources</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Dictionaries and Encyclopedias</li> <li>Chapter 2 Reference Tools within Lessons</li> <li>Chapter 3 Card Catalogs and Guides to Periodicals</li> <li>Appendix</li> </ul> <p>Terminology Continued:</p> <p>Call Numbers Cardio-respiratory Periodical Guide Misperception Edition Alien Phenomenon Version Refugee</p>	<p>Terminology:</p> <p>Encyclopedia Chilblain Conjecture Dictionary Etymology Latin Reference Periodical Middle English Middle French Parts of Speech Pronunciation Verb Reader's Guide Card Catalog Alphabetical Caffeine Chronological Entry Contract Bridge Coordinates Ingressive Veleric Airstream</p>	<p>Appendix</p> <p>A. Let's Boogie B. A Bit of Lesson History C. Mr. Franklin's Little Library</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 11 Practical Consumer Credit You will</p> <ul style="list-style-type: none"> <li>recognize stated and implied relationships in print materials about consumer credit.</li> <li>pull and interpret information from disclosure charts, monthly statements, and the other credit-related documents;</li> <li>and apply information from credit documents to specific situations.</li> </ul>	<p>Chapter 1 "How Could They Do This?" Chapter 2 "Annual Percentage Rates" Chapter 3 "Rhonda and Ruby"</p>	<p>Video: Rhonda wants to buy on credit from a local department store. She runs into unexpected problems. Annie-in-the-Aisles looks at terms of credit. Reading Material: Fact sheets on equal opportunity for credit, wise use of credit, kinds of credit, and common terms; disclosure information required of lenders; and billings from lenders.</p>	<p>Consumer Credit</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Between the Words</li> <li>Chapter 2 Disclosures and Bills</li> <li>Chapter 3 Making It Work</li> <li>Appendix</li> </ul> <p>Terminology Continued: Abbreviated APR Disclosure Grace Period Credit Limit Reserve PocketLesson Policies Transaction Revolving Credit Non-sufficient Applicable Modify Harass Oppress Abuse</p>	<p>Terminology: Consumer Deny Evaluation Exist Expression Finance Bankruptcy Principal Garnish Marital Status Mortgage Punctual Reject Shortchange Credit Reference Credit Bureau Certified Mail Equal Opportunity Frivolous Irrelevant Dispute Honor Initial Establish Relevant Entitled</p>	<p>Appendix A. You've Been Approved B. When You're In Over Your Head C. Paying Yourself First</p>
<p>Lesson 12 Practical Important Forms You Will</p> <ul style="list-style-type: none"> <li>locate the place on a form for specific information and recognize when specific information is not required;</li> <li>understand words, terms, or statements on a form from the context;</li> <li>and interpret information from a completed form.</li> </ul>	<p>Chapter 1 "Darrell Does His Civic Duty" Chapter 2 "Read Before You Leap" Chapter 3 "Counting Pennies, Counting Votes"</p>	<p>Video: Darrell decides to vote. Martin decides his family needs more health insurance. That means it's time to fill out forms. Connie Clampett looks at car insurance. Reading Material: Voter registration forms, IRS tax forms and instructions, job-related forms, school-related forms for parents, and a variety of application forms.</p>	<p>Important Forms</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Locating Specific Information</li> <li>Chapter 2 Interpreting Instructions</li> <li>Chapter 3 Applying Information</li> <li>Appendix</li> </ul> <p>Terminology Continued: Proofreading Insufficient Unemployment Compensation Dependent Spouse Submission</p>	<p>Terminology: Alien Applicable Complicated Layout Exempt Status Gross Income Genuine Perjury Verification Withhold Itemized Deductions Nonwage Income Category Immigration Jargon Coverage</p>	<p>Appendix A. Informed Forms B. Far-Gone Jargon C. Forms for the Taking</p>



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 13 General Human Behavior</p> <p>You will</p> <ul style="list-style-type: none"> <li>• Interpret passages from articles that generalize about human behavior;</li> <li>• Interpret statements about remedies or suggestions from articles about human behavior;</li> <li>• And compare information and generalize from case studies of human behavior.</li> </ul>	<p>Chapter 1 "An Unpleasant Encounter"</p> <p>Chapter 2 "What Shall I Do?"</p> <p>Chapter 3 "A New Perspective"</p>	<p>Video: Ronald has a difficult time adjusting to his divorce. Rhonda and one of Rhonda's coworkers offer advice.</p> <p>Reading Material: Articles, brochures, and pamphlets that generalize about human behavior and give advice about stress, parenting, divorce, diet, etc.</p>	<p>Human Behavior</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Generalizations</li> <li>• Chapter 2 Advice</li> <li>• Chapter 3 Drawing Conclusions</li> <li>• Appendix</li> </ul> <p>Terminology Continued:</p> <p>Abuse Treatment Symptom Violent Disorder Evaluation Adversely Contrast Compare Hallucination Unintelligible Seclusion Intelligence Impatient</p>	<p>Terminology:</p> <p>Chore Exhilarating Impaired Prediction Psychologist Bipolar Grandiose Characteristics Resist Stereotype Trend Competence Psycho-social Proportion Depression Physical Psychological Critically Delirious Irrational Anxiety Discharge Hopeless Congenial</p>	<p>Appendix</p> <p>A. Dr. Jung's Generalizations</p> <p>B. Black Dog Days</p>
<p>Lesson 14 General Common Accidents</p> <p>You Will</p> <ul style="list-style-type: none"> <li>• Interpret cause and effect relationships in articles about common accidents;</li> <li>• Draw or recognize inferences concerning prevention of common accidents based on print</li> <li>• And apply information about accident prevention and remedies to specific situations.</li> </ul>	<p>Chapter 1 "A Serious Close Call"</p> <p>"Basic Cause and Effect"</p> <p>Chapter 2 "A Dangerous Way to Clean Up"</p> <p>"Save A Child's Life for \$50"</p> <p>Chapter 3 "Shh, I'm Reading"</p> <p>"The Kiss Of Life"</p>	<p>Video: An accident causes Darrell, Gloria, and Martin to focus on prevention and remedies. Dr. Goode, Annie-in-the-Aisles, and Connie Clampett discuss emergency first aid, seatbelts, and cleaning with gasoline.</p> <p>Reading Material: Short articles, fact sheets, and pamphlets on common accidents, hazards, and first aid.</p>	<p>Common Accidents</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Cause and Effect Relationships</li> <li>• Chapter 2 Drawing Inferences about Prevention</li> <li>• Chapter 3 Applying Information from Print Sources</li> <li>• Appendix</li> </ul> <p>Terminology Continued:</p> <p>Air Exchanges Artificial Respiration Chimney Flue Combustible Creosote Equivalency Emergency Procedures Ignite Kiss Of Life Smolder Asphyxiation Procedure</p>	<p>Terminology:</p> <p>Exclusions Expiration Date Fine Print Qualifies Cardiovascular Revival Time Limit Precaution Conscious Suffocate Capabilities Dilute Flammable Flotation Device Literally Carbon Monoxide Inhale Submersion Validity Ventilated Unconscious Toxic Deterioration Ingest</p>	<p>Appendix</p> <p>A. When to Seek Emergency Assistance</p> <p>B. Everybody Buckles Up</p> <p>C. Home Fire Safety</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 15 General Personal Safety You Will</p> <ul style="list-style-type: none"> <li>Recognize the main idea in a passage about personal safety;</li> <li>Recognize the main idea in charts, graphs, and paragraphs with statistics about personal safety;</li> <li>And interpret relevant or supporting details from passages, charts, and graphs on personal safety.</li> </ul>	<p>Chapter 1 "You'd Better Be Careful" Chapter 2 No Video Chapter 3 "Run"</p>	<p>Video: Rhonda finds good advice for her friend Candy who walks home alone from her job each evening. Reading Material: Pamphlet and brochures on personal safety [crime prevention, pedestrian safety, automotive safety, etc.).</p>	<p>Personal Safety</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 The Main Idea</li> <li>Chapter 2 Charts and Statistics</li> <li>Chapter 3 Supporting Details</li> <li>Appendix</li> </ul> <p>Terminology Continued: Argument Evidence Oncoming Proof Separate Statistic</p>	<p>Terminology: Disabled Identificational Sensory Revenue Long-winded Potential Prevention Lucrative Axis Burglary Emerge Horizontal Measurement Suspend Pedestrian Percentage Vertical Forcible</p>	<p>Appendix A. Another Way of Speaking B. Where'd They Come Up With That?</p>
<p>Lesson 16 General Pursuing Your Interests You Will</p> <ul style="list-style-type: none"> <li>Define difficult or unfamiliar words in paragraphs from definitions, examples, or contrasting statements;</li> <li>Recognize points of comparison and contrast in descriptions of categories of people or things;</li> <li>And define difficult or unfamiliar words from the larger context of a passage.</li> </ul>	<p>Chapter 1 "You Want to Be A What?" Chapter 2 "Two Ways to Peel a Banana" "Apprenticeship &amp; OJT (revisited)" Chapter 3 "This Person Called Moses"</p>	<p>Video: Martin, Gloria, and Mr. John look at categories of jobs, job stereotypes, and gender stereotypes. Reading Material: Articles that categorize, that compare and contrast types, and that generalize about people, things, or behaviors.</p>	<p>Pursuing your Interests</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Defining Difficult or Unfamiliar Words</li> <li>Chapter 2 Recognizing Points of Contrast</li> <li>Chapter 3 Defining Words from Longer Contexts</li> <li>Appendix</li> </ul> <p>Terminology Continued: Cacophony Furtive Jumble Collaborate Retention Numerator Denominator Monitor</p>	<p>Terminology: Abstract Encounter Nontraditional Ratify Ungainly Congestive Traditional Resistance Attitudes Segregation Plight Synonym Apprentice Apprenticeship Categorize Compare GED Dermatologist Contrast</p>	<p>Appendix A. Where's the Beef?" B. GED In Your Community C. Sojourner Truth</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 17 General Voices in Print You Will</p> <ul style="list-style-type: none"> <li>Recognize the point of view and the voices within a newspaper article;</li> <li>Rephrase the “problem” and the “solution” that are the main points of an opinion piece;</li> <li>And restate the support an author provides for his/her main point in an opinion piece.</li> </ul>	<p>Chapter 1 “A New Place To Go” Chapter 2 “Beau Baxter’s Lessons” “Joe To The Rescue” Chapter 3 “A Piece Of Her Mind”</p>	<p>Video: Rhonda reads a feature article that makes her want to think through a particular issue to herself. Editorials and reviews by Joe Holcombe and Beau Baxter give opinions about politics, the economy, and the environment. Reading material: Feature articles, editorials, letters to the editor, and reviews.</p>	<p>Voices In Print</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Points Of View</li> <li>Chapter 2 Opinions and Editorials</li> <li>Chapter 3 Reasoning</li> <li>Appendix</li> </ul> <p>Terminology Continued: Degrade Fossil Fuels Self-sufficiency Behavior Modification Bias Compact Complacent Attrition Marketing</p>	<p>Terminology: Point of view Quote Editorial Feature Obituary Frenzy Paraphrase Toxicologist Retard Encompass Proprietor Direct Quotation Diverse Recipient Theorize Malleable Equitable Innovation</p>	<p>Appendix A. I’d Rather Have Newspapers B. Bias and the Media C. And Another Thing!</p>
<p>Lesson 18 General Anecdotes, Fables, and Examples You Will</p> <ul style="list-style-type: none"> <li>Draw inferences from the details within a anecdote, fable, or extended example;</li> <li>Identify details that support an interpretation of an anecdote, fable, or short article;</li> <li>And draw inferences from an anecdote, fable, or short article taken as a whole.</li> </ul>	<p>Chapter 1 “The Leather Jacket” Chapter 2 “The Seven Arrows” Chapter 3 “Dateless Do-Right Darrell”</p>	<p>Video: When Darrell needs guidance, Gloria tells him a story. Beau Baxter reviews a Lesson of Native American stories. Reading Material: Articles that use anecdotes, fables, or extended examples to make a point.</p>	<p>Anecdotes, Fables, and Examples</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Drawing Inferences from Details</li> <li>Chapter 2 Details That Support A Interpretation</li> <li>Chapter 3 Drawing Inferences from the Whole Work</li> <li>Appendix</li> </ul> <p>Terminology Continued: Implication Bias Devastation Value-laden Pre-Existing Embezzlement Batter Intelligence</p>	<p>Terminology: Anecdote Fable Guerrilla Mischievous Principle Conscience Scam Carpal Tunnel Syndrome Affliction Trauma Cumulative Evacuate Immigration Excruciating Explicit Implicit Interpretation Symbolically Venture Median</p>	<p>Appendix: A. Where’d They Get All Those Logs? B. On My Car? C. Stories to Live By</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 19 General News</p> <p>You will</p> <ul style="list-style-type: none"> <li>• Distinguish statements of facts from statements of opinion in articles that quote several sources;</li> <li>• Interpret a statement about cause, effect, or consequences;</li> <li>• Identify the main point of an argument in a short article and identify supporting points.</li> </ul>	<p>Chapter 1 "A Kidnapping"</p> <p>Chapter 2 "Daddy's Thinking"</p> <p>Chapter 3 "Rudy To The Rescue"</p>	<p>Video: Ronald takes Sherry Lee as a way of getting back at Rhonda. He and Rhonda separately consider the consequences of his action.</p> <p>Reading Material: Short news articles about causes, effects, and consequences.</p>	<p>News</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Reading the Facts</li> <li>• Chapter 2 Cause and Effect</li> <li>• Chapter 3 What's the Point?</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Psychological Harm Resent Revoke Economist Uncomfortable Fallacy Haphazard Majority Bargain Evaporate Exhaust Fragrance Nitrogen Oxide Deter</p>	<p>Terminology: Authorize Brainwash Colleague Emotional Captor Data Genetic Misread Non-custodial Traditional Impetus Consumption Mentality Informed Opinion Consequence Considerable Discredit Fatalities Mandatory Dementia Entrenched</p>	<p>Appendix</p> <p>A. Consider The Source</p> <p>B. A Trip To The Analyst</p> <p>C. Two Kinds of Law</p>
<p>Lesson 20 General Scams and Frauds</p> <p>You will</p> <ul style="list-style-type: none"> <li>• Find or infer the main idea in articles about frauds, scams, and consumer issues;</li> <li>• Locate and restate specific information in these kinds of articles;</li> <li>• And apply information to specific situations.</li> </ul>	<p>Chapter 1 "Opportunity of a Lifetime"</p> <p>Chapter 2 "The Handy Dandy Kitchenmatic"</p> <p>"\$950 Million, and for What?"</p> <p>Chapter 3 "The Jig Is Up."</p>	<p>Video: Darrell and Gloria find an opportunity that seems too good to be true. Dr. Goode discusses quack "cures." A commercial shows an "amazing" product.</p> <p>Reading Material: Fact sheets on scams; pamphlets on 900 numbers, phone orders, and other transactions that may have hidden costs, penalties, or problems.</p>	<p>Scams and Frauds</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Reading for the Main Idea</li> <li>• Chapter 2 Locating Specific Information</li> <li>• Chapter 3 Applying Information</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Securities Gadget Quack Cure Skim Legitimate Chronic Exploits Multi-year Unconventional Up-front Costs Irrevocable Regulator</p>	<p>Terminology: Audition Endorsement Fraudulent Obligate Obscure Forego Extravagant Mainstream Orally Spectacular Subscription Unscrupulous Seductive Inducement Deceptive Noninvasive Antibiotics Arthritis Dope Comparable Undiagnosed Fly-by-night Dunning</p>	<p>Appendix:</p> <p>A. The Bank Examiner Scam</p> <p>B. Securities Scams</p> <p>C. Insurance Scams</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 21 Literature Stories</p> <p>You will</p> <ul style="list-style-type: none"> <li>Identify details about characters in a story;</li> <li>Identify details about when and where a scene takes place;</li> <li>And identify details about what happens in a scene.</li> </ul>	<p>Chapter 1 "A Love-ly Discussion"</p> <p>Chapter 2 "Another Lesson Review"</p> <p>Chapter 3 Love Can Hurt - and Kill</p>	<p>Video: Rhonda tells Candy about a story she's reading that is somewhat like her own story. Beau Baxter reviews a Lesson that tells the true stories of many people during a particular period of history.</p> <p>Reading Material: Passages from novels, short stories, nonfiction, and Lesson reviews.</p>	<p>Stories</p> <ul style="list-style-type: none"> <li>• Introductions</li> <li>• Chapter 1 The Characters</li> <li>• Chapter 2 Place &amp; Time</li> <li>• Chapter 3 Boiling It Down</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Descend Summarize Insolently Elaborately Fresh</p>	<p>Terminology: Peculiar Melancholy Phaseless Abnormally Persistent Meditative Incessantly Eloquence Intricate Habitual Institutional Hospitable Setting</p>	<p>Appendix</p> <p>A. Goin' Out of My Head</p> <p>B. Out of Place</p> <p>C. Have I Seen This Before?</p>
<p>Lesson 22 Literature The Narrator</p> <p>You Will</p> <ul style="list-style-type: none"> <li>Identify characteristics of the narrator and point of view from a specific passage;</li> <li>Rephrase or restate what the narrator shows or tells the reader;</li> <li>And draw inferences from what the narrator does and does not say, from the narrator's tone, and from the narrator's style.</li> </ul>	<p>Chapter 1 "High Hope and A Fixed Purpose"</p> <p>Chapter 2 "From Slavery to Freedom"</p> <p>Chapter 3 "The Plan Which I Adopted"</p>	<p>Video: When Darrell complains about reading, Mr. John has him listen to Frederick Douglass.</p> <p>Reading Material: Passages from Frederick Douglass and other writers of autobiographies, short stories, and novels.</p>	<p>The Narrator</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Who Is the Narrator?</li> <li>• Chapter 2 What the Narrator Chooses to Say</li> <li>• Chapter 3 Drawing Inferences</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Inspirational Perspective To Wit Unique Affirmation Reclusive Ascend Eloquence Equanimity Guileless Graffiti Prelude</p>	<p>Terminology: Advantage Autobiography Disembodied Fiction Nonfiction First Person Third Person Voice Instinctively Narration Narrative Predisposed Excerpt Frictional Forbad Gladdened Clarification Languid Secluded Spectacular Urchin Bestow</p>	<p>Appendix:</p> <p>A. A Voice Denied</p> <p>B. Unhappy With Huck</p> <p>C. Show and Tell</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 23 Literature You Will</p> <ul style="list-style-type: none"> <li>Infer information about characters and situations in a story;</li> <li>Infer information about characters and events from dialogue;</li> <li>And recognize details from a scene that support statements about characters, events, and relationships.</li> </ul>	<p>Chapter 1 "Soap Opera Addict" Chapter 2 "Beau Baxter's Lesson Beat" Chapter 3 "What's Gonna Happen?"</p>	<p>Video: Rhonda visits Mama who can't take her eyes off the "soaps" on her TV. Rhonda recognizes the story line. Reading Material: Passages from autobiographies, short stories, and novels.</p>	<p>Literature</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 People and Places</li> <li>Chapter 2 Dialogue</li> <li>Chapter 3 Supporting Details</li> <li>Appendix</li> </ul> <p>Terminology Continued: Stolid Presentable Differ Disgruntled Parallel Salvage Akimbo</p>	<p>Terminology: Collaborator Confiscate Attuned Commerce Subdued Strenuous Intervening Forestall Tumultuously Chauffeur Resignation Undulate Profess Restive Possessed</p>	<p>Appendix: A. Until the Next Time B. Dialogue Details C. Characters to Remember</p>
<p>Lesson 24 Literature Language Enrichment You Will</p> <ul style="list-style-type: none"> <li>Distinguish between literal and figurative language;</li> <li>Recognize metaphor, simile, and literal comparisons;</li> <li>Infer meaning from passages that use figurative language.</li> </ul>	<p>Chapter 1 "A Real Steamroller" "In The Land Of Dollars" Chapter 2 "W.E.B. DuBois Revisited" Chapter 3 "We Live Here, Too!"</p>	<p>Video: Darrell, Mr. John, and Charlie Kootz take on city hall with the help of W.E.B. DuBois. Reading Material: Passages from news articles, editorials, essays, short stories, and novels that make use of figurative language.</p>	<p>Language Enrichment</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Literal and Figurative Language</li> <li>Chapter 2 Metaphor and Simile</li> <li>Chapter 3 Repetition, Rhythm, and Rhyme</li> <li>Appendix</li> </ul> <p>Terminology Continued: Abysses Alliteration Amateur Contemplation Demolish Fratricidal Abeyance Sufficed Pilgrim Shadow Shade Repetition Rhyme Rhythm</p>	<p>Terminology: Allegations Demolish Distinguish Embellishment Enrichment Synod Figurative Literal Meteorite Unvarnished Turbulent Discern Explicit Implicit Implied Metaphor Retrospect Simile Transform Skirmish Façade Nimbus Vale Du Jour</p>	<p>Appendix: A. Lock, Stock, and Barrel B. Something Wrong in the Kitchen C. Poe's Plan</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 25 Literature Figurative Language You Will</p> <ul style="list-style-type: none"> <li>• Restate what is being compared in a figurative comparison;</li> <li>• State the main idea of a passage containing a figurative comparison;</li> <li>• And infer meaning from passages with figurative comparisons.</li> </ul>	<p>Chapter 1 "Checking Out Bugs" Chapter 2 "A Buggy Dream" Chapter 3 "Anne-in-the-Aisles" "The Litter Thief"</p>	<p>Video: Candy tell Rhonda the story of a man who undergoes a sudden change. Annie-in-the-Aisles discusses the business of parenting. Jol Holcombe discusses "invisible thieves." Reading Material: Passages from news articles, editorials, essays, short stories, and novels.</p>	<p>Figurative Language</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Apples and Oranges</li> <li>• Chapter 2 The Big Idea</li> <li>• Chapter 3 Hidden Meaning</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Unbeknownst Keener Pandora's Box</p>	<p>Terminology: Devour Marxist Jungian Emanate Celestial Ethereal Pursy Florid Hue Meridian Afflictive Sepulchre Extended Metaphor Non-returnable</p>	<p>Appendix: A. Kafka's Fairy Tale B. A Monster in the Next Room C. Room to Room</p>
<p>Lesson 26 Literature A Writer's Moves You will</p> <ul style="list-style-type: none"> <li>• Find relevant details about a character, scene, or situation;</li> <li>• Infer relationships among characters and situations;</li> <li>• And define difficult words, terms, or symbols from the context.</li> </ul>	<p>Chapter 1 "Study Their Best Moves" Chapter 2 "I Am an Invisible Man" Chapter 3 "Darrell Does a Nice Job"</p>	<p>Video: Mr. John gives Darrell a Lesson that helps him sort out his plans for the future. Reading Material: Passages from novels, short stories, and autobiographies.</p>	<p>A Writer's Moves</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Relevant Details</li> <li>• Chapter 2 Inferring relationships</li> <li>• Chapter 3 Difficult Words, Terms, and Symbols</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Contradictory Hibernation Ingenuity Suspended Animation</p>	<p>Terminology: Carapace Exodus Gruesome Quintessential Camaraderie Perspective Reptile Rupture Omen Motivation Ectoplasm Obligatory Instrumental Symbol</p>	<p>Appendix: A. From Riffs to Writing B. What Literature? C. Bumping into Symbols</p>
<p>Lesson 27 Literature Interpretation You Will</p> <ul style="list-style-type: none"> <li>• Identify basic features of a work in terms of the tone, style, and voices within it;</li> <li>• Compare and contrast characters and scenes;</li> <li>• And restate ideas directly stated or implied in a scene.</li> </ul>	<p>Chapter 1 "Bobby's Bad Attitude" "Stories Make You Feel" "Style" Chapter 2 No Video Chapter 3 "Lessons and Fires"</p>	<p>Video: Rhonda and Bobby have different ideas about whether Lessons are a help or a hindrance. Reading Material: Passages from novels, short stories, and autobiographies.</p>	<p>Interpretation</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Building Blocks</li> <li>• Chapter 2 Comparing Characters</li> <li>• Chapter 3 Meaning</li> <li>• Appendix</li> </ul> <p>Terminology Continued: Profligate Unsmirched Perpetuation Staple Formative Incorruptible Indispensable Compliance Dieffenbachia Meticulous</p>	<p>Terminology: Counterpart Insolent Terrestrial Department Laconic Allusion Strait Rejoinder Disconcerted Belie Prithee Anathema Catechize Fervid Sullen Vex Dissever Depravity Stratagems</p>	<p>Appendix: A. From Here To There B. A Better Place C. Lost Worlds</p>

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 28 Literature Putting It All Together You Will</p> <ul style="list-style-type: none"> <li>Analyze passages in terms of narrator, character, dialogue, action, setting, tone, and style.</li> </ul>	<p>Chapter 1 "Miss Jane Pittman" Chapter 2 "Writing In Dialect" Chapter 3 "Can I Write the Way I Talk?"</p>	<p>Video: Darrell and Martin have different ideas about what Darrell is reading and how Darrell himself should write. Reading Material: Passages from novels, short stories, and autobiographies.</p>	<p>Pulling It All Together</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 The Basics: Character Setting Plot Narrator</li> <li>Chapter 2 Looking For Connections</li> <li>Chapter 3 Listening to the Voices"</li> <li>Appendix</li> </ul> <p>Terminology Continued: Swathed Discourse Auditors Oratory Fain Omniscient Pathos Conspicuous Conjoined Spruce</p>	<p>Terminology: Ignominy Beadle Prefigure Puritan Embroidery Sumptuary Ponderous Bleared Optics Cloister Manifest Heterogeneous Visage Countenance Effectual Pallid Forlorn Sedate Singularly Scrivener, Lateral</p>	<p>Appendix A. Talking About Lessons B. Talking To Yourself C. Person To Person</p>
<p><b>READING 2 CORE SKILLS</b> Lesson 1 Reading Between the Lines You Will</p> <ul style="list-style-type: none"> <li>Identify main ideas;</li> <li>Read for details;</li> <li>Use context clues;</li> <li>Interpret figurative language;</li> <li>And distinguish abstract from concrete language.</li> </ul>	<p>Chapter 1 Video Lesson – Main Idea Chapter 2 Video Lesson – Context Clues Chapter 3 Video Lesson - Figurative Language Chapter 4 Video Lesson – Concrete/Abstract</p>	<p>Video: Readings from Edgar Allan Poe, Edna St Vincent Millay, William Faulkner, Joseph Campbell, and Langston Hughes; host Wally Amos.</p>	<p>Reading Between the Lines</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Finding the Main Idea</li> <li>Chapter 2 Using Context Clues</li> <li>Chapter 3 Understanding Figurative Language</li> <li>Chapter 4 Understanding the Concrete and the Abstract</li> </ul>	<p>Terminology: Main Idea Context Literal Figurative Figure of Speech Idiom Metaphor Simile Abstract Concrete</p>	
<p>Lesson 2 Main Idea You Will</p> <ul style="list-style-type: none"> <li>Identify unstated main ideas;</li> <li>Draw inferences and conclusions;</li> <li>Identify emphasis</li> <li>And summarize plot and meaning.</li> </ul>	<p>Chapter 1 Video Lesson – Interpretive Adventure" Chapter 2 Video Lesson – Inference/Conclusion Main Idea Chapter 3 Video Lesson – Details Chapter 4 Video Lesson – Emphasis Chapter 5 Video Lesson - Summarize</p>	<p>Video: Readings from Robert Frost, Sara Orne Jewett, and Eudora Welty; host Wally Amos.</p>	<p>Analyzing Literature</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Finding the Main Idea When It Is Not Directly Stated</li> <li>Chapter 2 Making Inferences</li> <li>Chapter 3 Identifying Details</li> <li>Chapter 4 Identifying Emphasis</li> <li>Chapter 5 Summarizing</li> </ul>	<p>Terminology: Interpretation Translate Conclusion Fact Inference Emphasis Summaries Plot</p>	



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 3 Tricks of the Writer's Trade You Will</p> <ul style="list-style-type: none"> <li>Analyze writer's motives and methods;</li> <li>Distinguish fact from opinion;</li> <li>Identify cause and effect;</li> <li>Compare and contrast ideas;</li> <li>And summarize.</li> </ul>	<p>Chapter 1 "Mark Twain" Video Lesson - Humor: Parody Chapter 2 Video Lesson - Fact and Opinion Chapter 3 Video Lesson - Compare and Contrast Chapter 4 Video Lesson - Cause and Effect</p>	<p>Video: Readings from Mark Twain, Ishmael Reed, Herman Melville, and a newspaper column; host Wally Amos.</p>	<p>Trick's of the Writer's Trade</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Writer's Motives and Methods</li> <li>Chapter 2 Fact and Opinion</li> <li>Chapter 3 Comparing and Contrasting</li> <li>Chapter 4 Cause and Effect</li> </ul>	<p>Terminology: Dialect Parody Persona Satire Opinion Comparison Contrast Cause Effect</p>	
<p>Lesson 4 Inside Authors and Characters You Will</p> <ul style="list-style-type: none"> <li>Analyze writers' purposes;</li> <li>Derive meaning from characterization;</li> <li>Derive meaning from style and tone;</li> <li>And recognize how rhythm, rhyme, alliteration, and repetition contribute to meaning.</li> </ul>	<p>Chapter 1 Video Lesson - Purpose Chapter 2 Video Lesson - Purpose Chapter 3 Video Lesson - Style Tone Chapter 4 Video Lesson - Rhythm/Rhyme Alliteration Repetition</p>	<p>Video: Readings from James Thurber, Leon Driskell, Robert Frost, and Ellen Goodman: host Wally Amos.</p>	<p>Inside Authors and Characters</p> <ul style="list-style-type: none"> <li>Introductions</li> <li>Chapter 1 Characterization and the Writer's Purpose</li> <li>Chapter 2 Characterization: The Writer's Techniques and Attitude</li> <li>Chapter 3 Style and Tone</li> <li>Chapter 4 Rhyme, Rhythm, Alliteration, and Repetition</li> </ul>	<p>Terminology: Characterization Theme Dialogue Point of View Colloquial Style Tone Alliteration Repetition</p>	
<p>Lesson 5 Charts, Graphs, Maps &amp; Cartoons You Will</p> <ul style="list-style-type: none"> <li>Find information or data in visual materials;</li> <li>And interpret visual materials.</li> </ul>	<p>Chapter 1 Video Lesson - Reading Five Chapter 2 Video Lesson - Maps/Globes Chapter 3 Video Lesson - Maps Chapter 4 Video Lesson - Graphs/Charts/Tables Chapter 5 Video Lesson - Charts</p>	<p>Video: Globes, maps, graphs, charts, tables, landsat photos; host Wally Amos.</p>	<p>Charts, Graphs, Maps &amp; Cartoons</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Global Maps</li> <li>Chapter 2 Maps: Scale, Legend, and Coordinates</li> <li>Chapter 3 Maps: Types of Maps, the Atlas</li> <li>Chapter 4 Graphs</li> <li>Chapter 5 Charts</li> </ul>	<p>Terminology: Equator Grid Hemispheres Latitudes Longitudes Prime Meridian Centimeter Coordinates Kilometer Legend Map Index Scale Axis Horizontal Vertical Columns Rows</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p><b>READING 2 SCIENCE 1</b> Lesson 6 Ecology You Will</p> <ul style="list-style-type: none"> <li>• Find main ideas;</li> <li>• Use context clues;</li> <li>• Distinguish cause and effect;</li> <li>• And draw inferences.</li> </ul>	<p>Chapter 1 Scientific Measurement Chapter 2 Ecology Chapter 3 Problems Chapter 4 Adaptation</p>	<p>Video: Visual materials and information about metric system, life cycles, ecological problems, and adaptation; host Pamela Lewis.</p>	<p>Ecology</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Scientific Measurement: The Metric System</li> <li>• Chapter 2 Ecology: Life Cycles</li> <li>• Chapter 3 Ecology: Problems</li> <li>• Chapter 4 Adaptation</li> </ul>	<p>Terminology: Centimeter Kilometer Meter Metric System Millimeter Biology Biological Ecology Ecosystem Food Web Photosynthesis Species Adaptation Natural selection Sequence</p>	
<p>Cellular Biology You Will</p> <ul style="list-style-type: none"> <li>• Find main idea;</li> <li>• Interpret visual materials;</li> <li>• Read for detail;</li> <li>• Compare and contrast information;</li> <li>• And identify sequences.</li> </ul>	<p>Chapter 1 Science Program 2 The Cell Chapter 2 Photosynthesis Chapter 3 Heredity Chapter 4 Scientific Classification</p>	<p>Video: Visual materials and information about cell theory, photosynthesis, reproduction, heredity, and classification systems; host Pamela Lewis.</p>	<p>Cellular Biology</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 The Cell</li> <li>• Chapter 2 Two Cell Processes: Photosynthesis and Reproduction</li> <li>• Chapter 3 Heredity</li> <li>• Chapter 4 Classification</li> </ul> <p>Terminology Continued: Recessive Genus Phylum Species Taxonomy</p>	<p>Terminology: Cell Chromosomes Colloid Cytoplasm Excrete Nucleus Organelles Chlorophyll Meiosis Mitosis DNA Genes Dominant Hybrid</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 8 Earth Science You Will</p> <ul style="list-style-type: none"> <li>• Interpret visual materials;</li> <li>• Read for detail;</li> <li>• Draw inferences;</li> <li>• Find unstated main ideas;</li> <li>• Recognize causes and effects;</li> <li>• Use context clues;</li> <li>• And distinguish fact from opinion.</li> </ul>	<p>Chapter 1 Science Program 3 Dynamic Earth Chapter 2 Forces That Change Chapter 3 The Rock Cycle Chapter 4 The Water Planet</p>	<p>Video: Visual materials and information about Earth's structures, plate tectonics, the rock cycle, types of rocks, and Earth's water; host Pamela Lewis, astronaut Dr. Kathryn Sullivan, marine biologist Dr. Sylvia Earle.</p>	<p>Earth Science</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Earth's Structure and Processes</li> <li>• Chapter 2 Internal Forces That Change the Surface of the Earth</li> <li>• Chapter 3 Types of Rocks and the Rock Cycle</li> <li>• Chapter 4 Earth, the Water Planet</li> </ul>	<p>Terminology: Geology Geography Hypothesis Mantle Silicon Theory Convection Fault Magma Plate Tectonics Theory Seismology Transform Fault Igneous Metamorphic Principle Sedimentary Evaporation Geography Hydrologic Cycle Oceanography Transpiration</p>	
<p>Lesson 9 Atmosphere &amp; Space You Will</p> <ul style="list-style-type: none"> <li>• Find main ideas</li> <li>• Draw inferences and conclusions;</li> <li>• Summarize written material;</li> <li>• Use context clues to define words;</li> <li>• Read for detail;</li> <li>• Identify sequences;</li> <li>• Identify cause and effects;</li> <li>• And compare and contrast.</li> </ul>	<p>Chapter 1 Science Program Four Chapter 2 Climates Chapter 3 The Inner Solar System Earth Mercury, Venus, Mars Chapter 4 Outer Solar System Jupiter Saturn Uranus Neptune Pluto</p>	<p>Video: Visual material and information about Earth's atmosphere, climate, and weather, and about the other planets in the solar system; host Pamela Lewis.</p>	<p>Atmosphere and Space</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 The Composition and Structure of the Earth's Atmosphere</li> <li>• Chapter 2 Air Pressure, Winds, and Climate</li> <li>• Chapter 3 Our Solar System, the Inner Planets</li> <li>• Chapter 4 Our Solar System, the Outer Planets</li> </ul>	<p>Terminology: Mesosphere Ozone Stratosphere Thermosphere Troposphere Barometer Doldrums Leeward Craters Density Mass Orbit Asteroids Light Year Satellites</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
Lesson 10 Atoms and Chemistry You Will <ul style="list-style-type: none"> <li>• Find main ideas;</li> <li>• Draw inferences;</li> <li>• Compare and contrast;</li> <li>• Identify cause and effect;</li> <li>• Infer information from models;</li> <li>• And identify sequences.</li> </ul>	Chapter 1 Science Program Five Chapter 2 Nuclear Fission Chapter 3 Radioactivity Chapter 4 Chemical Elements	Video: Visual materials and information about atomic theory, fission, fusion, nuclear energy, radioactivity, and the chemistry of elements, compounds, and mixtures; host Pamela Lewis and physicist Shelton Glashow.	Atoms and Chemistry <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 The Atom</li> <li>• Chapter 2 Fission and Fusion</li> <li>• Chapter 3 Radioactivity</li> <li>• Chapter 4 Chemical Elements, Compounds, and Mixtures</li> </ul>	Terminology: Atom Electron Element Matter Neutron Nucleus Proton Deuterium Fission Fusion Isotope Uranium Radiation Radioactivity Radioactive Compound Element Mixture Model	
Lesson 11 Physics You Will <ul style="list-style-type: none"> <li>• Find main ideas;</li> <li>• Use context clues;</li> <li>• Draw inferences;</li> <li>• Compare and contrast;</li> <li>• Identify sequences;</li> <li>• And distinguish fact from theory and hypothesis.</li> </ul>	Chapter 1 Science Program Six Electricity Chapter 2 Magnetism Chapter 3 Matter Chapter 4 Motion	Video: Visual presentations and information about electricity, magnetism, electromagnets, states of matter, and Newton's Laws of Motion; host Pamela Lewis and physicist Dr. Phillip Morrison.	Physics <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Electricity</li> <li>• Chapter 2 Magnets and Magnetism</li> <li>• Chapter 3 Matter</li> <li>• Chapter 4 Motion</li> </ul> Force = mass x acceleration	Terminology: Circuit Conductor Electric Charge Electric Current Insulator Electromagnet Force Field Magnetic Field Magnetic Pole Matter Molecule Plasma Volume Force Friction Gravity Inertia Law	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p><b>READING 2 HISTORY 1</b> Lesson 12 Early American History You Will</p> <ul style="list-style-type: none"> <li>• Interpret graphs and charts;</li> <li>• Identify sequences;</li> <li>• Recognize cause and effects;</li> <li>• Use context clues to define words;</li> <li>• Distinguish fact from opinion;</li> <li>• And judge the relative importance of events.</li> </ul>	<p>Chapter 1 Early Europeans and Their Forerunners Chapter 2 The Puritans and the Salem Witch Hunts Chapter 3 Successful Colonies and the Growing Strife with England Chapter 4 The Beginnings of Hostilities and the Revolutionary War Chapter 5 Peace and the Beginning of the New Nation</p>	<p>Video: Visual materials and information about explorations of American colonization, the Revolutionary War, and the start of a new government; host Wayne Bryan.</p>	<p>Early American History</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Early Europeans and Their Forerunners</li> <li>• Chapter 2 The Puritans and the Salem Witch Hunts</li> <li>• Chapter 3 Successful Colonies and the Growing Strife with England</li> <li>• Chapter 4 The Beginnings of Hostilities and the Revolutionary War</li> <li>• Chapter 5 Peace and the Beginning of the New Nation</li> </ul>	<p>Terminology: Colonize Dependency Doublet Immunity Joint Stock Venture Nomadic People Puritanism Intolerant Pilgrims Puritanism Infamous Mercantilism Abolish Despotism Evince Unalienable Usurpation Anarchy Aristocrat Federalists</p>	
<p>Lesson 13 Revolution and Civil War You Will</p> <ul style="list-style-type: none"> <li>• Interpret visual material;</li> <li>• Identify sequences;</li> <li>• Determine causes and effects;</li> <li>• Draw inferences</li> <li>• And compare and contrast situations/events.</li> </ul>	<p>Chapter 1 Expansion and Politics Following the Revolutionary War, 1791 – 1803 Chapter 2 The Louisiana Purchase, Humanitarian Problems, and Continued Expansion, 1803 – 1848 Chapter 3 The Roots of Slavery, Debates over Slavery, and the Road to the Civil War, 1848 – 1861 Chapter 4 The Civil War and Reconstruction, 1861 - 1877</p>	<p>Video: Visual materials and information about the formation of the U.S. government, the Louisiana Purchase, the relations between the U.S. government and Mexico, the relations between the U.S. government and Native Americans, the Civil War, and Reconstruction; host Wayne Bryan.</p>	<p>Revolution &amp; Civil War</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Expansion and Politics Following the Revolutionary War, 1791 – 1803</li> <li>• Chapter 2 The Louisiana Purchase, Humanitarian Problems, and Continued Expansion, 1803 – 1848</li> <li>• Chapter 3 The Roots of Slavery, Debates over Slavery, and the Road to the Civil War, 1848 – 1861</li> <li>• Chapter 4 The Civil War and Reconstruction, 1861 - 1877</li> </ul>	<p>Terminology: Federalists Inaugurated Aristocrat Turbulent Trickle – Down Economics Faction Spoils System Exploitation Manifest Destiny Oligarchy Paranoid Abolitionists Demeaning Barbarism Inflammatory Emancipation Proclamation Reconstruction Carpet Baggers Scalawags</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 14 Industrial Revolution &amp; Depression You Will</p> <ul style="list-style-type: none"> <li>• Draw inferences;</li> <li>• Determine the relative importance of information;</li> <li>• Identify causes and effects;</li> <li>• Distinguish fact from opinion;</li> <li>• Interpret visual material;</li> <li>• And determine sequence.</li> </ul>	<p>Chapter 1 The Beginning of the Industrial Revolution and Some of Its Effects Chapter 2 More on the Industrial Revolution and Its Effects; Some Reform Movements Chapter 3 The Spanish American War, Attempted Isolationism and Neutrality, and World War 1 Chapter 4 Postwar Growth and Consumption, the Great Depression, and Efforts to Combat It</p>	<p>Video: Visual materials and information about the Industrial Revolution, various reform movements, the Spanish-American War, World War 1, post war growth, and the Great Depression; host Wayne Bryan.</p>	<p>Industrial Revolution &amp; Depression</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 The Beginning of the Industrial Revolution and Some of Its Effects</li> <li>• Chapter 2 More on the Industrial Revolution and Its Effects; Some Reform Movements</li> <li>• Chapter 3 The Spanish American War, Attempted Isolationism and Neutrality, and World War 1</li> <li>• Chapter 4 Postwar Growth and Consumption, the Great Depression, and Efforts to Combat It</li> </ul>	<p>Terminology: Industrial Espionage Plight Atrocity Colossus Disparity Fledging Laissez Faire Monopoly Suffrage Trusts Western Hemisphere Sensationalist Isthmus Isolationism Neutral Position Surreal Doughboys Treaty of Versailles Inflated Economic Glut Depression Electorate CCC, FDIC, TVA, and WPA Creeping Socialization Capitalism Bureaucracy</p>	
<p>Lesson 15 World War II &amp; the Cold War You Will</p> <ul style="list-style-type: none"> <li>• Find main ideas;</li> <li>• Determine causes and effects;</li> <li>• Draw inferences;</li> <li>• And recognize differing points of view.</li> </ul>	<p>Chapter 1 Events Preceding World War II Chapter 2 World War II Chapter 3 The United States Following World War II Chapter 4 Fighting the Spread of Communism</p>	<p>Video: Visual materials and information about World War II, post war growth, and post war foreign veteran policy; host Wayne Bryan.</p>	<p>World War II &amp; the Cold War</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Events Preceding World War II</li> <li>• Chapter 2 World War II</li> <li>• Chapter 3 The United States Following World War II</li> <li>• Chapter 4 Fighting the Spread of Communism</li> </ul> <p>Terminology Continued: Baby Boom Cold War Containment G. I. Bill Iron Curtain McCarthyism Red Scare Satellite Nation Domino Effect Nationalize</p>	<p>Terminology: Aryan Blitzkrieg Fascism Genocide Gestapo Inflation Luftwaffe Mein Kampf Nazi Reparation Totalitarianism Axis Powers D-Day Enola Gay Kamikaze Manhattan Project Pearl Harbor V-E Day Atlantic Charter CIA</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Lesson 16 Post War Domestic Politics You Will</p> <ul style="list-style-type: none"> <li>Determine meaning from context;</li> <li>Draw inferences;</li> <li>Identify causes and effects;</li> <li>Judge the relative importance of events;</li> <li>And organize material according to time sequence.</li> </ul>	<p>Chapter 1 The Growth of Executive Power Chapter 2 The Civil Right Movement Chapter 3 The Vietnam Conflict Chapter 4 A President Resigns</p>	<p>Video: Visual materials and information about changes in mass communication and political elections, the civil rights movement, Watergate, and the equal rights movement; host Wayne Bryan.</p>	<p>Post War Domestic Politics</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 The Growth of Executive Power</li> <li>Chapter 2 The Civil Right Movement</li> <li>Chapter 3 The Vietnam Conflict</li> <li>Chapter 4 A President Resigns</li> </ul> <p>Terminology Continued: War on Poverty ERA Executive Privilege Inflation Subpoena Watergate</p>	<p>Terminology: Balanced Budget Hot Line Mass Communication Military - Industrial Complex Recession Desegregation Freedom Riders Harlem Little Rock, Arkansas NAACP Segregation Watts Agent Orange Kent State Napalm Nuke Silent Majority</p>	
<p><b>WRITING</b> Spelling Lesson 1 You Will</p> <ul style="list-style-type: none"> <li>Use "s" or "es" to form plurals of words;</li> <li>Form plural of words ending in "y";</li> <li>Form plurals of words ending in "f" or "fe";</li> <li>Add suffixes beginning with vowels to words;</li> <li>Add suffixes beginning with consonants to words;</li> <li>And add common prefixes to words.</li> </ul>	<p>Chapter 1 Plurals Using s or es Chapter 2 Plurals of Words Ending in y, Irregular Plurals Chapter 3 Plurals of Words ending in f or fe Chapter 4 Plurals of Words Ending in o Chapter 5 Adding Suffixes Chapter 6 Adding Prefixes</p>	<p>Video: Mrs. Johnson, Sonya's boss, tells Sonya she must improve her spelling. Arthur, who is writing a Lesson on writing, teaches Sonya a way to remember words. He and Mrs. Johnson teach her basic rules for forming plurals and for adding suffixes and prefixes to words.</p>	<p>Spelling</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Plurals Using s or es</li> <li>Chapter 2 Plurals of Words Ending in y, Irregular Plurals</li> <li>Chapter 3 Plurals of Words ending in f or fe</li> <li>Chapter 4 Plurals of Words Ending in o</li> <li>Chapter 5 Adding Suffixes</li> <li>Chapter 6 Adding Prefixes</li> </ul>	<p>Terminology: Plural Accent Root Syllable Suffix Prefix</p>	
<p>Mechanics Lesson 2 You Will</p> <ul style="list-style-type: none"> <li>Capitalize proper nouns;</li> <li>Recognize other situations requiring capitalization;</li> <li>Use periods, question marks, and exclamation marks;</li> <li>Use commas to separate items in a series;</li> <li>Use commas to set off nonessential information;</li> <li>Use commas between main clauses and compound sentences;</li> <li>And use commas in other appropriate situations.</li> </ul>	<p>Chapter 1 Basic Rules for Capitalization Chapter 2 Additional Rules for Capitalization Chapter 3 Rules for Ending Punctuation Chapter 4 Rules for Commas, Part 1 Chapter 5 Rules of Commas, Part 2</p>	<p>Video: Arthur explains basic rules for capitalization to Sonya. During an outing, they become lost because of a missing comma in their directions. Arthur teaches Sonya how punctuation helps the reader.</p>	<p>Mechanics</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Basic Rules for Capitalization</li> <li>Chapter 2 Additional Rules for Capitalization</li> <li>Chapter 3 Rules for Ending Punctuation</li> <li>Chapter 4 Rules for Commas, Part 1</li> <li>Chapter 5 Rules of Commas, Part 2</li> </ul>	<p>Terminology: Articles Capital Letter Proper Noun Relationship Words Titles Exclamation Point Imperative Sentence Indirect Question Interrogatory Sentence Period Question Mark Appositive Comma Non-Restrictive Clause Restrictive Clause Compound Sentence Conjunctive</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Nouns/Verbs Lesson 3 You Will</p> <ul style="list-style-type: none"> <li>Identify the roles of nouns in sentences;</li> <li>Identify the roles of verbs in sentences;</li> <li>Use “helper verbs” to form various tenses;</li> <li>Avoid common misuses of words mistaken for verbs;</li> <li>And use correctly “sit,” “set,” “lie,” “lay,” “raise,” and “rise.”</li> </ul>	<p>Chapter 1 Types of Nouns Chapter 2 The Role of Verbs Chapter 3 Irregular Verbs Chapter 4 Helper Verbs Chapter 5 Confusing Verbs</p>	<p>Video: To move past his “writer’s block,” Arthur talks out his ideas about the roles of nouns and verbs. Arthur shows common errors made with verbs and with words that sound like verbs. He discusses confusing pairs of verbs such as “sit/set,” “lie/lay,” and “raise/rise.”</p>	<p>Nouns and Verbs</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Types of Nouns</li> <li>Chapter 2 The Role of Verbs</li> <li>Chapter 3 Irregular Verbs</li> <li>Chapter 4 Helper Verbs</li> <li>Chapter 5 Confusing Verbs</li> </ul>	<p>Terminology: Abstract Noun Collective Noun Compound Noun Concrete Noun Direct Object Indirect Object Indirect Object Noun State of Being Tense Verb</p>	
<p>Subject Lesson 4 You Will</p> <ul style="list-style-type: none"> <li>Select subjects and verbs that agree in number;</li> <li>Select verbs for subjects connected by “either/or,” “neither/nor,” or “but also”;</li> <li>Select verbs for subjects that are collective nouns;</li> <li>Select verbs for sentences beginning with “there” or “here”;</li> <li>Select verbs for “each,” “no one,” “everybody,” and “nobody”;</li> <li>And select verb for subjects with positive and negative elements</li> </ul>	<p>Chapter 1 Subject-Verb Agreement Chapter 2 Collective Subjects Chapter 3 Identifying Subjects in Sentences That Begin with Special Words Chapter 4 Agreement for First, Second, and Third Person Writing</p>	<p>Video: Arthur explains rules for subject-verb agreement. At work, Sonya and coworker Freddy apply them as they write a manual for employees. Later, Freddy’s manual helps avert a disaster. Sonya’s boss Mrs. Johnson asks her to write about the event. They generate material using “who, what, when, and why.”</p>	<p>Agreement</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Subject-Verb Agreement</li> <li>Chapter 2 Collective Subjects</li> <li>Chapter 3 Identifying Subjects in Sentences That Begin with Special Words</li> <li>Chapter 4 Agreement for First, Second, and Third Person Writing</li> </ul>	<p>Terminology: Clause (Dependent) Number Subject</p>	
<p>Pronouns Lesson 5 You Will</p> <ul style="list-style-type: none"> <li>Select appropriate subject and object forms of pronouns;</li> <li>Select correct pronouns to refer to compound subjects and objects;</li> <li>Use “who,” “which,” and “that” correctly;</li> <li>Use possessive pronouns correctly;</li> <li>Distinguish possessive pronouns from contraction sound-alikes;</li> <li>Use “these,” “those,” and “them” correctly.</li> </ul>	<p>Chapter 1 Subject and Object Pronouns Chapter 2 Divide and Conquer Strategy for Pronouns Chapter 3 Singular and Plural Pronouns Chapter 4 Pronouns and Contractions</p>	<p>Video: Arthur explains uses and forms of pronouns. He tells Sonya when to use “who,” “which,” and “that.” He also discusses special pronouns such as “anybody” and “many” as well as incorrect forms of pronouns such as “hiself” or “theirselves.”</p>	<p>Pronouns</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Subject and Object Pronouns</li> <li>Chapter 2 Divide and Conquer Strategy for Pronouns</li> <li>Chapter 3 Singular and Plural Pronouns</li> <li>Chapter 4 Pronouns and Contractions</li> </ul>	<p>Terminology: Antecedent Direct Object Indirect Object Object Pronoun Pronoun Subject Pronoun Gender Number Plural Pronoun Possessive Singular Pronoun Contraction</p>	



Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Modifiers Lesson 6 You will</p> <ul style="list-style-type: none"> <li>Identify the function of modifiers;</li> <li>Use “good” and “well” correctly;</li> <li>Distinguish between “real/very,” “fewer/less,” and “many/much”;</li> <li>Identify and correct double negatives;</li> <li>Use “barely,” “scarcely,” and “hardly” correctly;</li> <li>Use the appropriate endings for “more” and “most” for comparisons;</li> <li>Form the possessive for nouns.</li> </ul>	<p>Chapter 1 Good and Well Chapter 2 Rules for Using Adverbs and Adjectives Chapter 3 Confusing Modifiers Chapter 4 Comparative Modifiers Chapter 5 Possessive Modifiers</p>	<p>Video: Arthur helps Sonya distinguish “good” from “well.” Mrs. Johnson points out exceptions to Arthur’s rules. As Arthur helps Sonya edit an invitation for the company talent show, he explains commonly confused modifiers and double negatives. Mrs. Johnson discusses correct forms for comparing items.</p>	<p>Modifiers</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Good and Well</li> <li>Chapter 2 Rules for Using Adverbs and Adjectives</li> <li>Chapter 3 Confusing Modifiers</li> <li>Chapter 4 Comparative Modifiers</li> <li>Chapter 5 Possessive Modifiers</li> </ul>	<p>Terminology: Modifier Adjective Adverb Comparative Superlative Possessive Modifier</p>	
<p>Sentences Lesson 7 You Will</p> <ul style="list-style-type: none"> <li>Recognize and correct run-on sentences;</li> <li>Recognize and correct sentence fragments;</li> <li>Place modifiers close to what they modify for clarity;</li> <li>Use parallel construction;</li> <li>Edit sentences to combine ideas;</li> <li>And edit writing to omit the irrelevant or unnecessary.</li> </ul>	<p>Chapter 1 Run-on Sentences Chapter 2 Sentence Fragments Chapter 3 Common Errors Chapter 4 Logical Sentences</p>	<p>Video: Arthur and Sonya edit an article for the company newsletter. They correct run-on sentences. Freddy and Mrs. Johnson find misplaced modifiers. Arthur discusses principles of good writing and specific problems writers look for as they edit.</p>	<p>Sentences</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Run-on Sentences</li> <li>Chapter 2 Sentence Fragments</li> <li>Chapter 3 Common Errors</li> <li>Chapter 4 Logical Sentences</li> </ul>	<p>Terminology: Run-on Sentence Sentence Fragment Nonparallel Construction Parallel Construction</p>	
<p>Organization Lesson 8 You Will</p> <ul style="list-style-type: none"> <li>Identify main ideas in paragraphs;</li> <li>Select effective topic sentences;</li> <li>Order sentences in paragraphs for clarity;</li> <li>Omit irrelevant information;</li> <li>Reduce wordiness;</li> <li>And use appropriate transitional words and phrases.</li> </ul>	<p>Chapter 1 Main Ideas, Topic Sentences, and Ordering Chapter 2 Relevance Chapter 3 Wordiness Chapter 4 Transitional Words</p>	<p>Video: When Arthur uses a recipe with the steps out of order, he learns the importance of organization. Under pressure to write about his publisher in his Lesson, Arthur includes his story in a chapter on irrelevant material. Mrs. Johnson helps Sonya edit letters and other work related documents.</p>	<p>Organization</p> <ul style="list-style-type: none"> <li>Introduction</li> <li>Chapter 1 Main Ideas, Topic Sentences, and Ordering</li> <li>Chapter 2 Relevance</li> <li>Chapter 3 Wordiness</li> <li>Chapter 4 Transitional Words</li> </ul>	<p>Terminology: Chronology Unity Spatial Irrelevance Inverted Pyramid Wordiness Transition Words and Phrases</p>	

Title/Objectives	Video Highlights	Life Problem	Chapters	Summary	Appendix
<p>Style Lesson 9 You Will</p> <ul style="list-style-type: none"> <li>• Reduce redundancy;</li> <li>• Select the correct homonym;</li> <li>• Edit for active voice;</li> <li>• Eliminate “it,” “you,” and “they” when there is no clear antecedent;</li> <li>• And distinguish between commonly confused words.</li> </ul>	<p>Chapter 1 Cutting Useless and Unnecessary Words Chapter 2 Homonyms Chapter 3 Writing Forceful Sentences Chapter 4 Common Word Errors</p>	<p>Video: Arthur tells Sonya that a clear, uncluttered writing style is preferred. He provides editing tips. Mrs. Johnson and Arthur’s publisher both edit letters in which writers have confused one word or another. Mrs. Johnson helps Freddy strengthen a letter by editing for active voice.</p>	<p>Style</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Cutting Useless and Unnecessary Words</li> <li>• Chapter 2 Homonyms</li> <li>• Chapter 3 Writing Forceful Sentences</li> <li>• Chapter 4 Common Word Errors</li> </ul>	<p>Terminology: Redundant Homonyms Active Voice Passive Voice</p>	
<p>Review Lesson 10 You Will</p> <ul style="list-style-type: none"> <li>• Review ways to correct run-on sentences and fragments;</li> <li>• Review rules for subject-verb agreement;</li> <li>• Review guidelines for forming tenses correctly;</li> <li>• Review ways of find and omit irrelevant information;</li> <li>• Review how to write effective topic sentences;</li> <li>• Review ways to order and connect information;</li> <li>• And review rules for correct usage.</li> </ul>	<p>Chapter 1 Review of Run-ons and Fragments Chapter 2 Review of Important Mechanics Chapter 3 Review of Main Ideas and Supporting Details Chapter 4 Review of Use of Modifiers</p>	<p>Video: As Sonya helps Arthur with the final revisions of his Lesson, they review Arthur’s advice to writers. At Sonya’s workplace, both Sonya and Mrs. Johnson are promoted. They recall what Sonya has learned on the job about writing. Arthur meets his publishers’ deadline. Freddy finds he too, has been promoted.</p>	<p>Review</p> <ul style="list-style-type: none"> <li>• Introduction</li> <li>• Chapter 1 Review of Run-ons and Fragments</li> <li>• Chapter 2 Review of Important Mechanics</li> <li>• Chapter 3 Review of Main Ideas and Supporting Details</li> <li>• Chapter 4 Review of Use of Modifiers</li> </ul>	<p>Terminology: None Presented</p>	