

Financial Algebra focuses on real-world financial literacy, personal finance, and business subjects. Students apply what they learned in Algebra 1 and Geometry to topics including personal income, taxes, checking and savings accounts, credit, loans and payments, car leasing and purchasing, home mortgages, stocks, insurance, and retirement planning.

Students then extend their investigations using more advanced mathematics, such as systems of equations (when studying cost and profit issues) and exponential functions (when calculating interest problems).

This course is built to state standards as they apply to Financial Algebra and adheres to the National Council of Teachers of Mathematics' (NCTM) Problem Solving, Communication, Reasoning, and Mathematical Connections Process standards.

Length: Two semesters

### UNIT 1: WHAT IS MONEY?

- Lesson 1: Money Defined
- Lesson 2: How Money Is Created
- Lesson 3: Inflation and Recession
- Lesson 4: The National and Global Debt
- Lesson 5: Other Forms of Currency
- Lesson 6: What Is Money? Wrap-Up

### UNIT 2: COST OF LIVING AND BUDGET

- Lesson 1: Types of Wages
- Lesson 2: Compensation Packages
- Lesson 3: Piece Rate
- Lesson 4: Linear Equations and Wages
- Lesson 5: Percentages and Commission
- Lesson 6: Take-Home Pay: Required Deductions
- Lesson 7: Take-Home Pay: Optional Deductions
- Lesson 8: Income and Career
- Lesson 9: Cost of Living and Budget
- Lesson 10: Income and Budgeting Wrap-Up

### UNIT 3: INCOME TAX

- Lesson 1: Taxable Income
- Lesson 2: Itemized Deductions
- Lesson 3: Tax Brackets
- Lesson 4: Submitting Your Tax Form
- Lesson 5: Income Tax Wrap-Up

### UNIT 4: CHECKING AND SAVINGS

- Lesson 1: Simple Interest
- Lesson 2: Exponential Growth
- Lesson 3: Compound Interest
- Lesson 4: The Rule of 72
- Lesson 5: Checking Accounts
- Lesson 6: Balancing Your Checkbook
- Lesson 7: Comparing Checking Accounts
- Lesson 8: Savings Accounts

- Lesson 9: Comparing Savings Accounts
- Lesson 10: Checking and Savings Wrap-Up

## **UNIT 5: PURCHASING AND CREDIT**

- Lesson 1: Sales Tax
- Lesson 2: Coupons, Rebates, and Sales
- Lesson 3: Marketing
- Lesson 4: Credit Cards
- Lesson 5: Calculating Credit Card Interest
- Lesson 6: Tracking Payments and Purchases
- Lesson 7: Comparing Credit Cards
- Lesson 8: Credit Scores
- Lesson 9: Bankruptcy
- Lesson 10: Purchasing and Credit Wrap-Up

## **UNIT 6: LOANS AND PAYMENTS**

- Lesson 1: Single and Payday Loans
- Lesson 2: Installment Loans and Layaway
- Lesson 3: Monthly Payment
- Lesson 4: Loan Pre-Approvals
- Lesson 5: Deferred Payments
- Lesson 6: Paying Off
- Lesson 7: Prepayment
- Lesson 8: Loans and Payments Wrap-Up

## **UNIT 7: SEMESTER 1 REVIEW AND EXAM**

- Lesson 1: Semester 1 Review and Exam

## **UNIT 8: CAR OWNERSHIP**

- Lesson 1: Car Leasing
- Lesson 2: Car Renting and Sharing
- Lesson 3: Car Dealers
- Lesson 4: Payments
- Lesson 5: Dealer Incentives
- Lesson 6: Owning and Operating
- Lesson 7: Equity and Depreciation
- Lesson 8: Planning a Trip
- Lesson 9: Total Trip Expenses
- Lesson 10: Car Ownership Wrap-Up

## **UNIT 9: HOME OWNERSHIP**

- Lesson 1: Selecting a House: Fairly Priced?
- Lesson 2: Mortgages: Fixed Rate
- Lesson 3: Mortgages: Variable Rate
- Lesson 4: Multiple Mortgages and Refinancing
- Lesson 5: Discounts
- Lesson 6: Balloon Mortgages
- Lesson 7: Additional Costs: Fees
- Lesson 8: Additional Costs: Escrow
- Lesson 9: Total Housing Payments
- Lesson 10: Paying Off a Mortgage
- Lesson 11: Home Ownership Wrap-Up

## UNIT 10: INSURANCE AND RETIREMENT

- Lesson 1: Car Insurance Premiums
- Lesson 2: Suggested Premium
- Lesson 3: Property and Renters Insurance
- Lesson 4: Life Insurance
- Lesson 5: Calculating Life Insurance Premiums
- Lesson 6: Retirement Accounts
- Lesson 7: Insurance and Retirement Wrap-Up

## UNIT 11: INVESTMENTS

- Lesson 1: CDs
- Lesson 2: Annuities
- Lesson 3: Bonds
- Lesson 4: Stocks
- Lesson 5: The Stock Market
- Lesson 6: Prediction
- Lesson 7: Periodic Investment
- Lesson 8: Retirement and Periodic Investment
- Lesson 9: Individual Net Worth
- Lesson 10: Investments Wrap-Up

## UNIT 12: BUSINESS

- Lesson 1: Cost and Revenue Functions
- Lesson 2: Profit
- Lesson 3: Solving Systems of Equations
- Lesson 4: Matrices
- Lesson 5: Factors Affecting Business
- Lesson 6: Maximizing Revenue or Minimizing Cost
- Lesson 7: Running a Business
- Lesson 8: Storage, Inventory, and Other Business Concerns
- Lesson 9: Business Wrap-Up

## UNIT 13: SEMESTER 2 REVIEW AND EXAM

- Lesson 1: Semester 2 Review and Exam