#### **ECSD Consumer Math**

## Scope and Sequence, Content Standards and Learning Targets



The major emphasis for this course should be on personal finance; Chapters 1 – 8 would satisfy this requirement.

Chapters 9 – 14 can be covered at the teacher's discretion with time permitting. The material concerns owning a business and many students may not relate.

# Consumer Math

# Scope and Sequence



Textbook Reference Thomson (South Western) Business Math 16th Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chap	ter 1 – Gross Pay	
<ul> <li>1.1 Hourly Pay and Salary</li> <li>Calculate gross pay for hourly-rate employees</li> <li>Calculate gross pay for salaried employees</li> <li>1.2 Average Pay</li> <li>Calculate simple averages</li> <li>Calculate averages from grouped data</li> <li>Find the unknown item in a set of data</li> <li>1.3 Regular and Overtime Pay</li> <li>Compute overtime pay rates</li> <li>Calculate regular and overtime pay</li> <li>1.4 Commission</li> <li>Calculate straight commission earnings</li> <li>Calculate commission earnings based on quota</li> <li>Calculate graduated commission earnings</li> <li>Find the rate of commission</li> <li>1.5 Other Wage Plans</li> <li>Calculate gross pay for piece-rate employees</li> <li>Calculate gross pay for tip employees</li> <li>Calculate gross pay for tip employees</li> </ul>	1.EC.1 Identify and calculate various forms of income.	A1: a – e A2: a – g A3: a, b

Textbook Reference Thomson (South Western) Business Math 16th Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
2.1 Deductions from Gross Pay  • Find federal withholding tax deductions  • Calculate social security and Medicare tax deductions  • Calculate total deductions and net pay  2.2 Benefits and Job Expenses  • Find total job benefits  • Find net job benefits	1.EC.1 Identify and calculate various forms of income.  (W-4 forms are not mentioned in the text and should be added to the section on income tax withholdings.)  1.EC.2 Identify and understand required income withholdings.	A1: e A3: b A1: a – e A2: a – d A3: a, b
Compare the net job benefits of jobs  2.3 Federal Income Taxes     Calculate adjusted gross income and taxable income     Calculate the income tax due     Calculate the income tax refund for single dependents  2.4 State and City Income Taxes     Calculate state and city income taxes using a flat tax rate     Calculate state and city income taxes using a graduated tax rate table	1.EC.4 Identify and understand employee benefits.	A1: a, b A2: a A3: a, b
2.5 Cash receipts and Payments Records  • Keep a cash receipts record  • Keep a columnar cash payments record  2.6 Budgets  • Calculate the percent of income spent on expenses  • Prepare a budget	1.EC.5 Develop and follow a balanced budget	A1: a, b A2: a, b, c A3: a, b

Textbook Reference Thomson (South Western) Business Math 16th Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapter	3 – Banking Services	
<ul> <li>3.1 Checking Accounts</li> <li>Prepare a deposit slip</li> <li>Record entries in a check register</li> <li>3.2 Electronic Banking</li> <li>Record electronic banking transactions</li> <li>Find account balance when banking electronically</li> <li>3.3 Online Banking</li> <li>Calculate account balance needed to make online payments</li> <li>3.4 Check Register Reconciliation</li> <li>Reconcile a bank statement</li> <li>Reconcile and correct a check register</li> <li>3.5 Other Reconciliation Problems</li> <li>Reconcile a checking account with outstanding transactions and other errors</li> <li>3.6 Savings Accounts</li> <li>Calculate simple interest on savings deposits</li> <li>Calculate compound interest on savings deposits</li> <li>Calculate interest using a compound interest table</li> <li>3.7 Money Market and CD Accounts</li> <li>Calculate interest earned on special savings accounts</li> <li>Calculate the penalty for early withdrawals from CD accounts</li> <li>Calculate the penalty for early withdrawals from CD accounts</li> </ul>	1.EC.3 Manage checking and savings accounts.	A1: a – h A2: a – f A3: a – d

<u>Textbook Reference</u> Thomson (South Western) Business Math 16 <sup>th</sup> Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapter 4 –	Loans and Credit Cards	
<ul> <li>4.1 Promissory Notes</li> <li>Calculate interest on interest-bearing promissory notes</li> <li>Calculate interest using the exact interest method</li> <li>Calculate interest using the ordinary interest method</li> <li>Calculate the rate of interest</li> </ul>	2.EC. 2 Understand charge accounts and credit cards and calculate their related costs.      Bankruptcy and credit score are not mentioned in the text and should be added.	A1: a – e A2: a, b A3: a – e
<ul> <li>4.2 Discounted Promissory Notes</li> <li>Calculate the interest and proceeds for discounted promissory notes</li> <li>Calculate the true rate of interest on a discounted promissory note</li> </ul>	2.EC.3 Describe the various types of loans and calculate their related costs.	A1: a – f A2: a – e A3: a, b
<ul> <li>4.3 Interest Tables</li> <li>Calculate interest using simple interest tables</li> <li>Find the due date of a note</li> <li>Find the number of days between dates</li> </ul> 4.4 Installment Loans <ul> <li>Calculate the installment price and finance charge on an installment plan purchase</li> <li>Calculate the number and amount of monthly payments</li> <li>Calculate the interest, principal payment, and new balance on an installment loan</li> </ul>		
<ul> <li>4.5 Early Loan Repayments</li> <li>Calculate finance charges on Rule of 78 loans</li> <li>Calculate early loan repayment amounts on Rule of 78 loans</li> <li>4.6 Annual Percentage Rates</li> <li>Calculate the APR on a loan</li> </ul>		
4.7 Credit Card Costs  Identify important information found on credit card statements  Verify transactions on credit card statements  Calculate the cost of using a credit card		
<ul> <li>4.8 Credit Card Finance Charges</li> <li>Calculate finance charges using previous balance method</li> <li>Calculate finance charges using adjusted balance method</li> <li>Calculate finance charges using average daily balance method</li> <li>Calculate the finance charge on cash advances</li> </ul>		

Textbook Reference Thomson (South Western) Business Math 16 <sup>th</sup> Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapte	r 5 – Spend Wisely	
<ul> <li>5.1 Sales Tax</li> <li>Calculate sales tax on purchases</li> <li>Calculate sales taxes when some items are not taxed</li> <li>5.2 Sales Receipts</li> <li>Calculate extensions</li> <li>Calculate sales slip totals</li> <li>5.3 Units Prices</li> <li>Calculate and compare unit prices</li> <li>Calculate unit prices from group prices</li> </ul>	2.EC.1 Understand the costs of making purchases.	A1: a – h A2: a – g A3: a – d
<ul> <li>5.4 Comparative Shopping</li> <li>Compare prices at sales, at different stores, and in different amounts</li> <li>Compare the cost of rental options</li> <li>Compare the cost of renting vs. buying</li> </ul>	Note: Catalog shopping and internet prices should be included with comparing store prices.	
<ul> <li>5.5 Personal Internet Access</li> <li>Calculate and compare the costs of connecting to the internet</li> <li>Calculate and compare speeds of online connections</li> </ul>	Section 5.5 might be included with Chapter 9 with other compute related topics.	

Textbook Reference Thomson (South Western) Business Math 16 <sup>th</sup> Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapter 6	– Own a Home or Car	
<ul> <li>6.1 Borrowing to Buy a Home</li> <li>Calculate the down payment, closing costs, and mortgage loan amount</li> <li>Calculate the total interest cost of a mortgage loan</li> <li>Calculate the savings from refinancing mortgages</li> <li>6.2 Renting or Owning a Home</li> <li>Calculate the costs of home ownership</li> <li>Calculate the cost of renting a home or apartment</li> <li>Compare the costs of renting vs. owning</li> <li>6.3 Property Taxes</li> <li>Calculate the decimal tax rate</li> <li>Calculate property taxes for tax rates per \$100 or \$1000</li> <li>Calculate property taxes for tax rates in mills or cents per \$1</li> <li>6.4 Property Insurance</li> <li>Calculate property insurance premiums for homeowners</li> <li>Calculate property insurance premiums for renters</li> <li>Calculate how much can be collected on insurance claims</li> </ul>	3.EC.1 Understand various types of housing and calculate their related costs.	A1: a, b A2: a – h A3: a – d
<ul> <li>6.5 Buying a Car</li> <li>Calculate the MSRP for a new car, including optional equipment</li> <li>Calculate the delivered price and the balance due for new car</li> <li>Calculate the delivered price and the balance due for used car</li> <li>6.6 Depreciating a Car</li> <li>Calculate average annual depreciation on a car</li> <li>Calculate the rate of depreciation</li> <li>6.7 Car Insurance</li> <li>Calculate car insurance premiums</li> <li>6.8 Car Purchases and Leases</li> <li>Calculate the total amount paid and the finance charge for installment loan car purchases</li> <li>Calculate the cost of leasing cars</li> <li>Compare the costs of leasing and buying cars</li> <li>Calculate the cost of operating cars</li> </ul>	3.EC.2 Understand and calculate the costs of owning and operating a car.  The following standard is not included in the text and therefore should be inserted.  3.EC.3 Understand the costs related to various types of mass transportation.	A1: a, b A2: a – e A3: a – e A1: a, b A2: a, b, c A3: a, b, c

Textbook Reference Thomson (South Western) Business Math 16 <sup>th</sup> Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapter 7 – In:	surance and Investments	
<ul> <li>7.1 Life Insurance</li> <li>Calculate life insurance premiums</li> <li>Calculate the net cost of life insurance</li> <li>Calculate the cash and loan values of a life insurance policy</li> <li>7.2 Health Insurance</li> <li>Calculate health insurance premiums</li> <li>Calculate health insurance benefits and coinsurance</li> <li>7.3 Disability Insurance</li> <li>Calculate disability insurance benefits</li> <li>7.4 Buying Bonds</li> <li>Calculate the market price of bonds</li> <li>Calculate the total investments in bonds</li> <li>7.5 Bond Interest</li> <li>Calculate bond income</li> <li>Calculate bond yield</li> <li>Calculate total cost of bonds</li> <li>7.6 Stocks</li> <li>Calculate the cost of stock purchases</li> <li>Calculate annual stock dividends</li> <li>Calculate the yield on stock investments</li> <li>Calculate the proceeds from the sale of stack</li> <li>7.7 Mutual Funds</li> <li>Calculate the total investment in a mutual fund</li> <li>Calculate the amount and rate of commission</li> </ul>	4.EC.1 Explore investing money in various markets, including life insurance.	A1: a - g A2: a - e A3: a, b, c
<ul> <li>Calculate profit or loss from mutual fund investments</li> <li>7.8 Real Estate</li> <li>Calculate net income from real estate investments</li> <li>Calculate the rate of return on real estate investments</li> <li>Calculate the monthly rent to be charged</li> </ul>		
<ul> <li>7.9 Retirement Investments</li> <li>Calculate your retirement income</li> <li>Calculate your pension income</li> <li>Calculate the required minimum payout from a pension fund</li> <li>Calculate the penalty for early withdrawal from an individual retirement account</li> </ul>	4.EC.2 Explore retirement planning.	A1: a, b A2: a – d A3: a, b

Textbook Reference Thomson (South Western) Business Math 16th Edition Copyright © 2006	ECSD Learning Objectives Statistics	ECSD Learning Targets
Chapter 8	- Business Data Analysis	
8.1 Measures of Central Tendency  • Find the mean, median, mode, and rage for a set of data  • Construct a frequency distribution table and calculate the mean, median, mode, and rage  8.2 Probability  • Compute the probability of simple events  • Compute experimental probability	Chapter 8 is an excellent review of the Data Analysis Standard (5.0) for the students needing to pass the proficiency test. See Learning Targets for Algebra I and Geometry.	
<ul> <li>Compute probability based on experience</li> <li>8.3 Bar and Line Graphs</li> <li>Interpret and make vertical bar graphs</li> <li>Interpret and make horizontal bar graphs</li> <li>Interpret and make line graphs</li> </ul>		
<ul><li>8.4 Circle and Rectangle Graphs</li><li>Make circle graphs</li><li>Interpret and make rectangle graphs</li></ul>		
8.5 Economic Statistics  Interpret consumer price index data  Calculate rates of inflation  Calculate the purphesing power of the dellar.		

Calculate the purchasing power of the dollarAnalyze unemployment data

<u>Textbook Reference</u>	ECSD	ECSD
Thomson (South Western)	Learning Objectives	Learning
Business Math 16th Edition	Statistics	Targets
Copyright © 2006		3
Chapter 9 – Business Technologies	Chapters 9 – 14 may be included at the teacher's disci	
	There are no specific ECSD standards or learning targ	iets for these topics.
Chapter 10 – Manage People and Inventory		
Chapter 11 – Business Costs		
Chapter 12 – Sales and Marketing		
Chapter 12 Duainese Profit and Loss		
Chapter 13 – Business Profit and Loss		
Chapter 14 – International Business		
Chapter 14 - International Dusiness		

## 1.0 Income, Banking, and Budgets

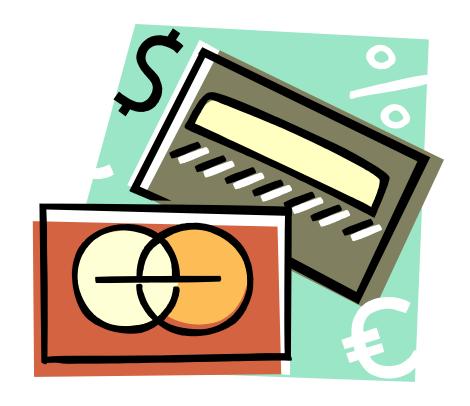


Content Standard 1.0: Students should be able to understand sources of income, withholding taxes, the basics of managing checking and saving accounts, and maintaining balanced budgets.

ECSD Consumer Math Learning Objectives 1.EC.				
ECSD Consumer Math	ECSD Consumer Math Learning Targets The Student is expected to:			
Learning Objectives	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning	
1.EC.1 Identify and calculate various forms of income.	a. Know meaning of pay period. b. Know meaning of gross and net pay. c. Know meaning of wages and salary. d. Know meaning of commissions. e. Know, understand, and use the following vocabulary: Commission Pay period Gross pay Piecework Net pay Salary Overtime rates Wages	<ul> <li>a. Compute regular wages.</li> <li>b. Compute overtime rates and pay.</li> <li>c. Compute total pay for piecework.</li> <li>d. Determine average weekly and monthly income.</li> <li>e. Compute salary per pay period.</li> <li>f. Compute earning for commission sales.</li> <li>g. Find wages given a timecard and a wage.</li> </ul>	a. Verify amounts on an earning statement.  b. Analyze the withholding amounts and fill out a W-4 form.	
1.EC.2 Identify and understand required income withholdings.	a. Know meaning of federal withholding tax. b. Know meaning of FICA tax. c. Know meaning of deduction. d. Know meaning of net pay. e. Know, understand, and use the following vocabulary: Deduction FICA tax Federal withholding tax Net pay	<ul><li>a. Compute federal withholding tax.</li><li>b. Compute FICA Tax withheld.</li><li>c. Compute deductions.</li><li>d. Compute net pay.</li></ul>	a. Verify withholdings are correct.      b. Verify gross and net pay are correct.	

ECSD Consumer Math Learning Objectives 1.EC				
ECSD Consumer Math	ECSD Consumer Math Learning Targets The Student is expected to:			
Learning Objectives	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning	
1.EC.3 Manage checking and saving accounts.	a. Understand various kinds of checking accounts.  b. Understand various kinds of savings accounts.  c. Know meaning of check register.  d. Know meaning of deposit slip.  e. Know meaning of withdrawal slip.  f. Know the meaning of a debit card.  g. Know the meaning of reconcile.  h. Know, understand, and use the following vocabulary: Check register Reconcile Checking account Saving account Debit card Withdrawal slip Deposit slip	a.Compute bank service charges. b. Complete a deposit slip for a checking or savings account. c. Write checks and maintain a check register. d. Complete a withdrawal slip for a savings account. e. Compute a new balance on an account statement after a transaction has been made and/or interest has been credited. f. Calculate compound interest and total amount due.	a. Analyze and choose an appropriate personal checking account.  b. Analyze and choose an appropriate personal saving account.  c. Reconcile a bank statement with the corresponding check register balance.  d. Compare the services of various types of financial institutions and identify advantages of comparison shopping before selecting financial services.	
1.EC.4 Identify and understand employee benefits.	a. Know the meaning of health benefits.      b. Know, understand, and use the following vocabulary:     Health benefits	a. Compute the cost of health benefits.	a. Analyze health benefits as a way of comparing various job packages.      b. Calculate net income from an employee payroll record.	
1.EC.5 Develop and follow a balanced budget.	a. Know meaning of budget.      b. Know, understand, and use the following vocabulary:     Budget	a. Compute average monthly expenses for various categories.      b. Compute the monthly expenses as percents of monthly income.      c. Use a circle graph to compare monthly expenses.	a. Analyze monthly expenses and make a budget using those expenses.      b. Use a circle graph to solve budget problems.	

#### 2.0 Credit and Loans



Content Standard 2.0: Students should be able to explore the basics of maintaining good credit ratings and obtaining loans.

ECSD Consumer Math Learning Objectives 2.EC				
FCSD Consumer Math	ECSD Consumer Math Learning Targets The Student is expected to:			
ECSD Consumer Math Learning Objectives	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning	
2.EC.2 Understand charge accounts and credit cards and calculate their related costs.	a. Review the meaning of sales tax. b. Review the meaning of total price. c. Know the meaning of finance charge. d. Know the meaning of installment plan. e. Review the meaning of unit price. f. Review the meaning of markdown. g. Review the meaning of sales price. h. Know, understand, and use the following vocabulary: Finance charge Sales tax Installment plan Total price Markdown Unit price a. Know meaning of charge accounts. b. Know meaning of credit cards. c. Know the meaning of finance charges. d. Know meaning of credit score. e. Know, understand, and use the following vocabulary: Annual percentage rate Credit score Bounced check Default rates Charge account Finance charge Collection notices Interest Credit card Late fees	a. Compute the total price including sales tax.  c. Compute the change due on a cash sale.  d. Compute unit price. e. Compute markdown. f. Compute sales price. g. Determine cost of sale items.  a. Calculate interest charges using the Annual Percentage Rate (APR). b. Calculate interest charges and determine the APR.	a. Compute the finance charge on an installment plan of payment.  b. Compute monthly payments on an installment plan of payment.  c. Compute a required down payment on a financed purchase.  d. Recognize and use the expenses involved in catalog shopping.  a. Calculate and compare costs associated with the use of credit (e.g., finance charges, interest, late fees, and default rates).  b. Identify warning signs of credit abuse (e.g., late fees, missed payments, collection notices, and bounced checks) and ways to correct credit problems.  c. Calculate how long it takes to repay debt and the total costs when a borrower makes minimum payments.  d. Compare various credit cards and select the best option.  e. Understand the consequences of declaring bankruptcy.	

ECSD Consumer Math Learning Objectives 2.EC					
ECSD Consumer Math Learning Objectives	ECSD Consumer Math Learning Targets The Student is expected to:				
	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning		
2.EC. 3 Describe the various types of loans and calculate their related costs.	a. Know meaning of credit rating. b. Know meaning of credit score. c. Know meaning of closing costs. d. Know meaning of collateral. e. Know meaning of co-signer. f. Know, understand, and use the following vocabulary: Closing costs Credit rating Collateral Credit score Compound interest Simple interest Co-signer	<ul> <li>a. Calculate simple interest.</li> <li>b. Calculate compound interest.</li> <li>c. Identify the various types of loans and their appropriate uses.</li> <li>d. Compute interest on a loan.</li> <li>e. Calculate amount due on a loan.</li> </ul>	a. Calculate total cost of a loan including closing costs and down payment.      b. Compare the advantages and disadvantages of different payment methods.		

### 3.0 Housing and Transportation

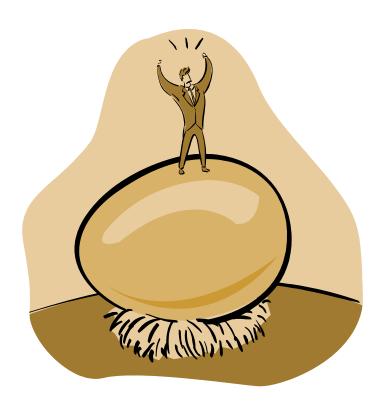


Content Standard 3.0: The student will explore housing and transportation decisions and costs.

ECSD Consumer Math Learning Objectives					
ECSD Consumer Math	3.EC  ECSD Consumer Math Learning Targets  The Student is expected to:				
Learning Objectives	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning		
3.EC.1 3 Understand various types of housing and calculate their related costs.	a. Know various types of housing. b. Know, understand, and use the following vocabulary: Depreciation Rental insurance Mortgage Utilities Rental lease	a. Suggest criteria on which to select an apartment based on income and personal preference.  b. Calculate the annual cost of renting an apartment.  c. Calculate the cost of moving given predetermined criteria.  d. Calculate the cost of equipping an apartment, including utilities.  e. Calculate property depreciation.  f. Calculate monthly mortgage payments.  g. Calculate the closing costs of purchasing a home.  h. Compute the total costs of owning a home.	a. Compare the costs of renting versus home purchasing. b. Interpret a rental lease. c. Interpret rental insurance agreements. d. Make an informed decision on types of homeowner insurance needed and appropriate amounts.		
3.EC.2 Understand and calculate the costs of owning and operating a car.	a. Know meaning of sticker price.     b. Know, understand, and use the following vocabulary:     Sticker price	<ul> <li>a. Compute sticker price of a new car.</li> <li>b. Compute the down payment and amount to be financed.</li> <li>c. Compute the finance charge.</li> <li>d. Estimate the resale value of a used car.</li> <li>e. Determine the costs of a leasing car.</li> </ul>	a. Calculate the total cost of purchasing a new car.  b. Calculate and analyze the costs of owning and operating car, including gar mileage, maintenance, and insurance.  c. Compare the costs of leasing and buying a new car and determine which is appropriate for your situation.  d. Compare the equity and depreciation of a new car to that of a used car.  e. Calculate and compare the terms of financing a car using different payment plans.		

ECSD Consumer Math Learning Objectives 3.ET					
ECSD Consumer Math	ECSD Consumer Math Learning Targets The Student is expected to:				
Learning Objectives	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning		
3.EC.3 Understand the costs related to various types of mass transportation.	a. Know various types of mass transportation.      b. Know, understand, and use the following vocabulary:     Mass transportation     Rental car insurance	<ul><li>a. Compute the cost of renting a car.</li><li>b. Compute the cost of taking a taxi.</li><li>c. Find total cost of airfare, train, or bus transportation.</li></ul>	<ul> <li>a. Analyze the cost and necessity of purchasing rental car insurance.</li> <li>b. Calculate and compare the cost of renting a car and the cost of taking a taxi.</li> <li>c. Compare costs of various modes of travel and the travel time involved.</li> </ul>		

#### 4.0 Investments



Content Standard 4.0: The student will be able to make informed decisions about investments and retirement planning.

ECSD Consumer Math Learning Objectives 4.EC.				
ECSD Consumer Math Learning Objectives	ECSD Consumer Math Learning Targets The Student is expected to:			
	(A1) Concepts/Knowledge	(A2) Procedures/Skills	(A3) Problem Solving/Reasoning	
4.EC.1 Explore investing money in various markets, including life insurance.	a. Know ways to save. b. Know types of investment. c. Know strategies for investing. d. Know the meaning of long-term and short-term investments. e. Know the meaning of annuities. f. Know the meaning of life insurance. g. Know, understand, and use the following vocabulary: Annuities Long-term investment Bonds Payroll deduction Diversification Real estate Hard assets Short-term investment Life insurance Stocks	a. Identify ways to save, including payroll deductions.  b. Identify and explain types of investments, including stocks, bonds, real estate, and hard assets.  c. Identify and explain strategies for investing, including diversification.  d. Identify and explain types of annuities.  e. Identify and explain the types of life insurance policies.	a. Compare the yields and interests of stocks and bonds.  b. Compare long-term and short-term investments.  c. Determine and compare the annual premiums for different types of life insurance policies.	
4.EC.2 Explore retirement planning.	a. Know meaning of different retirement plans.  b. Know, understand, and use the following vocabulary: Employer-sponsored retirement plans Individual retirement plans Social Security	a. Relate financial resources needed for specific retirement activities of lifestyles.  b. Recognize and explain the characteristics of individual retirement plans.  c. Recognize and explain the characteristics of employer-sponsored retirement plans.  d. Recognize and explain the characteristics of Social Security.	a. Compare the characteristics of retirement plans, including individual, employer-sponsored, and Social Security.  b. Analyze the power of compound interest and the importance of starting early in implementing a financial plan for retirement.	