

Ledyard Public Schools

Consumer Math Curriculum



Course Description

The unit topics of the Consumer Math course were adopted from guidelines provided by the U.S. Financial Literacy and Education Commission. The commission provides financial education resources for all Americans through its website: www.mymoney.gov

My Money Five Principles for making day-to-day decisions and planning financial goals

- ☐ Earn
- ☐ Save & Invest
- ☐ Protect
- ☐ Spend
- ☐ Borrow



This course is purposefully designed to be fluid in nature, driven at times by current events and student interest as topics are investigated. Therefore, the pacing may be adjusted at teacher discretion to allow more in depth conversations to meet the interests of students and ensure that certain topics (such as taxes) are addressed at the appropriate time in the calendar year.

CT CORE MATHEMATICS STANDARDS

The Consumer Math curriculum document primarily contains material linked to the *Number and Quantity* and *Algebra* standards. The eight *Mathematical Practices* of the CCS are weaved into each unit of study, primarily the practices that challenge students to “make sense of problems and persevere in solving them,” “use appropriate tools strategically,” and to “look for and express regularity in repeated reasoning.” This course is designed to meet the needs of 11th and 12th grade students, as they become financially independent consumers.

COURSE TEXTBOOK

Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016

SUPPLEMENTAL RESOURCES

In addition to the textbook, many online resources are utilized to supplement instruction and expose students to real life resources. These are often online sites that directly provide students with additional content exposure through authentic investigative activities. Some examples of this include: the opportunity to investigate current uses of income taxes, current local banking options, and current credit card businesses. These resources are always presented in a manner to make students more aware of how to navigate these sites and be conscientious consumers of information from these businesses.

UNIT 1: JOBS & PAYCHECKS

Pacing:
14 Blocks

Description	The focus of this unit is income. Students learn about various pay structures and the differences between jobs that pay at an hourly rate and those that offer a flat salary. Students learn about the deductions to their pay, comparing gross and net income. In addition to understanding the impact on one's net pay, students learn about the employer responsibilities of processing employee tax withholdings and discuss some of the government uses of tax dollars.	
Essential Questions	How do I verify my employer is calculating my pay accurately? Why doesn't the money I earn match the money I get paid? Where does the money deducted from my check go?	
Learning Targets	<p>Topic 1 - Total Pay</p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate straight-time, overtime, and total pay. <input type="checkbox"/> Calculate total hours on a weekly time card. <input type="checkbox"/> Calculate total pay based on a piecework basis. <input type="checkbox"/> Determine salary per pay period. <input type="checkbox"/> Determine straight and graduated commissions and their adjustment to pay. <p>Topic 2 - Payroll Taxes & Net Pay</p> <ul style="list-style-type: none"> <input type="checkbox"/> Determine the amount withheld for federal income tax. <input type="checkbox"/> Calculate state taxes at straight percent and graduated income tax basis. <input type="checkbox"/> Calculate the amount withheld for Social Security and Medicare. <input type="checkbox"/> Calculate the deductions for group insurance. <input type="checkbox"/> Calculate net pay per pay period. 	
Vocabulary	Chapter 1 vocabulary	
Suggested Learning Activities	Hopes and Dreams Collage Dream Job Research Project	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)	
Assessments	Formative assessments throughout Periodic quizzes Chapter Tests Projects	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 1.1, 1.2 , 1.3, 1.4, 1.5, 1.6 , 1.7 , 2.1, 2.2, 2.3, 2.4, 2.5 , 2.6

		** difference in color indicates sections in which content may arise during classroom instruction, but will be more fully developed in future units of study **
	CCS	SSE.A1 , CED.A1 , CED.A4 , EE.B.3 , EE.B.4

UNIT 2: JOBS & BENEFITS

Pacing:
10 Blocks

Description	The focus of this unit is income and benefits. Students learn about benefits offered by various employers and possible changes to their pay structure, based on the Dream Job Research Project. Benefits, such as overtime, bonuses, commission, and paid time-off, are studied during this unit, in addition to employer sponsored programs such as health insurance, retirement savings, and long term disability.	
Essential Questions	How do I determine the benefits offered by an employer? How do I consider benefits when seeking employment?	
Learning Targets	<p>Topic 1 - Total Pay</p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate straight-time, overtime, and total pay. <input type="checkbox"/> Determine straight and graduated commissions and their adjustment to pay. <p>Topic 2 - Insurance</p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the deductions for group insurance. <input type="checkbox"/> Compute health insurance premiums <input type="checkbox"/> Calculate the cost to the patient for healthcare. <input type="checkbox"/> Utilize tables to look at premiums for Life insurance. 	
Vocabulary	Chapter2 Vocabulary	
Suggested Learning Activities	<u>Investigation/Discussion</u> : Research and analyze the various benefit structures offered by students' current employment, parental employment, and businesses of the student's choosing.	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)	
Assessments	Formative assessments throughout Periodic quizzes Chapter Tests	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 1.2, 1.3, 1.6, 1.7, 2.5, 2.6, 11.1, 11.2, 11.3, 11.4 ** These sections are addressed specifically within the context of a broader topic. Not all aspects from the textbook are/should be done **
	CCS	EE.B.3 , EE.B.4 R.P.A.3

UNIT 3: BANKING

Pacing:
13 Blocks

Description	The focus of this unit is largely savings, but also includes preliminary discussions of spending. Students study the differences between savings accounts and checking accounts, and the interest rates provided through each account. Students investigate local banks/credit unions and the services they offer, including debit cards, checkbooks, online banking, and credit cards.	
Essential Questions	How do I choose the banking options that are right for me? How do banks and credit unions operate?	
Learning Targets	<p><u>Topic 1 - Checking Accounts</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the total checking account deposits, write a check, and balance a checking account register. <input type="checkbox"/> Reconcile a check register with a bank statement and online banking. <p><u>Topic 2 - Savings Accounts & Interest</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Complete savings account deposit slips, withdrawal slips, and track account balances. <input type="checkbox"/> Calculate and determine interest: simple and compound. <input type="checkbox"/> Use compound interest tables to determine unknown periods, rates, and amounts. <input type="checkbox"/> Calculate the new balance on a charge account. <p><u>Topic 3 - Finance Charges</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the finance charge by using the unpaid-balance method. <input type="checkbox"/> Calculate the finance charge based on the average-daily-balance method – new purchases included. 	
Vocabulary	Chapter 3 Vocabulary	
Suggested Learning Activities	Project Part 2 - Create a Check Credit Card Offer Activity	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets) Microsoft Publisher, Website search	
Assessments	Formative assessments throughout Periodic quizzes Chapter Tests Project Part 1 -Local Banking Research	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 7.1, 7.2, 7.3
	CCS	R.P.A.3

UNIT 4: SPENDING MONEY – LIVING EXPENSES		Pacing: 12 Blocks
Description	The focus of this unit is daily, weekly, and monthly living expenses. Students study how money is spent on groceries, clothing, and personal items. Students learn about shopping techniques and how to save money on their expenses through sales, discounts, coupons, and rebates. Students become more conscientious consumers by learning the concepts of comparison shopping and unit pricing.	
Essential Questions	What will I have to ensure I can purchase to survive? What expenses are “needs” versus “wants”?	
Learning Targets	<p><u>Topic 1 - Unit Price & Total Purchase Price</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate sales tax, total purchase price, and unit price. <input type="checkbox"/> Determine the best buy based on unit price. <input type="checkbox"/> Calculate the final price of an item after coupons and rebates. <input type="checkbox"/> Calculate markdowns and the sale price when a markdown rate is known. <p><u>Topic 2 - Charge Accounts</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the new balance on a charge account. <input type="checkbox"/> Calculate the finance charge by using the unpaid-balance method. <input type="checkbox"/> Calculate the finance charge based on the average-daily-balance method – new purchases included. <p><u>Topic 3 - Budgeting for Living Expenses</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate average monthly expenditures. <input type="checkbox"/> Use records of past expenditures to prepare a monthly budget sheet. <input type="checkbox"/> Compare the amount budgeted to actual expenditures. 	
Vocabulary	Chapter 4 Vocabulary	
Suggested Learning Activities	<p>Students determine how to find the best purchase price of a selected item by determining unit price and utilizing rebate and coupon offers.</p> <p><i>Example: Determine whether it's more cost effective to purchase a specific flea control medication for your pet from the vet, where a mail-in rebate is offered, or purchasing a multi-pack of the same medication from an online supplier.</i></p>	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)	
Assessments	<p>Formative assessments throughout</p> <p>Periodic quizzes</p> <p>Chapter Tests</p> <p>Family Meal Project</p>	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, 7.1, 7.2, 7.3
	CCS	SSE.A1 , CED.A1 , CED.A4 , R.P.A.3 , EE.B.3 , EE.B.4

UNIT 5: SPENDING MONEY – HOUSING

Pacing:
12 Blocks

Description	The focus of this unit is housing expenses. Students study the differences in expenses related to renting versus buying a home. The differences in costs associated with insurance, utilities, and taxes/fees based on the decision to rent versus own a home is discussed in depth.
Essential Questions	How do I decide whether to rent or buy? What are the expenses to consider regarding housing?
Learning Targets	<p><u>Topic 1 - Mortgage Loans & Homeowner Expenses</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the mortgage loan amount. <input type="checkbox"/> Calculate monthly payments, principal, and interest. <input type="checkbox"/> Calculate closing costs. <input type="checkbox"/> Compute allocation of monthly payment and how it affects principal and interest. <input type="checkbox"/> Calculate the assessed value of real estate taxes. <input type="checkbox"/> Investigate and determine the amount of coverage for homeowners insurance. <input type="checkbox"/> Calculate the annual homeowners premium. <input type="checkbox"/> Compute total housing costs. <p><u>Topic 2 - Single Payment & Installment Loans</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the maturity value and interest rate of a single-payment loan. <input type="checkbox"/> Calculate the down payment and the amount financed on an installment loan. <input type="checkbox"/> Calculate the monthly payment, total amount repaid, finance charge on an installment loan. <input type="checkbox"/> Calculate the payment to interest, payment to principal, and new balance on an installment loan. <input type="checkbox"/> Calculate the final payment when paying off an installment loan. <input type="checkbox"/> Determine the annual percentage rate on a loan using a table.
Vocabulary	Chapter 5 Vocabulary
Suggested Learning Activities	Using current financial rates and product prices, students compare costs associated with renting living space (home, apartment, etc.) to those associated with buying a home.
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)
Assessments	Formative assessments throughout Periodic quizzes Chapter Tests Housing Research Project

Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 10.1, 10.2, 10.3, 10.4, 10.5, 10.6, 10.7, 10.8, 10.9 ** This unit of study begins in Chapter 10 and blends content from Chapter 8 as language with loans is discussed **
	CCS	SSE.A.1 , CED.A.1 , CED.A.4 , RP.A.3 , EE.B.3 , EE.B.4

UNIT 6: SPENDING MONEY – TRANSPORTATION		Pacing: 10 Blocks
Description	The focus of this unit is transportation expenses. Students study the differences in expenses related to transportation, based on geographical needs. Students also study the differences associated with buying a new versus used vehicle. Students learn about the process of purchasing a vehicle including its selection, financing, and maintenance costs.	
Essential Questions	How do I assess my transportation needs? What is the process of purchasing a vehicle?	
Learning Targets	<p><u>Topic 1 - New & Used Vehicles</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the sticker price and dealer's cost of a new vehicle. <input type="checkbox"/> Calculate the average retail price or wholesale price of a used vehicle. <input type="checkbox"/> Use tables to compute the annual premium for vehicle insurance. <input type="checkbox"/> Calculate the total cost per mile of operating and maintaining a vehicle. <p><u>Topic 2 - Leasing & Renting Vehicles</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the total cost of leasing a vehicle. <input type="checkbox"/> Calculate the cost to rent a vehicle and the cost per mile to drive a rented vehicle. <p><u>Topic 3 - Single Payment & Installment Loans</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Calculate the maturity value and interest rate of a single-payment loan. <input type="checkbox"/> Calculate the down payment and the amount financed on an installment loan. <input type="checkbox"/> Calculate the monthly payment, total amount repaid, finance charge on an installment loan. <input type="checkbox"/> Calculate the payment to interest, payment to principal, and new balance on an installment loan. <input type="checkbox"/> Calculate the final payment when paying off an installment loan. <input type="checkbox"/> Determine the annual percentage rate or a loan using a table. 	
Vocabulary	Chapter 6 Vocabulary	
Suggested Learning Activities	<p>Using current financial rates and product prices, students compare costs associated with leasing a vehicle with buying USED or NEW.</p> <p>Students research the cost of car insurance offered by a variety of insurance companies.</p>	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)	
Assessments	<p>Formative assessments throughout</p> <p>Periodic quizzes</p> <p>Chapter Tests</p> <p>Purchasing a Vehicle Research Project</p>	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016

		Sections 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7 ** This unit begins in Chapter 9 and blends content from Chapter 8 as language with loans is discussed **
	CCS	SSE.A1 , CED.A1 , CED.A4 , RP.A.3 , EE.B.3 , EE.B.4

UNIT 7: BUDGETING

Pacing:
10 Blocks

Description	The cumulative unit on budgeting pulls together all of the work students have done in the previous units. Based on their research, students examine their income and expenses to analyze if they are living within their means or have over extended their expenses. Students learn how to create and use a budget to ensure they can live within their means, while saving for their futures. Finally, students determine the need to review budgets on a weekly, monthly, and yearly basis.	
Essential Questions	How do I ensure I am living within my means?	
Learning Targets	Topic 1 - Creating & Analyzing a Budget <ul style="list-style-type: none"> <input type="checkbox"/> Calculate average monthly expenditures. <input type="checkbox"/> Use records of past expenditures to prepare a monthly budget sheet. <input type="checkbox"/> Compare the amount budgeted to actual expenditures. 	
Vocabulary	Chapter 7 Vocabulary	
Suggested Learning Activities	Spreadsheet analyses: Students work with previously prepared budget sheets (weekly, monthly, quarterly, annual) to analyze section balances and identify opportunities for line-item adjustments based on sound financial reasoning.	
Technology Enhancements	Organization and operations with spreadsheets (Google Sheets)	
Assessments	Formative assessments throughout Periodic quizzes Chapter Tests Budget Creation Project	
Alignments	Textbook	Mathematics for Business and Personal Finance, Glencoe/McGraw Hill 2016 Sections 3.1, 3.2, 3.3
	CCS	SSE.A.1 , CED.A.1 , CED.A.4 , RP.A.3