Transition Math Curriculum

Board Approved: 3/20/2025

Course Information

High School
Full-year course

Course Description:
This course prepares students to become independent consumers by applying essential foundational mathematics content to consumer situations that involve income, auto purchases and leasing, residential purchasing and leasing, comparing and purchasing consumer goods, evaluating investment strategies based on investment principles, and developing a budget based on projected earnings and taxes. Students will apply the Standards for Mathematical Practices within the MLS to real-life scenarios in the context of relevant consumer activities. Students will have to think critically and apply mathematical standards to complete tasks that are relevant and applicable to consumer experiences.
*This course is intended for special education students who have completed Algebra 1 and Geometry.

Transfer Goals:
- Analyze and calculate expenses incurred when purchasing/leasing an automobile or a place of residence.
- Maintain accurate banking records and compare types of credit.
- Analyze options when purchasing consumable goods to make a logical, educated decision.
- Utilize basic investment principles to evaluate various investment opportunities.
- Develop the components of a budget based on a determined amount of earnings and taxes.

Curriculum Standards:
Mathematics - Missouri Learning Standards
Personal Finance - Missouri Learning Standards

Curriculum Resource(s): None

Unit 1: Earning Money

Timeframe: *3 Weeks*

Unit Description: In this unit, students will explore various pay and compensation structures to understand how earnings are calculated in different scenarios. They will analyze hourly wages, salaries, commissions, piecework, and bonuses, applying mathematical concepts to real-world contexts. The unit aims to help students develop practical skills for managing finances and making informed career choices by understanding how different compensation structures affect total earnings.

Enduring Understandings:

- Understand how to determine weekly gross pay by calculating it based on hourly wages and the total hours worked.
- Grasp the concept of overtime and identify the appropriate terms and wages to apply when calculating weekly gross pay that includes overtime.
- Comprehend how to describe salary pay and calculate salary amounts by understanding the different salary pay periods.
- Understand how to calculate salaries by determining gross commissions and applying various compensation structures.

Essential Questions:

- How is the process of calculating weekly gross pay using hourly wages and total hours worked used in everyday work settings?
- What factors must be considered when determining overtime pay, and how do these impact the calculation of weekly gross pay?
- What are the differences between salary pay and hourly pay, and how do you calculate salary amounts across different pay periods?
- How do gross commissions and compensation structures influence the calculation of total salaries?

Unit 1 Standards

STANDARD CODE	STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:
PF.II.2.A	● I can calculate overtime rates, and categorize hours worked in various pay grades. ● I can tell the difference between hourly and salary pay and explain the pros and cons.
A1.NQ.B.4	● I can calculate wages, including overtime, for an employee.
A1.APR.A.1	● I can calculate salaries based on commissions and compensation structures.

**priority standards indicated in bold*

Unit 2: Shopping

Timeframe: *7.5 weeks*

Unit Description: This unit is designed to equip students with essential financial literacy skills needed to make informed decisions in everyday consumer situations. Students will explore various mathematical concepts and applications related to personal finance, including comparison shopping, calculating discounts and sales tax, understanding finance charges, and evaluating credit card interest rates.

Enduring Understandings:

- Understand how to determine and use unit prices, percentages, and proportions in various financial calculations.
- Grasp how to evaluate the final price of an item by considering both its cost and the markup applied.
- Comprehend how to calculate and compare different discount amounts and their effects on final pricing.
- Develop the ability to analyze and solve problems systematically, showing perseverance in reaching accurate solutions.
- Recognize the importance of precision in calculating final costs, ensuring accuracy in financial transactions.
- Understand how to calculate and interpret key credit card terms, including paid balance, interest, new balance, and purchasing power.
- Compare the costs of items and services, taking into account tips, tax, and unit prices to make informed financial decisions.
- Evaluate and compare the financial implications of credit card interest, layaway plans, and payment schedules on a payment plan.

Essential Questions:

- How do unit prices, percentages, and proportions affect financial calculations, and how can they be used to make informed decisions?
- What factors should be considered when determining the final price of an item, including cost and markup?
- How do different discount amounts influence the final price, and what methods can be used to calculate and compare them?
- What strategies can be employed to systematically analyze and solve financial problems, and why is perseverance important in reaching accurate solutions?
- Why is precision crucial in calculating final costs, and how does it impact financial transactions?
- How do key credit card terms like paid balance, interest, new balance, and purchasing power affect your financial health, and how can they be accurately calculated?
- How can you compare the costs of items and services when factoring in tips, tax, and unit prices to make the best financial decisions?
- What are the financial implications of credit card interest, layaway plans, and payment schedules, and how can they be evaluated and compared effectively?

Unit 2 Standards

STANDARD CODE	STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:
A1.LQE.A.1b	• I can determine the markup or discount in various representations.
PF.V.1.D	• I can accurately read and comprehend a credit card statement.

**priority standards indicated in bold*

	● I can compute the unpaid balance, interest, new balance, and purchasing power on a credit card.
A1.CED.A.1	● **I can determine which product is the best buy by finding the unit price.** ● **I can compute the cost of different items and quantities.**
A1.NQ.B.3a	● I can find a total bill at a restaurant including tax and tip. ● I can calculate the sale price of an item after mark-up. ● I can determine the final cost after the use of a coupon.

Unit 3: Managing Household Expenditures

Timeframe: *4-5 weeks*

Unit Description: This unit is designed to equip students with the financial literacy skills necessary to make informed decisions about housing and related expenses. Students will explore the financial implications of renting versus buying a home, apartment, or condominium, evaluating the costs and benefits of each option. They will also learn to identify and manage monthly expenses, distinguishing between fixed and variable costs.

Enduring Understandings:

- Understand how to calculate rent allowances by converting different pay periods (weekly, monthly, biweekly) and hourly wages into comparable units.
- Grasp how to evaluate the financial implications of purchasing a home by comparing the cost advantages and disadvantages of renting versus buying.
- Develop the ability to convert pay periods to accurately calculate borrowing amounts and determine monthly payments across various interest rates.
- Understand how to compare the terms and interest rates of different mortgage options to make informed decisions.
- Comprehend how to determine the appropriate coverage and percentage paid for homeowners insurance.
- Analyze and interpret the billing units used by different utilities, applying rates to calculate average usage and costs.

Essential Questions:

- How can you convert different pay periods and hourly wages into comparable units to accurately calculate rent allowances?
- What factors should be considered when evaluating the financial implications of purchasing a home, and how do the costs of renting compare to buying?
- How do you convert pay periods to determine the amount to borrow and calculate monthly payments, considering various interest rates?
- What are the key differences between various mortgage options, and how do terms and interest rates impact your financial decisions?
- How do you determine the appropriate level of coverage and percentage paid for homeowners insurance?
- What methods can be used to analyze billing units for different utilities, and how can you apply rates to calculate and compare average usage and costs?

Unit 3 Standards	
STANDARD CODE	**STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:**
A1.CED.A.1	**• I can find the monthly payment for a mortgage.** **• I can compute the annual payment for homeowner's insurance given the construction type and area.** **• I can calculate monthly utility bills including water, gas, and electricity.** **• I can calculate an appropriate amount of money to spend on my monthly rent using the Renter's Rule.** **• I can calculate the amount to borrow for a house using the Banker's Rule.** **• I can find the down payment and the amount of mortgage for a house.** **• I can calculate the amount of money paid to the bank in 30 years and the total amount of interest.**

**priority standards indicated in bold*

PF.V.1.E	• I can find the monthly payment for a mortgage by using a table. • I can calculate the monthly and total payments on a mortgage of different lengths.

Unit 4: Managing Vehicle Expenditures

Timeframe: ***3.5 weeks***

Unit Description: This unit focuses on the financial aspects of car ownership, providing students with the knowledge and skills to make informed decisions when purchasing and maintaining a vehicle. Students will explore the costs and responsibilities associated with buying new and used cars, analyze various car ownership expenses, and evaluate insurance options. Through this unit, students will learn to navigate the complexities of vehicle ownership with a strong understanding of the long-term financial implications.

Enduring Understandings:

- Understand how to compare the total costs of purchasing new versus used cars, considering all relevant factors.
- Grasp the additional costs associated with car buying, including options, transportation and handling fees, depreciation, rebates, and trade-in values.
- Comprehend how to calculate the amount to finance after making a down payment, including the finance charges on a car loan.
- Understand the key terms and requirements for car insurance, and how insurance costs are calculated based on factors like rating, deductible, collision, medical, and property damage coverage.
- Know how to calculate the taxes, titling, and license fees associated with purchasing a car.
- Analyze the fuel efficiencies, range, and EPA ratings of automobiles to make informed decisions.
- Understand the potential costs of car repairs and how they impact the overall cost of vehicle ownership.

Essential Questions:

- What factors should be considered when comparing the total costs of purchasing new versus used cars, and how do these factors influence your decision?
- How do additional costs like options, transportation and handling fees, depreciation, rebates, and trade-in values affect the overall cost of buying a car?
- How do you calculate the amount to finance after a down payment, and what role do finance charges play in the total cost of a car loan?
- What are the key terms and requirements for car insurance, and how are insurance costs determined based on factors like rating, deductible, collision, medical, and property damage coverage?
- How do you calculate the taxes, titling, and license fees when purchasing a car, and why are these important?
- How do fuel efficiencies, range, and EPA ratings of automobiles impact your decision-making when choosing a car?
- What are the potential costs of car repairs, and how do they affect the overall cost of vehicle ownership?

Unit 4 Standards	
STANDARD CODE	**STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:**
A1.CED.A.1	• **I can compute the miles traveled, the amount of fuel needed, the range, gas mileage, and gas price.** • **I can calculate the taxes on a car.** • **I can calculate the cost of a car including trade-in value and licensing.**

**priority standards indicated in bold*

	● **I can calculate the amount to finance after paying a down payment.** ● **I can calculate the finance charges on a car loan.**
PF.III.3.B	● I can compare various types of insurance coverage and calculate the total costs (premium).

Unit 5: Banking & Budgeting

Timeframe: *3 weeks*

Unit Description: This unit is designed to equip students with practical financial skills and knowledge essential for managing personal finances and making informed investment decisions. Through hands-on activities, real-world applications, and the use of media resources, students will gain a comprehensive understanding of banking terms, interest rates, and various investment opportunities.

Enduring Understandings:

- Understand how to apply simple interest formulas to accurately calculate the interest earned or charged in various financial situations.
- Grasp the key differences between simple interest and compound interest, and understand how each affects the growth or cost of an investment or loan.
- Know how to use and interpret different bank documents, accurately enter them in a financial register, and calculate balances by applying these entries.
- Understand how investors calculate the price, profit/loss, and percentage changes in stock investments, and how to determine the number of shares that can be purchased. Develop and track a stock portfolio to monitor investment performance.
- Comprehend how to calculate dividends and evaluate various investment strategies that involve dividend earnings.
- Apply effective budgeting strategies by allocating income according to specific percentages and financial goals.
- Understand how investments in bonds and CDs work, and compare these opportunities with stock investments to make informed financial decisions.

Essential Questions:

- How can simple interest formulas be used to calculate the interest earned or charged in different financial scenarios?
- What are the differences between simple interest and compound interest, and how do they impact the growth of investments or the cost of loans?
- How do you accurately use and interpret various bank documents, and how do you enter and calculate balances in a financial register?
- How do investors determine the price, profit/loss, and percentage changes in stock investments, and what methods are used to calculate the number of shares that can be purchased?
- What strategies can be used to calculate dividends, and how do different investment strategies influence dividend earnings?
- How can budgeting strategies be effectively applied by allocating income based on specific percentages and financial goals?
- How do investments in bonds and CDs function, and how do these compare to stock investments in terms of risks and returns?

Unit 5 Standards

STANDARD CODE	STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:
PF.III.1.C	• **Create a budget that includes savings goals, emergency funds, fixed expenses, and variable expenses.**
A1.SSE.A.1	• I can identify and apply the type of interest formula that I am utilizing in my banking needs.

**priority standards indicated in bold*

A1.NQ.A.2	• I can use exponents in formulas involving interest. • I can use the simple interest formula to calculate the amount of interest and repayment. • I can evaluate the pros and cons of various investment opportunities.
PF.IV.2.B	• I can use the compound interest formula to calculate the amount of interest and repayment. • I can use the compound interest doubling rule (Rule of 72) to determine the time or rate needed to double money.
A1.DS.A.8	• Distinguish between correlation and causation.
A1.CED.A.1	• **I can calculate the following about stocks: change in price, total cost, and profit/loss.**

Unit 6: Taxes

Timeframe: *2 weeks*

Unit Description: In this unit, students will learn to navigate payroll deductions and tax forms. They'll calculate various payroll deductions, compare gross and net pay, and use W-4 and 1099 forms to fill out the 1040 EZ form. Students will also use tax tables to determine taxes owed based on taxable income, compare taxes based on filing status, and evaluate the tax costs of buying different types of properties.

Enduring Understandings:

- Understand how to apply deduction terms to gross pay to determine net income.
- Grasp how to determine whether a taxpayer is owed a refund or has a balance due, and understand how to calculate these amounts.
- Comprehend the vocabulary and methods used to calculate property taxes assessed on a property.
- Know how to calculate the necessary figures for various commonly used tax forms.
- Understand how to interpret and use the information provided on a W-2 form.
- Simulate the process of filing taxes to apply learned tax concepts in a practical scenario.
- Calculate income based on a chosen career, including deductions, credits, and applicable property values to assess overall financial impact.

Essential Questions:

- How do you apply deduction terms to gross pay to accurately determine net income?
- What methods can you use to determine if a taxpayer is owed a refund or has a balance due, and how are these amounts calculated?
- What are the key terms and calculations involved in assessing property taxes on a property?
- How do you calculate the figures required for various commonly used tax forms?
- How do you interpret the information on a W-2 form, and how does it impact tax filing?
- How can you simulate the tax filing process to effectively apply tax concepts and procedures?
- How do you calculate and assess income from a chosen career, including deductions, credits, and property values, to understand the overall financial impact?

Unit 6 Standards	
STANDARD CODE	**STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:**
A1.NQ.B.3c	• I can use various tax deductions to calculate my taxable income. • I can calculate net pay and taxes owed after receiving tax credits.
PF.II.3.B	• I can interpret the information on a W-2 and use it to calculate a refund or balance due. • I can determine if a taxpayer will have a refund or a balance due and can compute its corresponding dollar amount.
A1.NQ.B.4	• I can accurately complete a W-4, 1040. • I can determine if I am due a refund or a balance due.

**priority standards indicated in bold*

Unit 7: Preparing for Careers

Timeframe: ***1.5 - 2 weeks***

Unit Description: In this unit, students will explore the critical role of mathematics across various industries, including trades, healthcare, business, and technology. Students will use practical applications of mathematical concepts, enhancing their understanding of how math is essential for professional success. Through real-world scenarios and hands-on activities, students will develop the skills necessary to perform key mathematical calculations relevant to their future careers.	
Enduring Understandings: ● Students will understand how to systematically collect, analyze, and interpret data to make well-informed decisions in professional environments. ● Students will recognize that strong problem-solving abilities are essential across all careers, enabling them to address and resolve complex issues effectively and methodically. ● Students will grasp that critical thinking and logical reasoning are vital for evaluating information and making sound decisions. ● Students will comprehend how various mathematical concepts are applied in specific career fields, including engineering, healthcare, business, and technology.	**Essential Questions:** ● How can you systematically collect, analyze, and interpret data to make informed decisions in professional settings? ● Why are strong problem-solving skills important across various careers, and how can they be used to address and resolve complex issues effectively? ● In what ways do critical thinking and logical reasoning contribute to evaluating information and making sound decisions? ● How are different mathematical concepts applied in specific career fields such as engineering, healthcare, business, and technology?

Unit 7 Standards	
STANDARD CODE	**STUDENTS WILL KNOW, BE ABLE TO, AND UNDERSTAND:**
PF.II.1.A	● I can evaluate how career choices impact my income and quality of life.
PF.III.2.A	● I can evaluate reports based on data to make informed decisions about my future.
G.SRT.A.1	● I can construct and analyze scale changes in geometric figures.

**priority standards indicated in bold*