MATH 12 CURRICULUM

Course 17012

This course is designed to be a 12th grade Math course for students who would benefit more from a practical application of math in personal finance management and other life applications of Math rather than taking a course in advanced Math. The course covers principles of banking including checking and savings, investment options, education financing, loans, rent, mortgages, and income taxes.

MATH 12 OUTLINE:

Goals	Skills	Summative Assessments	Time Frame	Main Resources
 Students will learn the basics of savings plans. Students will learn the basics of banking including checking accounts and the role of the Federal Reserve. Students will gain basic understanding of debt, credit cards, and credit scores. Students will learn the basics of money investment choices regarding rent vs a mortgage and various transportation options. Students will gain knowledge about post-secondary school financing. Students will learn the basic consumer protection laws in effect. Students will learn about various investment vehicles including stocks. 	 Describe best practices to use when making a financial plan/budget Compare account types based on liquidity, minimum required balance, & interest rate Using Your Account Evaluate different types of credit card fees and features Explain how credit scores can have an impact on future financial decisions Apply renting/owning considerations to specific transportation scenarios Calculate the cost associated with different insurance policies, based on the deductible and premium amounts List and prioritize the steps to resolve suspected consumer fraud/identity theft Complete an end of the year tax form. 	Mid-year and End of Year Benchmark Assessments,	1-year	Various sources and documents specific to the various financial scenarios.

MATH 12 MAP:

FRAME QUESTIONS Questions Unit 1: Savings Weeks 1-4 • There are many advantageous ways to save and grow morey. • There are many advantageous ways to save and grow morey. 1. Simple & compound & categorization • How does the frequency of compounding impact how your interest grows? 5.1.12.A Starting to Save • Loeffine simple and consequences of status • Loeffine simple and compound interest assuings vehicles Discussions • How does the frequency of a categorization • How does the impact how your interest grows? • How does the frequency of compound interest a batter option in one circumstance, but a worse option in another? • Starting to Save • Loeffine imple and compound interest assuings vehicles • I.Determine the impact of interest assuings vehicles • I.12.D • Weeks 1.4 • Weeks 1.4 • V. Describe common fraturest at 0 is assuings • V. Understand that compound interest at 0 is assuings • V. Understand that compound interest at 0 is assuings • V. Understand that compound interest at 0 is assuings • V. Understand that compound interest atas of isavings • V. Describe the impact of com	Unit 1: Savings • There are many advantageous ways to save and grow money. 1. Simple & interest Budget creation & categorization • How does the frequency of compounding interest a Budget creation 6.1.12.A Starting to Save I. Define simple and compound interest decisions made because interest grows? Guided Notes for all compound interest decisions made because interest grows? Guided Notes for all compound interest accord Discussions Views 1-4 9. String to Save money. • How can a budget help you save money? 6.1.12.B Starting to Save interest grows? • Liberime the impact of interest accord Starting to Save interest grows? • How can a budget compound interest accord • How can different savings vehicles but a worse option in another? • How can different rate of avings vehicles • Hou can different accord • Hou can different compound choice. II. I. dentify common savings vehicles Extended testing time (fin IEP) Cuiz Small group testing in another? • How can different rate of avings vehicles • V. Describe common features trate) of avings vehicles • V. Understand that compound interest accord Small group testing time (fin IEP) Small group testing time (fin IEP) • V. Describe trate of avings vehicles • V. Inderstand that compound interest rate) of avings vehicles • V. Describe trate of avings vehicles • V. Inderstand that compound interest rate) of avings vehicles to more intacoff to wo changes individuals, businesses, communities	TIME	BIG IDEAS	CONCEPTS	ESSENTIAL	STANDARDS	OBJECTIVES	DIFFERENTIATION	ASSESSMENT
Savings ways to save and grow money. advantageous ' avays to save and grow money. compound interest compound stateoptization 3. Savings vehicles & plans frequency of compound interest pathow balayous balans Predict the long-term compound interest savings vehicles a better option in one circumstrate, but a worse option in another? Predict the long-term compound interest savings vehicles a better option in one circumstrate, but a worse option in another? Predict the long-term compound interest savings vehicles a better option in one circumstrate, but a worse option in another? Predict the long-term compound therest savings vehicles a better option in one circumstrate, but a worse option in another? Predict the long-term compound therest savings vehicles (savings accume) I. Leafine simple and compound interest savings vehicles (savings accume) Reduced problem sets (fin IEP) Projects Numerical savings vehicles (savings accume) Frequency of savings vehicles (savings accume) Frequency of savings vehicles (savings accume) I. I. Identify common savings vehicles (savings accume) Reduced problem sets (fin IEP) Projects Savings vehicles (savings accume) Frequency of savings vehicles (savings accume) I. I. Identify common savings vehicles (sav	Savings ways to save advantageous ¹ wasys to save grow money. advantageous ¹ compounding students for each statistication & categorization 3. Savings vehicles & plans frequency of compounding impact of interest strongs. Predict the long-teacher compounding impact of interest social the compounding impact of interest compounding impact of interest accrued I. U dentify common savings vehicles & plans I. U dentify common savings vehicles & plans Projects Projects How each acticumstance, but a worse option in another? Savings vehicles a plans 6.11.2.0 for the production of social interest compound interest money? I. U dentify common savings vehicles for the production of goods and services. I. U dentify common savings vehicles for the production of goods and services. I. V. Dascribe common features for the production of goods and services. I. U dentify common savings vehicles for the production of goods and services. I. U dentify common savings vehicles for the production of goods and services. I. U dentify common savings vehicles for the production of goods and services. I. V. Dascribe the store of goods and services. I. I. U dentify common savings vehicles for the production of goods and services. I. V. Dascribe the store of goods and services. I. V. Dascribe the store of goods and services. I. V. Dascribe the store of goods and services. I. V. Dascribe the purpose of a budget. I. V. Dascribe the purpose of a budget. I. V. Dascribe the purpose of a budget. I. V. Dascribe be bat protects to use when making a franchal digebraic VII. Describe be bat protects to us	FRAME			QUESTIONS				
Simplify/reduce a rational algebraic		FRAME Unit 1: Savings	There are many advantageous ways to save and	 Simple & compound interest Budget creation & categorization Savings vehicles 	 QUESTIONS How does the frequency of compounding impact how your interest grows? How can a budget help you save money? How can different savings vehicles be a better option in one circumstance, but a worse option 	 6.1.12.A Predict the long-term consequences of decisions made because of scarcity. 6.1.12.B Evaluate the economic reasoning behind a choice. Evaluate effective allocation of resources for the production of goods and services. 6.1.12.C Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations. 6.1.12.D Predict how changes in incentives may affect the choices made by individuals, businesses, communities, and nations. A1.1.1.5.1 Add, subtract and/or multiply polynomial expressions (express answers in simplest form – nothing larger than a binomial multiplied by a trinomial). A1.1.1.5.3 Simplify/reduce a rational algebraic expression. 	 Starting to Save I. Define simple and compound interest II. Determine the impact of interest rates and time on total interest accrued III. Identify common savings vehicles (savings account, CDs, MMAs) IV. Describe common features (liquidity, minimum balance, interest rate) of savings vehicles Compound Interest V. Understand that compound interest leads to more interest over time than simple interest VI. Describe the impact of compounding frequency on total interest accrued Budgeting Basics VII. Describe the purpose of a budget VIII. Describe best practices to use when making a financial 	Guided Notes for all students for each new process or concept. Reduced problem sets (if in IEP) Extended testing time (if in IEP) Small group testing	Discussions Projects Homework Participation Quiz Test Presentations

	I						1
				expressions to represent rational numbers.			
				A2.1.2.1.3 Simplify/evaluate expressions involving multiplying with exponents (e.g. $x6 * x7 =$ x13), powers of powers (e.g., (x6)7=x42) and powers of products (2x2)3=8x6 (limit to rational exponents). A2.1.2.1.4 implify or evaluate expressions involving logarithms and exponents (e.g. log28 = 3 or log42 = $\frac{1}{2}$). A2.1.2.2.2 Simplify rational algebraic expressions. CC.2.2.HS.D.2 Write expressions in			
				equivalent forms to solve			
				problems.			
Unit 2: Banking	There are many advantageous	1. Types of Banks 2. How the Federal	Why do different banks exist?	6.1.12.A Predict the long-term	The Banking System I. Examine the 	Guided Notes for all students for each	Discussions
Weeks 5-8	advantageous ways to save,	Reserve System	 Why do different 	consequences of decisions made because	different types of	new process or	Projects
VVEEKS D-8	grow, and spend money.	Account types	types of accounts exist?	of scarcity.	financial institutionsII. Understand the	concept.	Homework
		(checking, savings, CDs,		6.1.12.B	characteristics of different bank types	Reduced problem sets (if in IEP)	Participation
		MMAs) 4. Using an		Evaluate the economic reasoning behind a	(retail vs. online vs. credit union)	Extended testing	Quiz
		account; Writing checks		choice. Evaluate effective	III. Introduce the structure & function	time (if in IEP)	Test
				allocation of resources for the production of	of the Federal Reserve Choosing	Small group testing (if in IEP)	Presentations
				goods and services.	Your Account		Dia dan Ch. J
				6.1.12.C Analyze the opportunity	 IV. Understand some basic terms/features of 		Binder Checks
				cost of decisions made by individuals, businesses,	accounts (liquidity, FDIC-insured,		
				communities, and nations.	minimum balance)V. Know the different types of		
					unerent types of		

	6.1.12.D Predict how changes in incentives may affect the choices made by individuals, businesses, communities, and nations. A1.1.1.5.3 Simplify/reduce a rational algebraic expression. A2.1.2.1.1 Use exponential expressions to represent rational numbers. A2.1.2.1.2 Simplify/evaluate expressions involving positive and negative exponents and/or roots (may contain all types of real numbers - exponents should not exceed power of 10). A2.1.2.1.3 Simplify/evaluate expressions involving multiplying with exponents (e.g. x6 * x7 = x13), powers of powers (e.g., (x6)7=x42) and powers of products (2x2)3=8x6 (limit to rational exponents). A2.1.2.1.4 Simplify or evaluate expressions involving logarithms and exponents (e.g. log28 = 3 or log42 = $\frac{y_2}{2}$.	accounts (checking, MMA, savings, CD) • VI. Compare account types based on liquidity, minimum required balance, & interest rate Using Your Account • VII. Identify common account fees & how they can occur • VIII. Know the parts/function of the check • IX. Understand how to monitor/balance your account	
	Simplify or evaluate expressions involving logarithms and exponents (e.g. log28 =		
	A2.1.2.2.2 Simplify rational algebraic expressions.		
	CC.2.2.HS.D.2 Write expressions in		

				equivalent forms to solve problems.			
Unit 3: Payment Types Weeks 9- 12	There are many advantageous ways to spend money.	 Payment types Credit card offers, terms & billing How to manage existing debt 	How can understanding credit and debt save you time and money?	 6.1.12.A Predict the long-term consequences of decisions made because of scarcity. 6.1.12.B Evaluate the economic reasoning behind a choice. Evaluate effective allocation of resources for the production of goods and services. 6.1.12.C Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations. 6.1.12.D Predict how changes in incentives may affect the choices made by individuals, businesses, communities, and nations. A1.1.1.5.3 Simplify/reduce a rational algebraic expression. A2.1.2.1.1 Use exponential expressions to represent rational numbers. A2.1.2.1.3 Simplify/evaluate expressions involving multiplying with exponents (e.g. x6 * x7 = x13), powers of powers (e.g., (x6)7=x42) and powers of products (2x2)3=8x6 (limit to 	 Payment Types I. Interpret the differences in payment types, including debit cards, credit cards, pre-paid cards, cash advances, and payday loans II. Understand when & when not to use different payment types EverFi Financial LiteracyTM Teacher Resources Course Learning Objectives Credit Cards III. Evaluate different types of credit card fees and features IV. Compare credit card offers based on different scenarios Manage Your Debt V. Understand how items purchased with credit can end up costing more VI. Understand how paying the minimum can still lead to long-term debt repayment VII. Use a credit card bill to answer questions about debt repayment 	Guided Notes for all students for each new process or concept. Reduced problem sets (if in IEP) Extended testing time (if in IEP) Small group testing (if in IEP)	Discussions Projects Homework Participation Quiz Test Presentations Binder Checks

				netical components ()			
Unit 4: Credit Scores	 There are many advantageous ways to invest and spend 	 Credit scores & bureaus Actions that raise/lower your 	 How does knowing what goes into a credit score help you? 	rational exponents). A2.1.2.2.2 Simplify rational algebraic expressions. CC.2.2.HS.D.2 Write expressions in equivalent forms to solve problems. 6.1.12.A Predict the long-term consequences of decisions made because	Introduction to Credit Scores • I. Understand the basics of credit	Guided Notes for all students for each new process or concept.	Discussions Projects
Weeks 13- 16	money.	credit score		of scarcity. 6.1.12.B Evaluate the economic reasoning behind a choice. Evaluate effective allocation of resources for the production of goods and services. 6.1.12.C Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations. 6.1.12.D Predict how changes in incentives may affect the choices made by individuals, businesses, communities, and nations.	 scores and their importance II. Identify the financial habits associated with certain credit scores What Affects Your Credit Score III. Understand the basics behind credit score calculations IV. Examine how financial behaviors can impact a credit score Your Credit Report V. Understand how to request, read, and monitor your annual credit report VI. Select the appropriate steps to monitor your credit report and fix errors VII. Explain how credit scores can have an impact on future financial decisions 	Reduced problem sets (if in IEP) Extended testing time (if in IEP) Small group testing (if in IEP)	Participation Quiz Test Presentations Binder Checks
Unit 5: Higher Education	There are many advantageous ways to invest, save, and spend	 Available student loan financing options FAFSA 	 Why is it important to start saving for college early? How can 	6.1.12.A Predict the long-term consequences of decisions made because	Investing in Higher Education • I. Describe why higher education	Guided Notes for all students for each new process or concept.	Discussions Projects
Weeks 16- 19	 Investing in higher education is investing in 	application process 3. Steps of the student loan	• How can understanding the FAFSA impact your student loans?	of scarcity. 6.1.12.B Evaluate the economic	 has a high potential return on investment (ROI) II. Identify typical 	Reduced problem sets (if in IEP)	Homework Participation

your future.	process	reasoning behind a	action steps that	Extended testing	Quiz
your luture.	process	choice. Evaluate	students should	time (if in IEP)	Quiz
		effective allocation of	take on the path to		Test
		resources for the	higher education	Small group testing	
		production of goods and	Paying for Higher	(if in IEP)	Presentations
		services.	Education		
			 III. Identify and 		Binder Checks
		6.1.12.C	compare potential		
		Analyze the opportunity cost of decisions made	sources of higher		
		by individuals,	education financing		
		businesses,	 IV. Describe the advantages of 		
		communities, and	federal student		
		nations.	loans		
			 V. Compare 		
		6.1.12.D	subsidized &		
		Predict how changes in	unsubsidized		
		incentives may affect the	federal student		
		choices made by	loans		
		individuals, businesses, communities, and	 VI. Explain the 		
		nations.	purpose and		
		nauons.	process of filing the		
		CC.1.2.11-12.G	FAFSA form		
		Integrate and evaluate			
		multiple sources of			
		information presented in			
		different media or			
		formats (e.g. visually,			
		quantitatively) as well as			
		in words in order to			
		address a question or solve a problem.			
		solve a problem.			
		CC.1.2.11-12.J			
		Acquire and use			
		accurately general			
		academic and domain-			
		specific words and			
		phrases, sufficient for			
		reading, writing, speaking, and listening			
		at the college and career			
		readiness level;			
		demonstrate			
		independence in			
		gathering vocabulary			
		knowledge when			
		considering a word or			
		phrase important to			
		comprehension or			
		expression.		l	

Unit 6:	Some ways of	1. Pros/Cons of	• When does owning	6.1.12.A	Renting vs. Owning	Guided Notes for all	Discussions
Renting Vs. Owning	investing and spending are more	renting and owning 2. Mortgage basics	become more advantageous than renting or leasing?	Predict the long-term consequences of decisions made because	I. Understand the differences between repting leasing and	students for each new process or concept.	Projects
Weeks 20- 24	advantageous than others	3. Transportation and housing	renting of leasing?	of scarcity.	renting, leasing and owningII. Define & provide	Reduced problem	Homework
	depending on your	choices		6.1.12.B Evaluate the economic	an example of appreciating and	sets (if in IEP)	Participation
	circumstances.			reasoning behind a choice. Evaluate	depreciating assets Housing Choices	Extended testing time (if in IEP)	Quiz
				effective allocation of resources for the	 III. Explain the advantages and 	Small group testing	Test
				production of goods and services.	disadvantages of renting/owning a	(if in IEP)	Presentations
				6.1.12.C	home • IV. Apply		Binder Checks
				Analyze the opportunity cost of decisions made	renting/owning considerations to		
				by individuals, businesses, communities, and	specific housing scenarios		
				nations.	V. Define important housing terminology (mortgage, down		
				6.1.12.D Predict how changes in	payment)VI. Identify		
				incentives may affect the choices made by	components of a standard housing		
				individuals, businesses, communities, and	lease agreement Transportation		
				nations. A1.1.1.5.3	ChoicesVII. Explain the		
				Simplify/reduce a rational algebraic	advantages and disadvantages of		
				expression.	leasing/owning a car		
				A2.1.2.1.1 Use exponential	 VIII. Apply renting/owning considerations to 		
				expressions to represent rational numbers.	specific transportation		
				A2.1.2.1.2 Simplify/avaluate	scenarios IX. Examine the 		
				Simplify/evaluate expressions involving positive and negative	explicit and implicit costs of buying a		
				exponents and/or roots (may contain all types of	car		
				real numbers - exponents should not			
				exceed power of 10).			
L				A2.1.2.1.3			

Unit 7: Insurance & Taxes Weeks 25- 29	• There are advantageous ways to report the money you've earned, invested, and spent.	 Tax Forms – W- 2, W-4, 1040EZ Types of insurance Insurance out-of- pocket costs 	 For what reason might people need different tax forms? How can investing in insurance save you money? 	Simplify/evaluate expressions involving multiplying with exponents (e.g. x6 * x7 = x13), powers of powers (e.g., (x6)7=x42) and powers of products (2x2)3=8x6 (limit to rational exponents). A2.1.2.1.4 Simplify or evaluate expressions involving logarithms and exponents (e.g. log28 = 3 or log42 = ½). A2.1.2.2.2 Simplify rational algebraic expressions. CC.2.2.HS.D.2 Write expressions in equivalent forms to solve problems. 6.1.12.A Predict the long-term consequences of decisions made because of scarcity. 6.1.12.B Evaluate the economic reasoning behind a choice. Evaluate effective allocation of resources for the production of goods and services. 6.1.12.C Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations. 6.1.12.D Predict how changes in incentives may affect the choices made by	Insurance I. Recognize that the primary purpose of insurance is to mitigate risk II. Describe the coverage provided by different insurance types (ex. auto, renters, homeowners, health, disability, and life insurance) III. Define common terminology associated with insurance policies (ex. deductible, premium, copay, claim, coverage, policy) IV. Calculate the cost associated with different insurance policies, based on the deductible and	Guided Notes for all students for each new process or concept. Reduced problem sets (if in IEP) Extended testing time (if in IEP) Small group testing (if in IEP)	Discussions Projects Homework Participation Quiz Test Presentations Binder Checks
--	--	---	--	--	--	--	--

Unit 8:	 It's important to 	1. Consumer	What role does	individuals, businesses, communities, and nations. CC.1.2.11-12.B.b Answer an inferential question about a text CC.1.2.11-12.G Integrate and evaluate multiple sources of information presented in different media or formats (e.g. visually, quantitatively) as well as in words in order to address a question or solve a problem. CC.1.2.11-12.J Acquire and use accurately general academic and domain- specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. CC.1.2.11-12.K Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade-level reading and content, choosing flexibly from a range of strategies and tools. 6.1.12.A	 premium amounts V. Explain how insurance companies evaluate policies based on individual risk Taxes VI. Identify and explain the purpose of common taxes (ex. property, sales, capital gains, state/federal income tax) VII. Use components of a paystub to answer questions about income and taxation VIII. Identify taxes and other deductions that appear on a typical paystub IX. Identify and explain the purpose of common tax forms (ex. W-2, W-4, and 1040-EZ) X. Practice completing end-of- year tax forms 	Guided Notes for all	Discussions
Consumer	stay safe when	protection laws &	common sense play	Predict the long-term	 I. Identify strategies 	students for each	
Protection	investing and spending money.	organizations 2. How to	in protecting yourself against	consequences of decisions made because	that can be used to steal your identity or	new process or concept.	Projects
Weeks 30-	,	recognize,		of scarcity.			Homework

32	T	protect & resolve	identity theft?		commit consumer	Reduced problem	
52		identity theft	What help is	6.1.12.B	fraud	sets (if in IEP)	Participation
			available when protecting yourself against identity	Evaluate the economic reasoning behind a choice.	II. Identify ways your personal information can be	Extended testing time (if in IEP)	Quiz
			theft?	Evaluate effective allocation of resources	used by identity thieves	Small group testing	Test
				for the production of goods and services.	 III. Recommend ways to protect 	(if in IEP)	Presentations
				6.1.12.C	personal information		Binder Checks
				Analyze the opportunity cost of decisions made by individuals,	• IV. Describe ways to identify whether identity theft or		
				businesses, communities, and nations.	consumer fraud has occurred		
				6.1.12.D	 V. Explain the purpose of consumer 		
				Predict how changes in incentives may affect the choices made by	protection laws and organizations		
				individuals, businesses, communities, and nations.	Identity Protection VI. Categorize personal information or		
					documents as sensitive or not		
					 vill. Assess when personal 		
					information should be provided		
					VIII. List and prioritize the steps		
					to resolve suspected consumer		
				0.4.40.4	fraud/identity theft		
Unit 9: Investing	There are many advantageous	1. How stocks, bonds, and	Why are there different	6.1.12.A Predict the long-term	 Investing in Your Future 	Guided Notes for all students for each	Discussions
Weeks 33-	ways to invest money.	mutual funds work	classifications for investment	consequences of decisions made because	 I. Understand that re-investment and 	new process or concept.	Projects
36		2. Importance of diversification	accounts?How can your	of scarcity.	time can increase compounding	Reduced problem	Homework
		 Understanding stock exchanges 	investment accounts change	6.1.12.B Evaluate the economic	returns II. Compare and 	sets (if in IEP)	Participation
		and tickers	and grow as you earn money?	reasoning behind a choice. Evaluate	contrast different retirement plan	Extended testing time (if in IEP)	Quiz
				effective allocation of resources for the	options (401k, 403b, IRAs)	Small group testing	Test
				production of goods and	III. Describe how	(if in IEP)	Presentations

	services. 6.1.12.C Analyze the opportunity cost of decisions made by individuals, businesses, communities, and nations. 6.1.12.D Predict how changes in incentives may affect th choices made by individuals, businesses, communities, and nations.	 IV. Describe the differences between key investing options (stocks, bonds, mutual funds, index funds) V. Explain why companies/govern ments typically issue stocks & 	Binder Checks
--	---	---	---------------