

Granite School District

## **Business Math & Personal Finance (52.0311) (District)**



District > Intermediate > Business Education > Business Math & Personal Finance (52.0311) (District) > Juett, David; Paulsen, Erin

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Whole Numbers & Decimals (Week 1, 2 Weeks)	How does the ability to do basic math calculations help me?	Students will understand:     the difference between whole numbers and decimals     how to work with whole numbers and decimals     strategies to solve word problems for whole numbers and decimals	Students will be able to:  read and write numbers properly round numbers  add, subtract, multiply and divide whole numbers and decimals estimate solve word problems involving whole numbers and decimals	whole numbers decimals rounding sum difference product divisor	Math Worksheets Performance: Authentic Task  Quiz Summative: Test: Common Unit Exam
Fractions (Week 3, 1 Week)	How are fractions used in everyday business calculations?	Students will be able to define and understand how to do math exercises involving:  • fractions • numerators • denominators • proper fractions • improper fractions • mixed numbers • ratios	<ul> <li>Change a mixed number to an improper fraction</li> <li>Change an improper fraction to a whole or mixed number</li> <li>Add, Subtract, multiply and divide fractions</li> <li>Add, Subtract, multiply and divide mixed numbers</li> <li>Convert a fraction to a decimal and a decimal to a fraction</li> <li>Convert Ratios to a decimal</li> </ul>	fraction numerator denominator proper fraction improper fraction mixed number	Math Worksheets Formative: Performance: Authentic Task  Quiz Summative: Test: Common

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Percents (Week 4, 1 Week)	Why is it important to be able to work with percentages, particularly in a business setting, but also in one's everyday life?	Students will be able to define and work with math calculations using:  • percents • formulas • bases • rates • portions	Convert decimals to percents and percents to decimals     Convert fractions to percents and percents to fractions     Use portion, base, and rate to solve percent formulas     Solve percentage increase and decrease problems     Find rates of increase or decrease	<ul><li>percent</li><li>formula</li><li>base</li><li>rate</li><li>portion</li></ul>	Math worksheets Formative: Performance: Authentic Task  Unit Exam Summative: Test: Common
Trade & Cash Discounts (Week 5, 2 Weeks)	What are trade discounts and how are they calculated?	Students will understand:  • terminology used in trade discounts  • the difference between cash and trade discounts  • how Receipt of Goods (ROG), End of Month (EOM) and Free on Board (FOB) influences calculations	<ul> <li>calculate net price for a single and series of trade discounts</li> <li>find an equivalent single discount rate</li> <li>calculate a cash discount and the net amount due</li> <li>calculate time (days) as they apply to trade discounts</li> <li>determine the amount credited for a partial payment</li> <li>measure the benefit of cash discounts</li> </ul>	Manufacturers Wholesales Retailers Consumers Trade Discount Cash Discount List price Net Price Invoice Credit Period Discount Period Cash discount rate FOB Destination FOB shipping point Receipt of Goods (ROG) End of Month (EOM) Chain (Series) Trade Discount	Business Math Worksheets Formative: Performance: Authentic Task

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Markup & Markdown (Week 7, 1 Week)	How do businesses decide how much to charge customers? Why is my favorite store so expensive?	Students will know:  • the markup formula  • the effects of markdowns	Students will be able to:  make calculations when markup is a percentage of cost  make calculations when markup is a percentage of selling price  calculate percentage markups  convert percentage markups  calculate markdown and percentage markdown  price a product for which a markdown is anticipated (perishable items)  calculate break-even volume  identify fixed and variable costs	markup markdown percent markup on cost percent markup on selling price dollar markdown reduced price percent markdown absolute or gross loss operating loss break-even price profit fixed cost variable cost	Business Math Authentic Task Worksheets Formative: Performance: Authentic Task  Quiz Summative: Test: Common
Simple & Compound Interest (Week 8, 2 Weeks)	How does money grow? How can interest affect me negatively and positively?	<ul> <li>how compound interest differs from simple interest</li> <li>why interest rates are important in investing and saving</li> <li>how term, rate, and principal affects interest earned</li> <li>the Rule of 72</li> <li>the relationship between risk and return</li> </ul>	Students will be able to: Compute simple interest and maturity valueloans stated in months or years Count days and determine maturity date loans stated in days Compute simple interestloans state in days Solve for P (Principal) and T (Time) Solve for R (Rate) Compute compound interest for different compounding periods (present value & future value) Calculate APY (Annual percentage Yield) Use the Rule of 72 Calculate Interest for Promissory Notes and Simple Discount Notes Calculate interest for Installment Buying and Early Pay-off calculations.	Rule of 72 Simple Interest Compound Interest Principal Rate of Interest Time or Term Due date or Maturity date Maturity value Annual Percentage Rate (APR) Ordinary Interest periodic rate	Business Math Worksheets Formative: Performance: Authentic Task Unit Exam Summative: Test: Common

Unit Es	ssential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Financial no Goals H (Week 10, 2 bi Weeks) H	How do my decisions ow affect my future? How do I avoid being roke in the future? How does bankruptcy influence me and thers?	<ul> <li>how one's personal values affect financial choices.</li> <li>the difference between financial goals for consumers and businesses: short-term, mid-term, long-term, and retirement.</li> <li>the components of a financial plan: goals, net worth statement, budget, income and expense record, insurance plan, saving and investing.</li> <li>what a business financial plan is and how it works.</li> <li>that there are consequences for excessive debt.</li> <li>types of bankruptcy and what each mean.</li> </ul>	Students will be able to:  create a plan to reach a specific financial goal.  list advantages of designing and following a personal financial plan.	goals Net Worth Statement financial plan budget income and expense record retirement Chapter 7 Bankruptcy Chapter 11 Bankruptcy Chapter 13 Bankruptcy	Financial Plan Formative: Performance: Authentic Task Students will create personal as well as business financial plans Quiz Summative: Test: Common

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Influences on Financial Behavior (Week 12, 2 Weeks)	Are my financial decisions influenced by friends, family, and/or marketing? Am I financially responsible in the buying decisions I make? Do I buy things even though sometimes I don't have enough money? How does my background and/or culture influence what I spend money on?	how limited financial resources affect the choices people make     how peer pressure can influence purchase decisions     that emotions can influence behavior	Analyze the impact of marketing (advertising, sales strategies and techniques) on purchasing decisions.	impulse buying delayed payment scarcity needs wants	The Power of Marketing Formative: Performance: Authentic Task Students will analyze various advertisements and discuss how marketing has affected some of the own personal buying decisions.  Quiz Summative: Test: Common
Decision Making in Purchasing Behavior (Week 14, 1 Week)	Are warranties and service contracts worth the money? How do I decide what to spend my money on? How has e-commerce changed businesses and influenced my purchasing decisions and habits?	The definition of warranties, service contracts and e-commerce. The difference between goods and services. The difference between needs and wants. What e-commerce looks like.	<ul> <li>classify needs and wants.</li> <li>classify goods and services.</li> <li>determine whether specific extended warranties are a good investment or not.</li> </ul>	warranty service contract e-commerce goods services needs wants	Warranties and Service Contracts assignment Formative: Performance: Authentic Task Students will researd a variety of warrantie and service contract and determine their relative value and worth.  Quiz Summative: Test: Common

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Money Management (Week 15, 2 Weeks)	Why is a budget important? How does one implement but more importantly adhere to a budget? How do checking accounts, as well as debit and credit cards work and what do I need to know in order to manage/maintain them?	Students will know:  what a budget is, how to create one, and most importantly how to adhere to one.  what a checking account is and how to manage one.  what debit and credit cards are and how to manage and maintain them.  the purchase costs of using cash, checks, and debit cards vs. credit including credit and store cards  how to use of available technology associated with the banking and financial industry (debit cards, electronic checks and deposits, bill pay, online access to accounts, etc)	<ul> <li>create and maintain a budget</li> <li>choose the best option for checking accounts as well as debit and credit cards comparing services, cost, and interest rates.</li> <li>keep track of a checking account balance (including debit card transactions)</li> <li>reconcile a bank statement.</li> <li>adjust a checking account balance after the reconciliation.</li> <li>write a check properly.</li> <li>use the available technology within the banking and finance industry (debit cards, electronic checks and deposits, bill pay, online access to accounts, etc)</li> </ul>	budget check payee payor non-sufficient funds check debit card ATM ETF on-line banking bank fees interest bank statements outstanding deposit reconciliation	Personal Budget Formative: Performance: Authentic Task Students will create budget  Checing Account Basics Formative: Performance: Authentic Task Students will learn to basic components of a checking account.  Unit Exam Summative: Test: Common

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Careers (Week 17, 2 Weeks)	What do I want to do for my life's career? What is the impact of education and lifetime earning potential? What skills (both hard and soft) are critical for success in the workplace? Am I cut-out to be self employed?	the correlation between education and income potential     the importance of worker's skills (soft and hard), economic conditions, as well as the supply and demand for workers as they pertain to getting and keeping a job.     the risks and rewards of entrepreneurship/selfemployment.     options to reduce educational expenses	<ul> <li>Analyze the costs and benefits of developing new skills for the workplace.</li> <li>Develop career plan(s) that include educational requirements, skill development, and income potential.</li> <li>Compare salary vs. hourly career opportunities using data from charts/tables (e.g., mean, median, mode, range, outliers).</li> <li>Find financial resources to assist with educational opportunities.</li> </ul>	entrepreneurship income potential mean median mode range outliers FAFSA scholarships grants	UtahFutures Formative: Performance: Authentic Task Students will access the UtahFutures site and complete various options to discover more about their career interests as well as the requirements for specific careers.  Career Outlook and Assessment assignment Formative: Performance: Authentic Task Students will researd career options.  FAFSA Formative: Performance: Authentic Task Students will fill out the Federal Application for Federal Student Aid (FAFSA)

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Income (Week 19, 2 Weeks)	What are some sources of income? Is salary the only factor that I should consider when making career decisions? How important are benefits such as health insurance, sick-leave, vacation time, unemployment insurance, workers' compensation and retirement.? How might cost-of-living affect the decision of where I want to work? What are taxes and how do they affect me? Where does all of the money go from my paycheck?	<ul> <li>sources of income (e.g., wages, investments, and self- employment).</li> <li>the difference between earned and unearned income (inheritance, dividends/royalties, rent, gifts, etc)</li> <li>common employee benefits (e.g., health insurance, leave, retirement, unemployment insurance, workers' compensation).</li> <li>how cost of living and income change in various geographical areas</li> <li>how economic conditions affect income and expenses</li> <li>the difference between wealth and income</li> <li>the reasons for taxation and uses of tax revenues</li> <li>the purposes of Social Security and Medicate taxes</li> <li>how individual tax returns relate to withholdings and tax refunds vs. tax due</li> </ul>	<ul> <li>calculate gross pay per pay period (e.g., salaries, wages, commissions, overtime, tips, and piece-rate).</li> <li>calculate federal, state and local payroll deductions by referencing tax charts and tables.</li> <li>calculate net pay from an employee payroll record.</li> <li>to complete personal state and federal income tax returns, W-4 and I-9 forms.</li> <li>calculate Social Security and Medicare taxes.</li> </ul>	wages investments self- employment earned and unearned income inheritance dividends/royalties rent gross pay salaries wages commissions overtime tips piece-rate health insurance leave (as a benefit) retirement unemployment insurance workers' compensation cost-of-living wealth withholdings revenue Social Security Medicare net pay tax refund	Income Tax forms Formative: Performance: Authentic Task Students will fill out their own income tax forms if they are working or mock forms if they do not currently have a job.  Pay Stub excercise Formative: Performance: Authentic Task Students will understand and be able to calculate the various deductions from their pay-check including taxes, insurance, savings plans, etc.  Quiz Summative: Test: Common

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Home Ownership and Mortgage Loans (Week 21, 2 Weeks)	Is it always the smartest decision to purchase a house? What costs can I expect with renting vs. buying?	<ul> <li>the components involved in a principal loan amount calculation (e.g., loan, closing costs, down payment).</li> <li>the purpose of an escrow account (e.g., property taxes and homeowner's insurance)</li> <li>how interest rate and length of loan affect payment.</li> <li>when mortgage insurance premiums are required and how these premiums affect payment amount.</li> <li>the difference between types of mortgages (e.g., ARM, Balloon, Home Equity Line).</li> <li>the responsibilities and related costs associated with renting vs. home/business ownership including (HOA fees and typical inclusions, costs related to home improvement/repair, requirements for furnishing and landscaping,</li> <li>obligations for utilities (gas, power, Internet, cable, water, sewer, garbage).</li> </ul>	Students will be able to:  calculate, read and interpret a mortgage amortization schedule.  calculate how principal and interest are allocated in a monthly payment.  calculate how principal and interest are allocated in a monthly payment.  calculate the total interest and total cost paid over the life of a loan.  compute closing costs (e.g., title search, realtor, appraisal, HOAtransfer).  calculate amount required for down payment given certain percentages.	Principal loan Closing costs Down payment Escrow Homeowner's insurance Realtor Appraisal HOA ARM Loan Balloon Loan Home Equity Line Fixed Loan Variable Loan	Loan Worksheet Formative: Performance: Authentic Task Students will be able to calculate the various components for a home loan.  Quiz Summative: Test: Common

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Insurance (Week 23, 1 Week)	What is the purpose of insurance? Why am I required to have certain types of insurance? How do I know what my options are for purchasing insurance and where can I get the best rates?	Students will understand:  the purposes of insurance and risk management.  insurance terminology (e.g., term, whole life, deductible, premium, grace period, and beneficiary).  how insurance and other risk-management strategies protect against financial loss.  changing life insurance needs at various life stages and lifestyles (e.g., gender, smoking, genetics, grades, age, and marital status).  the importance of estate planning (e.g., wills, trusts).	Students will be able to:  • budget for common types of insurance (e.g., automobile, health, homeowner's, renter's, reverse mortgage, life, long-term disability).  • calculate the consequences of being under-insured.	insurance risk term whole life deductible premium grace period beneficiary estate planning will trust long-term disability	Insurance Chart Formative: Performance: Authentic Task Students will create chart showing variou types of insurance, the coverage provide by each and the costs associated.  Unit Exam Summative: Test: Common
Savings and Investments (Week 24, 2 Weeks)	Should I save my money or invest it? What are some various options for investing money? What is the difference between simple and compound interest and how might they affect my future?	ways to save for short and long-term financial goals (e.g., automatic payroll deduction to savings account, certificate of deposit, mattress, money market accounts).      reasons to save (e.g., emergencies, job loss, college, home, retirement).      how government regulations protect.	<ul> <li>Students will be able to:</li> <li>compare various sources of investment information (e.g., prospectuses, annual reports, financial publications, online information)</li> <li>use information to make informed decisions when investing</li> <li>find ways to buy/sell investments (e.g., full service and discount brokers, investment advisors, on-line brokers)</li> <li>compare and calculate the risk, return, liquidity, and costs for</li> </ul>	mutual funds stocks bonds diversification dollar-cost averaging day-trading flipping houses 401k IRA SEC SIPC FDIC NCUA FSLIC money market	Investment Research Assignment Formative: Oral: Oral Report Students will researc and report on various investments tools including a stock prospectus, an annu report and financial publications.

certificate of deposit

regulations protect

Unit	f	Essential Questions	Content  Content  NCUA, FSLIC).  the value of investing	Skills savings and investments (e.g., P/E ratio, dividend yield).	return	Formative & Summative Assessments

investments in the financial planning process.

- the types of investment vehicles (e.g., mutual funds, stocks, bonds, real estate, precious metals).
- strategies for investing (e.g., diversification, dollar-cost averaging, levels of risk).
- the difference between long-term and shortterm investments (e.g., day trading, flipping houses, 401k, IRA).
- how government regulations can protect investors (e.g., SEC, SIPC).
- the effects of inflation on savings and investments
- the relationship between risk and return.
- appropriate financial products for different financial goals (e.g., savings accounts, stocks, bonds, mutual funds, real-estate).

dividend yield

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Retirement Planning (Week 26, 3 Weeks)	How much money do I need to retire? When do I need to start saving in order to have enough to retire? What are some different ways I can save for retirement? How can I make a financial plan to help prepare me for the day that I eventually retire?	Students will know:  the difference tax-free vs. tax-deferred retirement plans.  the role of individual responsibility in planning for retirement.  the power of compound interest and the importance of starting early in implementing a financial plan for retirement.	Students will be able to:  calculate financial resources needed for specific retirement activities and lifestyles.  Compare the characteristics of retirement plans (e.g., individual, employer sponsored, Social Security).  Calculate net worth to understand the implications of building wealth for retirement.	tax-deferred retirement plans ROTH IRA net worth employer match	Retirement options assignment Formative: Performance: Authentic Task Students will do research on various ways to prepare for retirement and will report their findings class.  Quiz Summative: Test: Common

Unit Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Consumer and ways that people are defrauded out of their money and property? How can I safeguard assets? What are some ways avoid bankruptcy/	the purposes and features of consumer protection laws, agencies, and sources	Students will be able to identify possible actions that they should take in order to safeguard their assets as well as avoid excessive debt and collection practices.	disclosure information grace period payment penalties Ponzi scheme Pyramid scheme affinity fraud	Consumer Protection Laws Formative: Performance: Authentic Task Students will researd various consumer protection laws and discuss their practical applications in society.  Contracts Formative: Performance: Authentic Task Students will obtain and analyze a financial contract discussing its pertinent components.  Quiz Summative: Test: Common

Unit	Essential Questions	Content	Skills	Vocabulary	Formative & Summative Assessments
Economics (Week 30, 2 Weeks)	Why are gas prices so low at some times but not at others? How does demand affect prices in a free-market economy? What does it mean to be in a recession?	<ul> <li>how economic decisions are made, which products are produced, how they are distributed and how they are consumed.</li> <li>the characteristics of a free market enterprise and how competition is reflected in pricing of goods/services.</li> <li>benefits of living in a capitalistic society and understanding the risks/rewards of entrepreneurship.</li> <li>the use and value of business plans.</li> <li>the role of government involvement in our economic system.</li> <li>the principle and purpose of Monetary and Fiscal Policy.</li> <li>how productivity in business influences the economy (GDP, GNP, standard of living).</li> </ul>	<ul> <li>analyze the law of supply and demand (equilibrium price, surplus, shortage).</li> <li>use economic reasoning to make effective financial decisions (cycles of economy).</li> </ul>	economy free market enterprise capitalist monetary policy fiscal policy GDP GNP Standard of Living Equilibrium price Surplus Shortage	The Free Enterprise System Formative: Oral: Oral Report Students will research, write and then report to the class on the merits/drawbacks of the Free Enterprise System. Quiz Summative: Test: Common
Credit for Business and Consumers (Week 32, 1 Week)	Is a credit (borrowing money now with the promise to pay it back later for a charge) good or bad? How does a credit actually affect me personally?	<ul> <li>the history and role of credit.</li> <li>basic types of debt/loans (e.g., credit cards, installment loans, service credit, revolving credit,</li> </ul>	• calculate, analyze and compare costs associated with the use of credit (e.g., finance charges, interest, late fees, default rates, closing costs, average daily balance).	credit cards installment loans service credit revolving credit mortgage loans student loans payday loans predatory lending bounced checks	Unit Exam Summative: Test: Common Credit Research Assignment Formative: Performance: Authentic Task

Unit Budgeting/Mon Management (Week 33, 2 Weeks)	Essential Questions How can I save money for college? How can I live the life I want without going into excessive debt? How does one create and stick to a budget?	Content Students will know:  - opportunity costs and trade-offs in budget implementation.  - the impact of charitable contributions on the overall budget structure.  - the risks associated with gambling losses on a household budget.  - the social, business and personal consequences of not following a budget.  - various tools available for keeping track of budgets (e.g., envelope systems, computer programs, paper tracking, and digital apps).  - purchase costs using cash, check, debit cards, smart cards, credit cards and store cards.  - the impact and related expenses of major purchases on budgeting (e.g., sales tax, property tax, registration, accessories).	Skills Students will be able to:  • to graph the income and expense portions of budgets using pie charts, line graphs, bar graphs, etc.  • develop, monitor, and evaluate a personal budget.  • budget for college tuition costs, living expenses, school expenses, long-term costs of student loans, value of grants and scholarships, and filling out the Free Application for Federal Student Aid (FAFSA).	vocabulary opportunity cost budget envelop systems smart cards store cards property tax Free Application for Federal Student Aid (FAFSA)	Formative & STANFA Atlassignment Assessivents Performance: Authentic Task Seniors will fill out the FAFSA  Personal Budget/Goal Setting Assignment Formative: Performance: Authentic Task Students will refine their personal budger by setting some short, medium, and long term goals including how they will finance their college education, automobile, house, and retirement.
Review (Week 35, 2 Weeks)					