



Gateway School District

Curriculum Map

High School (9-12)

Gateway High School
3000 Gateway Campus Blvd.
Monroeville, PA 15146
412-373-5744

Curriculum Map: Mathematics

Course: Consumer Math

Grade(s): 11/12

Unit 1: Computation, The calculator and Estimation

Brief Summary of Unit	
Stage One—Desired Results	
Established Goals: (Standards of Learning, Content Standards)	
<ol style="list-style-type: none">1. Add, subtract, multiply and divide whole numbers and decimals with and without a calculator2. Rename fractions, decimals and percents3. Find the percent of a number4. Solve problems by interpreting data in tables and bar graphs5. Find the mean, median and mode of a set of data6. Multiply and divide by 10,100, 1000, etc...mentally7. Estimate sums, differences, products and quotients of whole numbers, money amounts, mixed numbers and decimals8. Use estimation to approximate answers and determine reasonableness	
Understandings: <ol style="list-style-type: none">1. Understand the difference between mental computation and estimation2. Understand the advantages and disadvantages of rounding up and/or down when estimating certain sums3. Understand when and when not to use estimations	Essential Questions: <ol style="list-style-type: none">1. How does estimation help you model real-world situations?2. How can use the properties of real numbers to estimate?3. How do you estimate?
Stage Two—Assessment Evidence	
Performance Tasks:	
Other Evidence: :(quizzes, tests and so on)	

Stage Three—Learning Plan

Unit 2: Part-Time and Summer Jobs

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Compute total pay, given daily earnings.
2. Compare earnings.
3. Compute pay, given hours worked, and hourly wage or weekly pay.
4. Compute weekly pay, daily pay, and hourly wage, given a season rate.
5. Compute the amount of tips and total earnings from wages and tips.
6. Compute FICA contributions.
7. Decide, given relevant information which help-wanted ad to pursue.

Understandings:

1. **What information should be found out about a job and why.**
2. **What kinds of questions you might be asked during a job interview.**
3. **Why a camp counselor can usually earn more by working at a day camp than at a sleep-away camp.**
4. **The importance of hourly wage, food prices and the number of customers when choosing a restaurant job that involves tips.**
5. **In what type of situations you would need to give your Social Security number.**
6. **How Social Security can benefit young families.**

Essential Questions:

1. How does computing earnings help you model real-world situations?
2. How can use estimation of hourly wage?
3. How do you compute tips and total earnings from wages in evert day life?

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 3: Full-Time Work

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Compute regular and overtime pay given hours worked and hourly wage.
2. Complete time sheets and compute hours worked using the time sheets.
3. Compute weekly, monthly, semi-monthly or biweekly pay given annual salaries.
4. Compute annual salaries given weekly, monthly, semimonthly, or biweekly pay.
5. Compute piecework pays, given piece rates and the numbers of items produced.
6. Find the numbers of items that need to be produced, given piece rates and the pays desired.
7. Compute straight commissions and pay composed of salary plus commission.
8. Compute net pay, given gross pay and payroll deductions and annual payroll deductions
9. Compute insurer's and insured's share of medical bills and insured's share of medical costs.
10. Identify the difference between term and straight life insurance
11. Compute life-insurance premiums using rate tables

Understandings:

1. **Understand the concept of overtime pay and why the rate is higher than regular pay.**
2. **Understand why government sets a minimum wage and why this changes over the years.**
3. **Understand why hours worked is rounded down to the nearest quarter hour.**
4. **Understand the advantages of being paid biweekly instead of bimonthly.**
5. **Understand how a piecework system motivates workers and the advantages and disadvantages of the piecework system.**
6. **Understand why health-insurance plans have deductibles.**
7. **Understand why term insurance rates increase as you get older.**
8. **Understand why the premiums for straight life insurance are higher than term life insurance**

Essential Questions:

1. How does computing earnings help you model real-world situations?
2. How can use of time sheet and annual salaries?
3. How do you compute overtime pay from wages in evert day life?

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Compute the sale price of a discounted item, the discount rate and the marked-up price of an item.
2. Estimate and compute the cost of a purchase and the change from a purchase.
3. Compute the sales tax on a purchase and be able to use a table to find the sales tax on a purchase.
4. Complete a catalog purchase order form.
5. Determine whether a labeled price makes sense and use unit prices to determine the better buy.
6. Compute the total cost of a purchase when using coupons.
7. Use a menu to estimate the cost of a meal and compute the cost of meals, including tax and tip.

Understandings:

1. **How to determine which store offers the greater discount and the better buy?**
2. **When items are on sale, why you usually save more money on the more expensive items.**
3. **When estimating the cost of several items, why it is best to round each price up?**
4. **Why some people travel to other states or municipalities to do their shopping?**
5. **The advantages and disadvantages of catalog shopping and why you often pay more for an item when you purchase it through a catalog.**
6. **Why people sometimes buy items that are not on their shopping lists. What supermarkets do to encourage this type of buying?**

Essential Questions:

1. How does computing a discounting item help you model real-world situations?
2. How can use of sale tax?
3. How do you compute overtime pay from wages in evert day life.

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 5: Checking and Savings Accounts

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Write checks and compute balance in register.
2. Complete savings & checking account deposit slips, compute passbook.
3. Reconcile a bank statement balance with a check register balance.
4. Compute simple and compound interest

Understandings:

1. **Understand what it means to “bounce” a check and how to prevent it.**
2. **Understand why it is important to save your canceled checks.**
3. **Understand the difference between checking and savings accounts.**
4. **Understand why banks pay interest on Savings Accounts.**
5. **Understand what types of compounded accounts earn more per year**

Essential Questions:

1. How does computing a check book register to help you model real-world situations?
2. How can use of deposit slip?
3. How do you compute compound interest from daily life?

Stage Two—Assessment Evidence**Performance Tasks:****Other Evidence:** :(quizzes, tests and so on)**Stage Three—Learning Plan****Unit 6: Credit****Brief Summary of Unit****Stage One—Desired Results****Established Goals:** (Standards of Learning, Content Standards)

1. Read a credit card receipt and statement.
2. Compute an unpaid credit balance and identify the new charges.
3. Compute an overdraft checking finance charge (interest) and a new balance by using the daily interest rate and the sum of the daily balances.
4. Compute a credit finance charge using fixed or variable rates and compute a new credit balance.
5. Compute an installment price and the finance charge for an installment plan.

Understandings:

1. **How to check your credit card receipts against a credit card statement.**
2. **The advantages and disadvantages of having a credit card.**
3. **Why a down payment decreases the finance charge.**

Essential Questions:

1. How does computing an unpaid credit balance and identify the new charges to help you model real-world situations?
2. How do you compute credit finance charge using fixed or variable rates and compute a new credit balance.

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 7: Transportation

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Add, subtract, multiply and divide money amounts.
2. Find the percent of a number.
3. Solve proportions.
4. Find perimeter and area

Understandings:

1. **Understand that highway distance is usually more than air distance.**
2. **Understand the advantage of purchasing a monthly bus/train pass over individual passes.**
3. **Understand that there are different schedules depending on the day of the week you are traveling (week, weekend or holiday).**
4. **Understand all new and updated rules and regulations of air travel.**
5. **Understanding of what means of transportation are most efficient.**
6. **Understand the advantages and disadvantages of traveling using a taxi cab.**
7. **Understand the importance when budgeting and planning a trip and all the components involved (gas, meals, hotels, time)**

Essential Questions:

1. How does using a map help you model real-world situations?
2. How do you use a mileage chart to compute and estimate travel distances and times?

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 8: Housing

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Compute the maximum amount a person should be able to afford for rent.
2. Compute the monthly cost for rent for apartment and condominiums including utilities (including move-in costs).
3. Compute the maximum amount that a person should be able to spend on a house.
4. Compute the appreciated value of a house.
5. Use a monthly mortgage rate table to calculate monthly payments and closing costs.
6. Compute the assessed valuation, real estate tax and monthly mortgage payments to the bank.
7. Compute the coverage provided by homeowner's insurance policies.
8. Compute the cost of electricity, gas and water after reading a meter.

Understandings:

1. **Understand all of the costs when moving into an apartment and from one apartment to another.**
2. **Understand what factors make houses appreciate in value.**
3. **Understand why someone would choose to purchase a condominium over the purchase of a house.**
4. **Understand the advantages and disadvantages of an adjustable rate mortgage.**
5. **Understand why the tax rate in a town increases.**
6. **Understand the pros and cons of homeowners insurance.**

Essential Questions:

1. How to compute the monthly cost for rent including utilities to help you model real-world situations?
2. How do you use a monthly mortgage rate table to calculate monthly payments?

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 9: Trade Industries

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Estimate the costs of carpentry projects.
2. Compute board feet and the costs of lumber orders.
3. Compute the inside and outside diameter of pipes.
4. Compute the cost of plumbing supplies and labor charges.
5. Compute the quantities and costs of electrical supplies and labor charges.
6. Find the areas of walls and determine the amount of paint needed.
7. Compute the cost of paint and labor charges.
8. Compute the number of bricks and the amount of cement needed for a job and the cost of the bricks and cement.

Understandings:

1. **Understand why the cost of renovation work is often higher than the cost of new construction.**
2. **Understand the difference between 1 board foot and 1 linear foot of lumber.**
3. **Understand why doubling the pipe's diameter quadruples its capacity.**
4. **Understand why building codes require that electrical work be done by a licensed electrician.**
5. **Understand the purposes of fuses and circuit breakers.**
6. **Understand why a gallon of interior paint usually covers more than a gallon of exterior paint.**
7. **Understand why masons usually order more bricks than their computations indicate.**
8. **Understand why fireplaces are built with mostly cement blocks with bricks placed only on the visible parts.**

Essential Questions:

1. How to estimate the costs of carpentry projects to help you model real-world situations?
2. How compute the cost of plumbing supplies and labor charges?

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 10: Other Professions

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)	
<ol style="list-style-type: none"> 1. Compute the number of column-inches in a newspaper advertisement. 2. Find the costs of placing newspaper ads. 3. Draw and interpret line graphs and draw conclusions from data. 4. Convert dollar amounts to their equivalencies in other currencies and convert money amounts in other currencies to dollars. 5. Determine the number of manufactured items to be tested for quality control. 6. Predict the number of defective items on an assembly line. 7. Determine appropriate dosages for administering medication. 8. Schedule radio time and compute radio and television advertising income. 	
Understandings:	Essential Questions:
<ol style="list-style-type: none"> 1. Why the cost of a full-page ad is often so much greater in one newspaper than in another. 2. 3. Advantages of using a graph rather than a table with the same data. 4. 5. Why audience ratings are so important to radio and television stations. 	<ol style="list-style-type: none"> 1. How to draw and interpret line graphs and draw conclusions to help you model real-world situations? 2. How to compute the number of column-inches in a newspaper advertisement ?
Stage Two—Assessment Evidence	
Performance Tasks:	
Other Evidence: :(quizzes, tests and so on)	
Stage Three—Learning Plan	

Unit 11: **Personal Finance**

Brief Summary of Unit	
Stage One—Desired Results	
Established Goals: (Standards of Learning, Content Standards)	
<ol style="list-style-type: none"> 1. Compute the inflation rate. 2. Compute the purchasing power after inflation. 3. Identify fixed, living, and annual expenses and calculate the amount to budget for these expenses. 4. Analyze a monthly budget sheet. 5. Identify the long term costs of raising a family by computing the annual and total costs of raising a child. 6. Compute the annual and total costs of paying for a college education. 7. Identify assets and liabilities and use these to calculate net worth.. 	
Understandings:	Essential Questions:

<ol style="list-style-type: none"> 1. Understand how inflation can affect people with fixed incomes. 2. Understand the problems that might arise from budgeting only part of an annual expense each month. 3. Understand the difference between budgeting for a single person compared to a family. 4. Understand what changes need to take place if your monthly expenses are more than monthly income. 5. Understand how inflation affects the costs to raise a child and pay for college education. 6. Understand the difference between the net worth of a homeowner and a renter. 7. Understand that a person’s net worth is not a good indication of the amount he or she has available. 	<ol style="list-style-type: none"> 1. How to compute the inflation rate to help you model real-world situations? 2. How to compute the compute the purchasing power after inflation?
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Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan

Unit 12: Investments

Brief Summary of Unit

Stage One—Desired Results

Established Goals: (Standards of Learning, Content Standards)

1. Find the cost and redemption value of U.S. Savings Bonds.
2. Compute the interest earned on a savings bond.
3. Compute the interest earned and yield on a certificate of deposit.
4. Find the values of shares of mutual funds.
5. Compute the annual pension benefits..

Understandings:	Essential Questions:
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| <ol style="list-style-type: none"> 1. Understand who pays the interest on U.S. Savings Bonds. 2. Understand why savings bonds are considered to be “patriotic” investments. 3. Understand why CDs earn a higher interest than regular savings accounts. | <ol style="list-style-type: none"> 1. How to find the cost and redemption to help you model real-world situations? 2. How to compute the interest earned and yield on a certificate of deposit? |
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4. Understand the hesitation to purchase longer-term CDs.
5. Understand the advantages of investing in a mutual fund rather than buying individual stocks or bonds.
6. Understand why an employee's contribution to his/her pension represent only a small part of the eventual pension benefits.

Stage Two—Assessment Evidence

Performance Tasks:

Other Evidence: :(quizzes, tests and so on)

Stage Three—Learning Plan