



Wolcott Public Schools

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High School Curriculum Grade 12 Consumer Math



Children are our Future...

CONSUMER MATH – GRADE 12

Mission Statement:

The mission of the Wolcott Public Schools is to develop in each student the knowledge, skills, and attitudes necessary to become a productive member of the community and a contributing member of society.

Departmental Philosophy:

The philosophy of the Mathematics Department at Wolcott High School is that mathematics education should support the development of mathematical literacy in all students, prepare students for successful post-secondary endeavors, and motivate more students to pursue careers in mathematics, technology, and engineering. Students will be offered appropriately sequenced instruction which promotes the development of deep understanding of key mathematical concepts and skills, including the ability to compute, reason, communicate and solve problems. The department will set high expectations for all students to ensure earlier and more equitable opportunities to learn mathematics. Students will be actively involved with mathematics and will be required to use a variety of mathematical tools and strategies to solve problems using appropriate technology. All students will be proficient with the TI-83/84 graphing calculator where applicable, including but not limited to, evaluating expressions, graphing and using the statistic package.

Course Description:

Consumer Math is a course which extends the students' knowledge of Algebra I and Geometry to practical everyday applications. Students will be encouraged to use technology throughout the course.

Consumer Math – Grade 12

<i>Content Standards</i>	<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p>1.2 Represent and analyze quantitative relationships in a variety of ways.</p>	<p>a. Represent and analyze linear and non-linear functions and relations symbolically and with tables and graphs.</p>	<p>1. Identify an appropriate symbolic representation for a function or relation displayed graphically or verbally.</p> <p>2. Evaluate and interpret the graphs of functions.</p>	<p>1. Tests</p> <p>2. Quizzes</p> <p>3. Projects</p> <p>4. Homework</p> <p>5. Class Work</p> <p>6. Take Home Tests</p> <p>7. Journals</p> <p>8. Extra Credit Assignments</p> <p>9. Rubrics</p>	<p>1. Text</p> <p>2. Course Organizers</p> <p>3. State of CT Mathematics Curriculum Framework</p> <p>4. Graphing Calculators</p> <p>5. Cooperative Learning Groups</p> <p>6. Computer Lab</p> <p>7. PowerPoint Presentations</p> <p>8. Occupation Specific Resources (Guidance)</p> <p>9. Reading Specialist</p> <p>10. Guest Speakers</p> <p>11. Career Center</p>

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<i>Content Standards</i>	<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p>1.3 Use operations, properties and algebraic symbols to determine equivalence and solve problems.</p>	<p>a. Manipulate equations, inequalities, and functions to solve problems.</p>	<p>1. Model and solve problems with equations and inequalities.</p> <p>2. Determine equivalent representations of an algebraic equation or inequality to simplify and solve problems.</p>	<p>1. Tests</p> <p>2. Quizzes</p> <p>3. Projects</p> <p>4. Homework</p> <p>5. Class Work</p> <p>6. Take Home Tests</p> <p>7. Journals</p> <p>8. Extra Credit Assignments</p> <p>9. Rubrics</p>	<p>1. Text</p> <p>2. Course Organizers</p> <p>3. State of CT Mathematics Curriculum Framework</p> <p>4. Graphing Calculators</p> <p>5. Cooperative Learning Groups</p> <p>6. Computer Lab</p> <p>7. PowerPoint Presentations</p> <p>8. Occupation Specific Resources (Guidance)</p> <p>9. Reading Specialist</p> <p>10. Guest Speakers</p> <p>11. Career Center</p>

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<p>2.2 Use numbers and their properties to compute flexibly and fluently, and to reasonably estimate measures and quantities.</p>	<p>a. Develop strategies for computation and estimation using properties of number systems to solve problems.</p> <p>b. Solve proportional reasoning problems.</p>	<p>1. Select and use appropriate methods for computing to solve problems in a variety of contexts</p> <p>2. Develop and use a variety of strategies to estimate values of formulas and functions; to recognize the limitations of estimation; and to judge the implications of the results.</p> <p>1. Use dimensional analysis to determine equivalent rates.</p>	<p>1. Tests</p> <p>2. Quizzes</p> <p>3. Projects</p> <p>4. Homework</p> <p>5. Class Work</p> <p>6. Take Home Tests</p> <p>7. Journals</p> <p>8. Extra Credit Assignments</p> <p>9. Rubrics</p>	<p>1. Text</p> <p>2. Course Organizers</p> <p>3. State of CT Mathematics Curriculum Framework</p> <p>4. Graphing Calculators</p> <p>5. Cooperative Learning Groups</p> <p>6. Computer Lab</p> <p>7. PowerPoint Presentations</p> <p>8. Occupation Specific Resources (Guidance)</p> <p>9. Reading Specialist</p> <p>10. Guest Speakers</p> <p>11. Career Center</p>

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<i>Content Standards</i>	<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p>3.3 Develop and apply units, systems, formulas and appropriate tools to estimate and measure.</p>	<p>a. Solve a variety of problems involving one-two- and three- dimensional measurements using geometric relationships.</p>	<p>1. Select appropriate units, scales, degree of precision, and strategies to determine length, angle measure, perimeter, circumference and area of plane geometric figures.</p>	<p>1. Tests 2. Quizzes 3. Projects 4. Homework 5. Class Work 6. Take Home Tests 7. Journals 8. Extra Credit Assignments 9. Rubrics</p>	<p>1. Text 2. Course Organizers 3. State of CT Mathematics Curriculum Framework 4. Graphing Calculators 5. Cooperative Learning Groups 6. Computer Lab 7. PowerPoint Presentations 8. Occupation Specific Resources (Guidance) 9. Reading Specialist 10. Guest Speakers 11. Career Center</p>

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<i>Content Standards</i>	<i>Performance Standards</i>	<i>Sample Activities</i>	<i>Assessment Strategies</i>	<i>Resources</i>
<p>4.1 Collect, organize and display data using appropriate statistical and graphical methods.</p>	<p>a. Create the appropriate visual or graphical representation of real data.</p> <p>b. Model real data graphically using appropriate tools, technology and strategies.</p>	<p>1. Collect real data and create meaningful graphical representation of the data.</p> <p>1. Investigate and solve relevant problems by designing statistical experiments and collecting, organizing, displaying and analyzing data in tabular, graphical and symbolic forms.</p> <p>2. Recognize the limitations of mathematical models based on sample data as representations of real-world situations.</p>	<p>1. Tests</p> <p>2. Quizzes</p> <p>3. Projects</p> <p>4. Homework</p> <p>5. Class Work</p> <p>6. Take Home Tests</p> <p>7. Journals</p> <p>8. Extra Credit Assignments</p> <p>9. Rubrics</p>	<p>1. Text</p> <p>2. Course Organizers</p> <p>3. State of CT Mathematics Curriculum Framework</p> <p>4. Graphing Calculators</p> <p>5. Cooperative Learning Groups</p> <p>6. Computer Lab</p> <p>7. PowerPoint Presentations</p> <p>8. Occupation Specific Resources (Guidance)</p> <p>9. Reading Specialist</p> <p>10. Guest Speakers</p> <p>11. Career Center</p>

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Pacing Guide

September:

- **Basic Math Skills Workshops**
 - Adding and Subtracting Decimals
 - Fraction to Decimal; Decimal to Percent
 - Finding Percentage
 - Adding and Subtracting Negative Numbers
 - Reading Tables, Charts, and Graphs
 - Unit of Measure Conversions
- **Gross Income**
 - Straight-time Pay
 - Overtime Pay
 - Weekly Time Card
 - Piecework
 - Salary
 - Commission
 - Graduated Commission
- **Research and Pick Job**

October:

- **Net Income**
 - Federal Tax Income
 - State Income Tax
 - Graduated State Income Tax
 - Social Security and Medicare Tax
 - Group Health Insurance
 - Statement of Earning
- **Record Keeping**
 - Average Monthly Expenditures
 - Preparing a Budget Sheet
 - Using a Budget
- **Personal Budget Project**

Continued.....

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Pacing Guide

November:

- **Checking Accounts**
 - Deposits
 - Check-Writing Process
 - Check Registers
 - Bank Statements
 - Bank Statements Reconciliation
 - Online Banking
- **Savings Accounts**
 - Deposits
 - Withdrawals
 - Account Statements
 - Simple Interest
 - Compound Interest
 - Compound Interest Tables
 - Daily Compounding
 - Annuities

December:

- **Determining Which Bank is Right for you**
- **Cash Purchases**
 - Sales Tax
 - Total Purchase Price
 - Unit Pricing
 - Comparison Shopping
 - Coupons and Rebates
 - Markdown
 - Sales Price
- **Holidays on a Budget**

Continued.....

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Pacing Guide

January:

- **Charge Accounts and Credit Cards**
 - Account Statements
 - Finance Charge: Unpaid-Balance Method
 - Finance Charge: Average-Daily Balance Method
- **Loans**
 - Single Payment Loans
 - Installment Loans – Account Financed
 - Installment Loans – Monthly Payment & Finance Charge

February:

- **Loans**
 - Installment Loans – Monthly Payment Allocation
 - Paying Off Installment Loans
 - Determining the APR

March:

- **Vehicle Transportation**
 - Purchasing a New Vehicle
 - Dealer's Cost
 - Purchasing a Used Vehicle
 - Vehicle Insurance
 - Operating and Maintaining a Vehicle
 - Leasing a Vehicle
 - Renting a Vehicle

April:

- **Preparing Your Taxes**
 - Filling out a 1040EZ Tax Form
 - Resources Available to Help People File Taxes
- **Public Service Billboards on Filing Taxes**

Continued.....

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Pacing Guide

May:

- **Housing Costs**
 - Mortgage Loans
 - Monthly Payment and Total Interest
 - Closing Costs
 - Allocation of the Monthly Payment
 - Real Estate Taxes
 - Homeowners Insurance
 - Homeowners Insurance Premium
 - Other Housing Costs
 - Renting or Owning a Home
- **Insurance**
 - Health Insurance Premiums
 - Health Insurance Benefits
 - Term Life Insurance
 - Other Types of Insurance

June:

- **Decorating your House**
 - House Sizing (will your furniture fit)
 - Painting a House (determining area to be painted)
 - Estimating the cost of remodeling your rooms.
 - Create a 3-D scale model of a decorated room in your new house
 - Determining Total Volume of Storage Space

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Essential Questions

1. What is a Budget? How does it help me and how do I create one?
2. Why do I want to buy a home? Why not rent?
3. Where do I go for information (to buy a car/house, to fill out forms, to find the right bank, etc.)?
4. How do I “balance” a checkbook?
5. Why do I even need a credit card?
6. What effect does a credit card have on my financial situation?
7. How do I identify and complete tax forms?
8. How do I select the right insurance (for home, car, health)?
9. What are the effects of coupons and markdowns?
10. How can I calculate the sale price from the percentage off?
11. How do I apply area, perimeter, and volume in the real world?

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Skills Objectives

Students will be able to:

1. Create a budget for themselves based on their predicted (job choice) economic standing.
2. Develop consumer purchasing strategies.
3. Correctly use a checking account.
4. Correctly use a savings account.
5. Identify advantages and disadvantages of using credit.
6. Fill out personal tax forms.
7. Identify the advantages and disadvantages of being on different systems of remuneration.
8. Determine the best buy when shopping for lifestyle needs.

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Assessments

[That are aligned to the curriculum – this will be done through the data teams throughout the year – no need to do them now, I just wanted to let you know where they will go in the curriculum, as we complete them.
Thank.]