

**Wallenpaupack Area School District
Planned Course Curriculum Guide**

Department

Math

Name of Course

CTE Consumer Math

Course Description:

Consumer Math CTE uses practical application of mathematical principles to understand and manage finances in both personal and business settings.

Initial Creation Date (if applicable) and Revision Dates:

May 2025

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 2: Net Income	TIMEFRAME: 1-2 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS: Math 2.1.HS.F.2 2.1.HS.F.3</p>
<p>UNIT OBJECTIVES (SWBATS): Students will be able to take their gross pay and make necessary deductions to calculate their net pay.</p>
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES: Teacher generated worksheets Look at US federal tax rates Look at average medical costs in United States</p>
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative): Quiz/Test Homework Class participation Teacher observations</p>
<p>DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment): Create an Excel spreadsheet that calculates deductions when given parameters. Take a personal pay check and check the calculations for SS, Medicare, FIT, and state and local taxes.</p>
<p>RESOURCES (Technology Based Resources, Text Resources, etc.): Schoology pages on FIT tables, medical costs and Social Security.</p>
<p>KEY VOCABULARY: Federal Income Tax (FIT) Social Security Medicare Health Insurance Gross pay Net pay</p>

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 13: Personnel	TIMEFRAME: 2 weeks

<p>PA COMMON CORE/NATIONAL STANDARDS:</p> <p>Math 2.1.HS.F.2 2.1.HS.F.3</p> <p>English 1.5.11-12.G</p> <p>Career Education and Work 13.2.9-12.B 13.3.9-12.C 13.4.9-12.A</p>
<p>UNIT OBJECTIVES (SWBATS):</p> <p>Students will be able to calculate salaries using various methods (salary table, COL increase, etc.) Students will be able to calculate worker’s compensation costs. Students will be able to calculate unemployment insurance costs. Students will be able to interview a prospective employee with appropriate questions.</p>
<p>INSTRUCTIONAL STRATEGIES/ACTIVITIES:</p> <p>Teacher generated worksheets Create questions and then hold an interview for a position in their company. Discuss the many employee benefits and their importance to each individual.</p>
<p>ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):</p> <p>Create interview questions and conduct an interview Quiz Test Homework Class Participation Teacher observation</p>
<p>DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):</p> <p>Student will contact local businesses to see what benefits they offer their workers and report findings to class. Students will make a list of hazards in their field that could affect the Workers Comp rates of their potential business.</p>
<p>RESOURCES (Technology Based Resources, Text Resources, etc.):</p> <p>Schoology pages on Hiring Costs, Inflation facts, Employee benefits, Workers Comp Class Codes for PA.</p>

KEY VOCABULARY:

COL (cost of living)

Merit pay

Inflation

Worker's Compensation

Unemployment Insurance

Percent of Benefits

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 14: Production	TIMEFRAME: 2-3 weeks

PA COMMON CORE/NATIONAL STANDARDS:
 Math
 2.1.HS.F.2
 2.1.HS.F.3
 2.2.HS.D.3
 2.2.HS.D.8
 2.2.HS.D.9
 2.2.HS.D.10
 2.2.HS.C.5
 2.2.HS.C.6

UNIT OBJECTIVES (SWBATS):
 Students will be able to calculate a prime cost of an item.
 Students will be able to calculate a break even point and a profit by comparing revenue and costs.
 Students will be able to calculate the percent defective in a given time period.
 Students will be able explain the usefulness of a time study, and how to calculate percent of time.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
 Teacher generated worksheets
 Review of steps to solving equations in 1 variable (for break even point)
 Students will calculate the costs of products with different pricing to determine which is cheaper at different usage points.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
 Test
 Quiz
 Homework
 Class Participation
 Teacher Observation

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):
 Students will do a time study of a task in their shop and present it to the class.
 Research a defect in the field that you are in that impacted the company producing that product.

RESOURCES (Technology Based Resources, Text Resources, etc.):
 Graphing Calculator used to find break even point using graphing method.
 Schoology page of formulas.

KEY VOCABULARY:
 Prime Cost
 Revenue

Break-even point
Percent Defective
Time study

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 15: Purchasing	TIMEFRAME: 1-2 weeks

PA COMMON CORE/NATIONAL STANDARDS:
 Math
 2.1.HS.F.2
 2.1.HS.F.3
 2.2.HS.D.8

UNIT OBJECTIVES (SWBATS):
 Students will be able to calculate for missing amounts of List price, Trade Discount, trade discount rate, and Net price.
 Students will be able to calculate a chain of discounts.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
 Teacher generated worksheets
 Spread sheets with 2 of the 4 items filled in.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
 Test
 Quiz
 Homework
 Class Participation
 Teacher observations

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):
 Students will find a local employer in their field, and ask about the trade discounts that they receive.

RESOURCES (Technology Based Resources, Text Resources, etc.):
 Schoology page of formulas.

KEY VOCABULARY:
 Trade Discount
 Trade Discount Rate
 Chain Discount
 Complementary Rate

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 16: Sales	TIMEFRAME: 1-2 weeks

PA COMMON CORE/NATIONAL STANDARDS:	
Math 2.1.HS.F.2 2.1.HS.F.3 2.2.HS.D.8	
UNIT OBJECTIVES (SWBATS): Students will be able to find missing amounts of markup, markup rate, list price, and net profit.	
INSTRUCTIONAL STRATEGIES/ACTIVITIES: Teacher generated worksheets Spread sheets with various columns filled in.	
ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative): Create a Logo for business Test Quiz Homework Class participation Teacher observation	
DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment): Students will use the internet to research the markup rates of various products that we buy on a regular basis.	
RESOURCES (Technology Based Resources, Text Resources, etc.): Schoology page of formulas, review of algebra (proportions)	
KEY VOCABULARY: Markup Markup Rate	

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 17: Marketing	TIMEFRAME: 2-3 weeks

PA COMMON CORE/NATIONAL STANDARDS:
 Math
 2.1.HS.F.2
 2.1.HS.F.3
 2.2.HS.D.7
 2.2.HS.C.5
 2.2.HS.C.6
 2.4.HS.B.3
 2.4.HS.B.5

UNIT OBJECTIVES (SWBATS):
 Students will be able to use data from an opinion survey and calculate questions based on that survey.
 Students will use a sample to calculate sales potential in a given population.
 Students will be able to project sales using a line of best fit both by hand and using a graphing calculator..
 Students will understand and be able to explain the pros and cons of various types of advertising.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
 Teacher generated worksheets
 Graph sales projections.

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
 Create an opinion survey for their company.
 Create an advertisement for their company.
 Create a line of best fit by hand using graph paper and ruler.
 Test
 Quiz
 Homework
 Class Participation
 Teacher Observation

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):
 Look at sales projections that are not linear.
 Create an opinion survey for a local business in your field.
 Research local advertising costs for TV, newspaper, radio or billboard

RESOURCES (Technology Based Resources, Text Resources, etc.):
 Schoology pages on Opinion Survey types, Advertising
 Graphing calculator to do line of best fit

KEY VOCABULARY:
 Opinion Survey

Sample
Population
Line of best fit
Market Share
Proportion

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT 18-20: Buildings and Equipment	TIMEFRAME: 1-2 weeks

PA COMMON CORE/NATIONAL STANDARDS:
 Math
 2.1.HS.F.2
 2.1.HS.F.3
 2.1.HS.F.4
 2.2.HS.C.6
 2.3.HS.A.12
 2.3.HS.A.14

UNIT OBJECTIVES (SWBATS):
 Students will be able to calculate storage space using volume.
 Students will be able to calculate the area of a shape and use that to calculate building rental costs.
 Students will be able to calculate straight line depreciation.

INSTRUCTIONAL STRATEGIES/ACTIVITIES:
 Teacher generated worksheets
 Find area and volume of various figures

ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):
 Test
 Quiz
 Packet of area/volume problems relating to specific shop.
 Homework
 Class Participation
 Teacher Observation

DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):
 Find area and volume of shapes that need to be divided into smaller ones, or ones that need to be subtracted from the bigger ones.

RESOURCES (Technology Based Resources, Text Resources, etc.):
 Schoology page of formulas for area and volume.

KEY VOCABULARY:
 Area
 Volume
 Building Rental costs
 Storage Space
 Depreciation

Wallenpaupack Area School District Curriculum	
COURSE: CTE Consumer Math	GRADE/S: 12
UNIT: Senior Project	TIMEFRAME: 2 additional weeks

PA COMMON CORE/NATIONAL STANDARDS:	
Math 2.1.HS.F.2 2.1.HS.F.3	
English 1.5.11-12.G	
Career Education and Work 13.1.9-12.A 13.2.9-12.B 13.3.9-12.C 13.4.9-12.D	
UNIT OBJECTIVES (SWBATS):	
Students will be able to calculate the cost of buying/renting space to run their business. Students will be able to calculate the costs of equipment to run their business. Students will be able to calculate the cost of employees and their benefits to run their business. Students will create financial goals for their future. Students will map out their future educational plans.	
INSTRUCTIONAL STRATEGIES/ACTIVITIES:	
Present students with a mortgage calculator as well as current rates.	
ASSESSMENTS (Diagnostic/Benchmark/Formative/Summative):	
Presentation of Senior Project Calculations within their senior project	
DIFFERENTIATED INSTRUCTION (Acceleration/Enrichment):	
Create a website and link all of the created items in the senior project to the website.	
RESOURCES (Technology Based Resources, Text Resources, etc.):	
Mortgage Calculator website Health insurance website	
KEY VOCABULARY:	
Mortgage Calculator Equipment associated with their field.	