

Career Math

Mathematics

Grade(s) 11th - 12th, Duration 1 Year, 1 Credit
Elective Course

Course Overview

In Career Math, students study and review arithmetic skills they can apply in their personal lives and in their future careers. The course focuses on occupational topics; it includes details on jobs, wages, deductions, taxes, insurance, recreation and spending, travel, and transportation. In addition, students learn about personal finances, banking, loans, credit cards, and buying a home and car.

Scope And Sequence

Timeframe	Unit	Instructional Topics
5 Week(s)	Wages	1. Wages 2. Time Worked 3. Other Kinds of Payments 4. Annual Income 5. Commissions
5 Week(s)	Benefits & Insurance	1. Types of Insurance 2. Health Benefits 3. Insurance Benefits 4. Casualty and Auto Insurance 5. Cost of Insurance 6. Life Insurance 7. Insurance Benefits 8. Insurance Benefits
5 Week(s)	Kinds of Businesses	1. Manufacturing 2. Sales 3. Retail 4. Service 5. Nonprofit Businesses 6. Sales Receipts 7. Unit Prices
3 Week(s)	Human Resources Department	1. Staffing 2. Hiring 3. Employee Performance 4. Labor Issues
5 Week(s)	Taxes	1. Social Security taxes 2. Medicare Taxes 3. State taxes 4. Tax forms and w2's
6 Week(s)	Interest	1. Compound Interest 2. Simple Interest
5 Week(s)	Stock Market	1. Stock market vocab 2. Stock market navigation

Course Details

Unit: Wages

Duration: 5 Week(s)

Unit Description

Determine earning based on different payment types.
Find the number of hours worked, including overtime hours.
Calculate annual income.
Determine the number of pay period in a year.
Calculate the amount earned during a pay period.
Understand the difference between gross pay and net pay.

Academic Vocabulary

hourly rate
wage
annual wage
living wage
deductions gross pay
take-home pay/net pay
a.m.
p.m.
time card
double time

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overtime
time and a half
tip
percentage
piecework
minimum wage
annually
bimonthly
biweekly
quarterly
salary
semimonthly
commission
rate of commission
bonus

Summative Assessment

chapter review and chapter test, pages 30-31

Materials and Resources (optional)

Math for the World of Work, 2002 AGS American Guidance Service

Topic: Wages

Duration: 2 Day(s)

Topic Description (short)

Calculate weekly wages and annual wages. Find net pay.

Learning Targets

The student will calculate weekly wages and annual wages.

The student will calculate net pay.

Learning Targets linked to Priority Standard = +

Topic: Time Worked

Duration: 2 Day(s)

Topic Description (short)

Calculate time worked, including regular and overtime hours. Find time and a half and double time pay rates. Calculate annual earnings.

Learning Targets

The student will calculate time worked, including regular and overtime hours.

The student will calculate time and a half and double time wages.

Learning Targets linked to Priority Standard = +

Topic: Other Kinds of Payments

Duration: 2 Day(s)

Topic Description (short)

Determine total income earned from regular wages and tips combined. Calculate wages based on a piecework rate.

Learning Targets

The student will determine total income earned from regular wages and tips combined.

The student will calculate wages based on a piecework rate.

Learning Targets linked to Priority Standard = +

Topic: Annual Income

Duration: 2 Day(s)

Topic Description (short)

Calculate annual income using minimum wage. Find the number of times per year a worker is paid. Calculate income earned during a pay period.

Learning Targets

The student will calculate annual income using hourly wages.

The student will find the number of times per year a worker is paid.

The student will calculate income earned during a pay period.

Learning Targets linked to Priority Standard = +

Topic: Commissions

Duration: 2 Day(s)

Topic Description (short)

Calculate the commission earned on sales. Analyze the relationship between commission rate and sales amount. Calculate total earnings from salary plus commission. Forecast the total sales needed to earn a specific income from commissions. Define and compute bonuses.


Learning Targets

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The student will calculate the commission earned on sales.
The student will analyze the relationship between commission rate and sales amount.
The student will calculate total earnings from salary plus commission.
The student will forecast the total sales needed to earn a specific income from commissions.
The student will define and compute bonuses.

Learning Targets linked to Priority Standard = 

Unit: Benefits & Insurance

Duration: 5 Week(s)

Unit Description

Understand life, auto, health, and home insurance and calculate benefits.

Academic Vocabulary

benefit
co-payment
coverage
insured
premium
deductible
out-of-pocket expense
beneficiary
life insurance
life expectancy table
casualty insurance
liability insurance
bodily injury
collision
comprehensive
medical
property damage
rider

Summative Assessment

chapter review and chapter test, page 50-51

Materials and Resources (optional)

Math for the World of Work, 2002 AGS American Guidance Service

Topic: Types of Insurance

Duration: 2 Day(s)

Topic Description (short)

Discuss the different types of insurance and terminology.

Topic: Health Benefits

Duration: 4 Day(s)

Topic Description (short)

Compute the employee's, employer's, and insurance company's costs for health insurance and medical claims.

Topic: Insurance Benefits

Duration: 2 Day(s)

Topic Description (short)

Understand the terms life insurance and beneficiary as they apply to employment benefits. Use a life expectancy table to make predictions.

Topic: Casualty and Auto Insurance

Duration: 2 Day(s)

Topic Description (short)

Identify types of insurance that businesses need and the relative costs of each type. Define five types of auto insurance and compute annual insurance premiums.

Topic: Cost of Insurance

Duration: 2 Day(s)

Topic Description (short)

Compute premiums for fire/theft and auto insurance. Define a policy rider.

Topic: Life Insurance

Duration: 2 Day(s)

Topic Description (short)

Calculate life insurance premiums.

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Topic: Insurance Benefits

Duration: 2 Day(s)

Topic Description (short)

Understand the terms life insurance and beneficiary as they apply to employments benefits. Use a life expectancy table to make predictions.

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Duration: 2 Day(s)

Topic Description (short)

Understand the terms life insurance and beneficiary as they apply to employments benefits. Use a life expectancy table to make predictions.

Unit: Kinds of Businesses

Duration: 5 Week(s)

Unit Description

Calculate a production schedule and determine the quantity of goods to produce. Calculate sales needed to meet revenue goals. Understand the relationship between price reductions and profits. Determine the staffing needs of retail businesses. Determine the amount of equipment and number of employees needed to meet customer expectations. Calculate operating expenses and analyze fund-raising campaign for nonprofit organizations.

Academic Vocabulary

production schedule
in stock
revenue
discount
peak hour
retail store
inventory
service business
budget
donation
nonprofit business

Summative Assessment

Chapter review and chapter test, pages 74-75

Materials and Resources (optional)

Math for the World of Work, 2002 AGS

Topic: Manufacturing

Duration: 2 Day(s)

Topic Description (short)

Develop a production schedule. Calculate the quantity of goods to produce to meet production goals.

Topic: Sales

Duration: 2 Day(s)

Topic Description (short)

Calculate sales needed to meet revenue goals. Calculate discounts and understand how they diminish profits.

Topic: Retail

Duration: 2 Day(s)

Topic Description (short)

Compute staffing needs. Determine how selling discounted items can help manage inventory and still allow a business to make a profit.

Topic: Service

Duration: 2 Day(s)

Topic Description (short)

Calculate the amount of supplies and number of employees needed by a cleaning business.

Topic: Nonprofit Businesses

Duration: 2 Day(s)

Topic Description (short)

Calculate a budgeted expense based on its percent of an annual budget. Analyze the results of fund-raising campaigns.

Topic: Sales Receipts

Duration: 2 Day(s)

Topic Description (short)

Calculate sales slip totals.

Topic: Unit Prices

Duration: 2 Day(s)

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Topic Description (short)

Calculate and compare unit prices. Calculate unit prices from group prices.

Unit: Human Resources Department

Duration: 3 Week(s)

Unit Description

Determine staffing needs in different situations.
Compare unemployment figures for different parts of the country
Calculate staff turnover in large corporation
Calculate raises base on employee performance
Understand the relationships between poverty level and number of dependent, and inflation and cost of living increases.
Compare the costs of training and education with income potential.
Graph median incomes for various occupations.

Academic Vocabulary

staff
sales force
territory
labor force
unemployed
unemployment rate
turnover
raise
semiannually
dependent
poverty level
cost of living increase
labor union
inflation

Summative Assessment

chapter review and chapter test, pages 96-97

Materials and Resources (optional)

Math for the World of Work, 2002 AGS

Topic: Staffing

Duration: 2 Day(s)

Topic Description (short)

Determine staffing needs to meet production goals. Calculate the number of people needed to support a company sales force.

Topic: Hiring

Duration: 2 Day(s)

Topic Description (short)

Compare unemployment figures for different parts of the country. Calculate staff turnover.

Topic: Employee Performance

Duration: 2 Day(s)

Topic Description (short)

Calculate raises based on employee performance.

Topic: Labor Issues

Duration: 2 Day(s)

Topic Description (short)

Identify income that is above or below poverty level. Describe inflation and calculate cost of living increases. Compare costs of training and education with potential for increased income.

Unit: Taxes

Duration: 5 Week(s)

Unit Description

Learning about taxes and practice filing tax forms. Understanding basic tax vocab.

Topic: Social Security taxes

Duration: 1 Week(s)

Topic Description (short)

Learn about social security tax and how they are taken out and used.

Learning Targets

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Understand Social security tax and how it's used by the government.

Learning Targets

Learn how taxes are used by the government

Learning Targets linked to Priority Standard = 

Topic: Medicare Taxes

Duration: 1 Week(s)


Topic Description (short)

Learn about Medicare taxes, how they are calculated and used by the government.

Learning Targets

Explain the purpose of standard deductions such as income taxes, social security (FICA), Medicare, deductions for health care and retirement savings plans.

Explain the purpose of standard deductions such as income taxes, social security (FICA), Medicare, deductions for health care and retirement savings plans.

Learning Targets linked to Priority Standard = 

Topic: State taxes


Duration: 1 Week(s)

Topic Description (short)

Learn about how state taxes are calculated and used by the state.

Learning Targets

Explain the purpose of standard deductions such as income taxes, social security (FICA), Medicare, deductions for health care and retirement savings plans.

Learning Targets linked to Priority Standard = 

Topic: Tax forms and w2's

Duration: 1 Week(s)


Topic Description (short)

Learn about common tax forms and what they are used for.

Learning Targets

Learn how to fill out tax forms and what tax forms are used for what part of filing taxes

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Learning Targets linked to Priority Standard = 

Unit: Interest

Duration: 6 Week(s)

Unit Description

Simple and compound interest. Comparing types of bank loans.

Topic: Compound Interest


Duration: 3 Week(s)

Topic Description (short)

Learn about how to calculate compound interest and what kinds of loans use compound interest.

Learning Targets

Calculate total interest on loans

Learning Targets linked to Priority Standard = 

Topic: Simple Interest


Duration: 3 Week(s)

Topic Description (short)

Learn how to calculate simple interest and what kinds of loans use simple interest

Learning Targets

calculate simple and compound interest on different types of bank loans

Learning Targets linked to Priority Standard = 

Unit: Stock Market

Duration: 5 Week(s)

Unit Description

Learning about and navigating the stock market.

Topic: Stock market vocab

Duration: 1 Week(s)

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Topic Description (short)

Learn common vocab for the stock market

Learning Targets

Learn vocab of the stock market world

Learning Targets linked to Priority Standard = 

Topic: Stock market navigation

Duration: Ongoing

Topic Description (short)

Learn how to navigate the stock market, look for trends, and how to use the stock market to earn money

Learning Targets

Learn what stocks are doing well and what stocks are doing poorly

"Purchase" stocks and track them over several weeks to see trends and if we can make any money

Learning Targets linked to Priority Standard = 