

WAMC Lab Template

Math Concept(s): Calculating Weekly, bi-Weekly, semi-Monthly paychecks: 5-2

Source / Text: Financial Algebra

Developed by: Ryan Alexander E-Mail: alexander.ryan@yakimaschools.org Date: Summer Conference 2017

Attach the following documents:

- Lab Instructions: The students will use pseudo paystubs to calculate the following percentages of their hourly wage. Gross and net pay, including deductions of income tax, social security, dental, retirement, and other dues.
- Student Handout(s): Paystubs
- Rubric and/or Assessment Tool: points total calculations.

Short Description (Be sure to include where in your instruction this lab takes place):

Lab Plan

Lab Title: What's left after Uncle Sam gets his share?

Prerequisite skills: Percentage computations, computer research for housing, tax bracketing, understanding of Bi-Weekly, Semi-Monthly, Weekly and Monthly calculations.

Lab objective: Students will learn how to calculate their take home pay after all of the deductions. They will better understand their need for certain financial needs with their wages and life desires.

Standards: (Note SPECIFIC relationship to Science, Technology, and/or Engineering)

Mathematics K–12 Learning Standards:

- CCSS-M: Understanding and using equations
- Calculating percentages
- Building a function that models a relationship between the two quantities

Standards for Mathematical Practice:

- Attention to precision
- Use tools appropriately
- Make sense of problems and persevere to solve them

K-12 Learning Standards-ELA (Reading, Writing, Speaking & Listening):

- Oral and written explanation of results

K-12 Science Standards

-

Technology

- Computers for research
- Calculators for mathematical calculations

Engineering

-

Leadership/21st Century Skills:

21st Century Interdisciplinary themes (Check those that apply to the above activity.)

- Global Awareness
 Financial/Economic/Business/Entrepreneurial Literacy
 Civic Literacy
 Health/Safety Literacy
 Environmental Literacy

21st Century Skills (Check those that students will demonstrate in the above activity.)

LEARNING AND INNOVATION

Creativity and Innovation

- Think Creatively
 Work Creatively with Others
 Implement Innovations

Critical Thinking and Problem Solving

- Reason Effectively
 Use Systems Thinking
 Make Judgments and Decisions
 Solve Problems

Communication and Collaboration

- Communicate Clearly
 Collaborate with Others

INFORMATION, MEDIA & TECHNOLOGY SKILLS

Information Literacy

- Access and Evaluate Information
 Use and manage Information

Media Literacy

- Analyze Media
 Create Media Products

Information, Communications and Technology (ICT Literacy)

- Apply Technology Effectively

LIFE & CAREER SKILLS

Flexibility and Adaptability

- Adapt to Change

- Be Flexible

Initiative and Self-Direction

- Manage Goals and Time

- Work Independently

- Be Self-Directed Learners

Social and Cross-Cultural

- Interact Effectively with Others

- Work Effectively in Diverse Teams

Productivity and

Accountability

- Manage Projects

- Produce Results

Leadership and

Responsibility

- Guide and Lead Others

- Be Responsible to Others

Applied Math Council

<https://wa-appliedmath.org/>

Teacher Preparation: (What materials and set-up are required for this lab?)

Materials

- Calculator
- Computer
- Monthly paystub - XXXXX out name

Set-Up Required:

- Basic pre education of learned skills
- Turn on computers and calculators
- Pass out paystubs

Lab Organization Strategies:

Leadership (Connect to 21st Century Skills selected):

- Work alone, help neighbors who are struggling
- Research several interested careers and show difference of living styles

Cooperative Learning:

- Using their payments to confer with other students about their calculations about cost of living.

Expectations:

Students will produce the correct percentages of their hourly wage which is taken in the form of taxes and expenses from their gross pay to account for net pay

Timeline:

- One class period for lab. About 50 minutes.

Post Lab Follow-Up/Conclusions:

Discuss real world application of learning from lab

- Helping to create a monthly/weekly/annual budget depending on pay period and schedule.

Career Applications

- Research average annual pay per chosen careers.

Optional or Extension Activities

- Include more monthly expenses. Phones, school, kids, etc.

<https://wa-appliedmath.org/>

Lab Problems:

1. Your annual income is \$45,000. Calculate your gross income for paychecks for the following pay periods:

- a. Monthly
- b. Semi-Monthly
- c. Bi-Weekly
- d. Weekly

2. Deduct from your checks above, the following taxes:

- a. 15% for F.I.C.A.
- b. 3% for Social Security
- c. 5% for L&I deductions
- d. 5% for insurance

3. What is your net pay for a month for each of the 4 different pay periods?

<https://wa-appliedmath.org/>

Washington Applied Math Council

<https://wa-appliedmath.org/>