

WAMC Lab Template

Math Concept(s):

Source / Text: NGPF and Personal

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Attach the following documents:

- Lab Instructions-you will be creating a monthly expense budget.
- Student Handout(s)
 - List of Expenses a student may have
 - Students will select a job from a list
 - Assessment Tool(The Lab and questions about their findings)

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

Lab Plan

Lab Title: Creating a Living Expense Budget

Prerequisite skills: Basic Excel Skills and Inserting a Chart

Lab objective:

The objective of this lab is to get students thinking about the importance of paying attention in what they spend their money and keeping track of it to be able to pay their bills.

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

Mathematics K–12 Learning Standards:

- A-REI.1, and A-REI2 Understand solving equations as a process of reasoning and explain the reasoning.

Standards for Mathematical Practice:

- 1. Make sense of problems and persevere in solving them.
- 4. Model with mathematics

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

- Speaking and listening. Comprehension and Collaboration.
- B. Work with peers to set rules for discussions and decision making.
- C. Propel conversation by posing and responding to questions that relate to the current information.

K-12 Science Standards

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Technology

- 5. Computational Thinker. Students develop and employ strategies for understanding problems in ways that leverage the power of technology.
- 5b. Students collect data or identify relevant data sets. Use digital tools to analyze them and represent data in various ways to facilitate problem solving and decision making.

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

Lab Organization Strategies:

Leadership (Connect to 21st Century Skills selected):

Cooperative Learning:

- For this purpose, students will draw from a list of jobs provided by teacher. They will search for an apartment to rent on their own or with a roommate.
- See List of Jobs and Expenses below.
- Students (individually or with partner).

Expectations:

- Students will be researching costs for apartments
- Students will be provided with this Budget Template that they can modify for their needs.

Timeline:

- 2 class times

Post Lab Follow-Up/Conclusions:

Discuss real world application of learning from lab

Optional or Extension Activities

Students will be provided with a list of expenses that they will chose to have besides their Needs.

Below is Budget Example in a list format and they will be provided with an Excel template with formulas.

See Below.

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

Summer Budget			
	Income	Expenses	
Part-Time Job -Working 20 hours a week			
Baby Sitting			
Total Income			
Transportation			
Public and Personal			
Entertainment			
Movie			
Concert			
Streaming , Netflix, etc. for each			
Recreation			
Outdoor activities (parks, beach, etc.)			
Gum			
Food			
Groceries			
Eating Out			
Personal Expenses			
Clothing			
Personal Care			
Miscellaneous			
Total Monthly Expenses			
Total Income			
Minus Expenses			
Saving			

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

Jobs to choose from:

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1. Retail Sales Associate - Monthly Salary: \$1,800-\$2,200
 2. Food Service Worker - Monthly Salary: \$1,600-\$2,000
 3. Receptionist - Monthly Salary: \$1,800-\$2,400
 4. Delivery Driver - Monthly Salary: \$1,700-\$2,300
 5. Customer Service Representative - Monthly Salary: \$1,800-\$2,500
 6. Tutor - Monthly Salary: \$1,500-\$2,000
 7. Babysitter/Nanny - Monthly Salary: \$1,500-\$2,200
 8. Landscaping Assistant - Monthly Salary: \$1,600-\$2,200
 9. Pet Sitter/Dog Walker - Monthly Salary: \$1,400-\$1,800
 10. Intern - Monthly Salary: Varies (unpaid or stipend-based)
 11. Warehouse Worker - Monthly Salary: \$1,600-\$2,200
 12. Lifeguard - Monthly Salary: \$1,600-\$2,200
 13. Office Assistant - Monthly Salary: \$1,700-\$2,300
 14. Library Assistant - Monthly Salary: \$1,600-\$2,000
 15. Event Staff - Monthly Salary: \$1,600-\$2,200

16. Rent/Mortgage: \$1,500
17. Utilities (electricity, water, gas): \$200
18. Internet and Cable TV: \$100
19. Phone and Mobile Plan: \$80

20. Groceries: \$400
21. Dining Out/Eating Outside: \$200
22. Transportation (fuel, public transport): \$200
23. Car Insurance: \$100
24. Health Insurance: \$300
25. Life Insurance: \$50
26. Home Insurance/Renter's Insurance: \$50
27. Debt Payments (credit cards, loans): \$300
28. Savings: \$200
29. Entertainment (movies, concerts, hobbies): \$100
30. Miscellaneous Expenses (personal care, household supplies): \$150

Student example:

1. Part-time job: \$600/month (working 20 hours/week at \$10/hour)
2. Babysitting: \$200/month

Total income: \$800/month

Expenses:

1. Transportation:

- Public transportation pass: \$50/month
- Fuel for personal transportation (if applicable): \$50/month

2. Entertainment:

- Movie tickets: \$40/month
- Concert tickets: \$60 (one-time expense)
- Streaming subscriptions (Netflix, Spotify, etc.): \$30/month

3. Recreation:

- Outdoor activities (parks, beach, etc.): \$20/month
- Gym membership or fitness classes: \$50/month

4. Food:

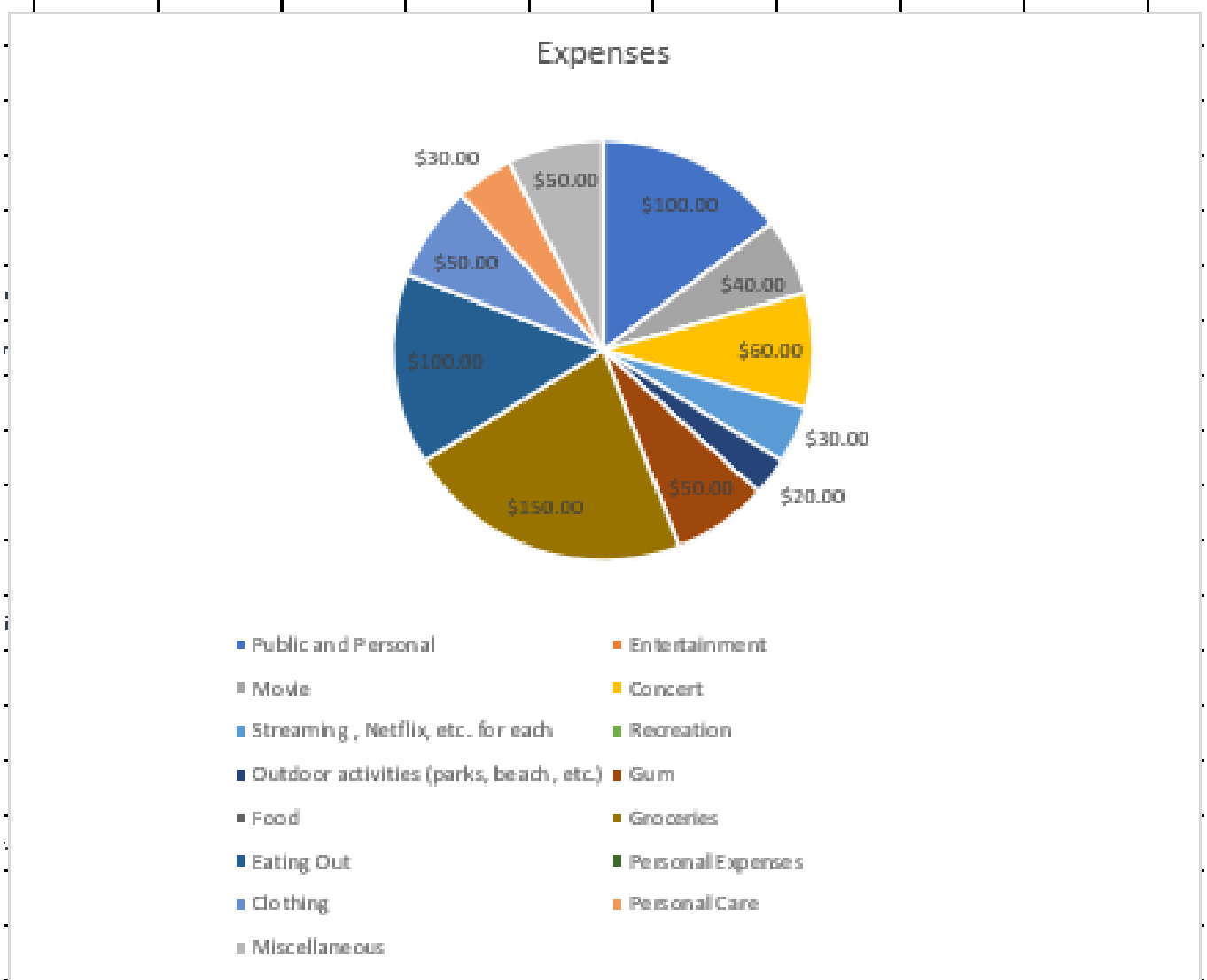
- Groceries: \$150/month
- Eating out with friends: \$100/month

5. Personal Expenses:

- Clothing: \$50/month
- Personal care products: \$30/month
- Miscellaneous: \$50/month

Total expenses: \$680/month

Applied



Questions for students:

1. What is the percentage of your income that you are saving?
2. If you have allocated 20% of your monthly income towards transportation expenses and your income is \$3,000, how much money have you set aside for transportation each month?
3. If you have budgeted \$200 for entertainment expenses each month and you have already spent \$150, how much money do you have to spend on entertainment.

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