

Lab Framework

Text: CORD

Unit number and title: Unit 1 – Learning Problem-solving Techniques

Short Description: This is a semester long lab that will have the students doing real world things such as paying for rent, preparing a budget, solving real world problems, and being an employee of the teacher.

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Contact Information: Pomeroy High School

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Lab Title That's Life!!

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**
 1. solve basic math problems using addition, subtraction, multiplication, and division.
 2. apply basic math skills to solving "real world" problems.
 3. solve percentage problems.
 4. develop an awareness of money and how to use it in a social situation.
 5. explain a math procedure using the correct terminology. (i.e. add, subtract, plus, minus, multiply, etc.)
- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.)

Basic math skills of adding and subtracting to start, but will add upon as the semester goes
- **Vocabulary**

All vocabulary learned throughout the semester
- **Materials List**
 - an apartment book
 - fake money (for counting and manipulating)
 - can also use fake checkbooks if you can get a hold of some
 - price list of utilities
 - grocery ads
 - Notebook (for keeping a journal)
 - pencil/pen
 - Or Internet and Computers to do all the above
- **State Standards addressed**

Math: A1.1.C, A1.2.B, 6.2., 5.2., 5.4.
Reading: 1.2.2, 2.1, 2.1.4, 2.1.6, 3.1, 3.3
Writing: 1.1, 1.3, 2.2
- **Leadership Skills**

3.1, 3.4, 1.1, 1.3, 1.5, 1.6, 2.1, 2.2
- **SCAN Skills/Workplace Skills**

1.1, 1.2, 1.3, 1.4
- **Set-up information**

Prepare job cards that show what a job does and the average pay in your area for that job. Have one job per student. Have all other material ready for students to use once they get their job.

- **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations; -**Timeline required**)

Each student picks a job and then gets the job card for that job (these can also be a mix of careers as well).

Then students will be getting paid for their work at that job – base this upon attendance in class. Then give commissions based upon grades for assignments. (*if using the checkbooks, have automatic deposit and just print out paystubs)

Students have to research a place to live (can be buying or renting, but must have all the facts) – they then record in their journal their finding and what they will be paying a month for: rent and insurance for their place to live (*you can allow them to live with others and share this if they want)

Students research expenses related to living on your own and come up with a list of things they will have to pay for with estimated costs. They record all of this in their journal.

Then they will need to write down 2-3 word problems that show what they have and what they need to find in order to decide what their total costs each month will be.

Students will keep track of their spending each day in class (allow them 5-10 minutes to work on their journals)

Pay the students once a week – make sure you keep track of the pay you have given them each week.

Periodically give students some unexpected expense or situation and have them write a word problem to show what they will do.

Periodically give them word problems and have them in their journals write down the steps for solving the problem in their journal.

Check journals as they are working to be sure students are staying current.

- **Teacher Assessment of student learning** (scoring guide, rubric)
 1. Complete a journal of the semester's transactions and calculations.(check periodically and grade)
 2. Complete five word problems involving addition, subtraction, multiplication, division, and percentage.
 3. Write five word problems involving addition, subtraction, multiplication, division, and percentage.
- **Summary of learning** (to be finished after student completes lab)

In their journal have the students write a brief summary of what they learned from the activity. Then have them present to the class their word problems they wrote up. Have their students show their parents their journal and discuss with them what could be added or changed in the lab to make it more relevant to them. Then discuss these changes with the class.

- **Optional activities**

Have students create a budget using Spreadsheet software
Have students

- **Career Applications**

Gives them a better understanding of possible career choices and the money those choices will make for you.

LAB TITLE: That's Life!!

STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**
 1. solve basic math problems using addition, subtraction, multiplication, and division.
 2. apply basic math skills to solving "real world" problems.
 3. solve percentage problems.
 4. develop an awareness of money and how to use it in a social situation.
 5. explain a math procedure using the correct terminology. (i.e. add, subtract, plus, minus, multiply, etc.)
- **Grouping instructions and roles**

You are each a citizen of Mrs. Miller's classroom, and have jobs that you do to make this town work. You will need to work together at points to make sure that you are maintaining a lifestyle you enjoy.
- **Procedures** – steps to follow/instructions
 1. Pick a job/career off the white board – then read the back of the card to learn about your job and your hourly wage.
 2. Find a place to live and know the monthly expenses for that place
 3. Compute the estimated monthly expenses for you during the month – remember you don't live with mom and dad anymore so you have to pay for everything.
 4. Keep a journal of all the information and research that you do.
 5. Write down a monthly budget in your journal
 6. Compute the pay you should get based upon hourly and commission – (your job card has rates)
 7. Create word problems as directed
 8. Keep your journal with you at all times to do daily activities with your income and expenses.
 9. When you get paid be sure to record and then pay expenses.
- **Outcome instructions**

At the end of the semester you need to make sure that you can turn in a journal that will have all the required assessment pieces, you need to still have money available, and complete a discussion activity with your parents. When done with this semester you should have a very clear understanding of what real-life will be like.
- **Assessment instructions** (peer-teacher)
 1. complete a journal of the semester's transactions and calculations.(check periodically and grade)
 2. complete five word problems involving addition, subtraction, multiplication, division, and percentage.
 3. write five word problems involving addition, subtraction, multiplication, division, and percentage