Lab Framework

Text: CORD Unit 2 Unit number and title: Short Description: Unit 2 Estimating answers Developed by: Bryce McGrew Contact Information: Bryce.mcgrew@vansd.org Date:6-24-10

Lab Title Estimating Prescriptions

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- Lab Objective
 - To look at how long prescriptions last
- Statement of pre-requisite skills needed (i.e., vocabulary, measurement techniques, formulas, etc.)

The knowledge of whole numbers and the values of each spot of whole numbers up to the thousand value

- Vocabulary
- Materials List

Prescription day holders, beans (to represent pills), cups (to represent container), paper, pencil

• State Standards addressed

Math: 1.1 Understand and apply concepts and procedures from number sense. 1.5.5 Apply procedures to simplify expressions.

Reading: 1.2.2 Apply strategies to comprehend words and ideas. Writing: (Wr1.3 Apply writing convention; know and apply correct spelling, grammar, sentence structure, punctuation, and capitalization.iting)

Leadership Skills

• The students will exhibit leadership by showing the ability to work in small groups to collect data. You will need to assign jobs and work cooperatively in groups to effectively complete the lab.

SCAN Skills/Workplace Skills

Basic SkillsC. Identifies relevant details, facts and specificationsWritingB. Records information completely and accurately

Arithmetic

B. Uses basic numerical concepts such as whole numbers and percentages in

practical situations

C. Makes reasonable estimates of arithmetic results without a calculator **Mathematics**

A. Approaches practical problems by choosing appropriately from a variety of mathematical techniques.

B. Uses quantitative data to construct logical explanations for real world situations

• Set-up information

The set up for this lab will contain getting a cup with beans in it and the holders for the pills. You will need a pencil and paper. Each group will need one set of all the above.

Lab organization(-Grouping/leadership opportunities/cooperative learning

expectations; -Timeline required)

Students will be in pairs so they will need to cooperatively work with one partner to complete the task.

-The students will come up and get the materials for the lab.

-The directions to the lab will be given

-The students will count the beans and make an estimation by rounding how many days they think the medication can last based on how many pills are needed per day.

- Once they have their estimation they will count out and split up the pills in the per day allotment and figure out exactly how long the medication will last.

They are to record all data collected

• Teacher Assessment of student learning (scoring guide, rubric)

I will assess the student learning by seeing how close their estimations were and how they came to that number for an estimation. Then I will see if they came up with the correct exact answer to the problem.

• **Summary of learning** (to be finished after student completes lab)

-This will be completed at the end of the lab when the students have collected their data and came up with their final answers.

-This is directly related to either a career in the medical field or to anyone who may take medication and when to know when they should order more prescriptions.

Optional activities

Create more scenarios for how many pills need to be taken in a day and estimate how long that prescription will last.

Pharmacists or anything in the medical field.

Most people will take medications so this is a personal application to their life in having the ability to estimate how long a prescription will last.

https://wa-appliedmath.org/

LAB TITLE: <u>Counting Pills</u> STUDENT INSTRUCTIONS:

• Statement of problem addressed by lab

How accurately can we estimate the duration of our prescription with rounding?

What is the importance of knowing how long a prescription will last?

Grouping instructions and roles

Students will be split into groups of two

One student will be the recorder of information

One student will retrieve the materials and return them.

Both students will work together to come up with the solution to the lab.

• **Procedures** – steps to follow/instructions

Hand out lab sheet.

Go over lab expectations

Get materials

I will then give the prompt for how many pills per day the student is taking It will be 3 pills per day.

The students will then count the total number of pills they have and make an estimation on how many days they will be able to use that amount of pills for.

Then they will count out by threes and put the pills into a prescription day organizer and figure out how many days they have left of their prescription.

• Outcome instructions

The students will see how close they were with their estimation and will explain how they came to that estimation. They will guess whether that estimation is higher or lower than the actual number of pills.

Then they will write down exactly how many days they will be able to use the prescription for.

They will tell how many if any they will have left over.

Assessment instructions (peer-teacher)

https://wa-appliedmath.org/

Lab Data Collection

	Student: D	Date:
	Unit:	
	Lab Title: Criteria: Write the problem/objective in statement form	
	Data Collection: Record the collected/given data	
	Calculations: Complete the given calculations to s	solve for an answer(s)
	Summary Statement:	
Other Assessment(s)		

https://wa-appliedmath.org/