

Lab Framework

Text:CORD Classic

Unit number and title:Unit 5 Dealing with Data

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Lab Title

Growing Watermelons

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Short Description: This lab has the students going and finding out information from 3 different sources on what Watermelons would be most efficient to grow(they are acting as a crop advisor). The students are given a certain set of rules/guidelines. 1. They are a consultant for the farmer and their job is to find out what variety of watermelons would be best for the farmer to grow. There are 3 different sources they are to use. 1. The farmer, they will need to find out what the cost of watering the watermelons, the cost of running the tractor, and the cost of man hours it will take to grow these Watermelons. 2. The Chemical and Fertilizer company, from this station they will need to find the cost of fertilizer and chemical, what costs the farmer will incur throughout the season. 3. The seed distributor, from this station they will find the variety of watermelons that they have to choose from, their individual costs and their past yield history. There will be 10 varieties to choose from, they are to only choose 3. By the end of the lab they will have a chart of all 10 varieties and know which variety will be the most profitable for the farmer to grow.

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**

To get the students to use the skills that they have learned thru unit 5. This lab will also get the students to do something a little different because they have to get up and move around the room to different stations and find out the information they will need to answer the question that is asked of them as an advisor. Then, they will have to listen to their peers and figure out what the other advisors have found out on the other varieties and put that into their chart so they can then figure out the best variety that the farmer should grow.

- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.)

Unit 1: Learning Problem - solving Techniques

Unit 3: Measuring in English and Metric Units

Unit 4: Using Graphs, Charts, and Tables

- **New Vocabulary**

Germination

Fertilizer

Net

Efficient

- **Materials List**

Pencil
Ruler
paper (lined, blank)
Clear sheets for the overhead

- **GLEs addressed**
Math: 1.1.6, 1.1.8
Reading: 1.2.2, 1.3.2
Writing: 1.3.1, 1.4.1, 1.5.1, 1.6.1, 1.6.3, 2.1.1, 2.2.1
- **Leadership Skills**
Working as a team to get the appropriate information on their chart. Making sure that the information they have is computed correctly into their chart so that their information should match up with 1 or 2 other teams that have the same variety. Making sure when they present their varieties that every student presents equally and that all information is given to the rest of the class.
- **SCAN Skills**
 1. Performs basic computations
 2. Uses tables, graphs, diagrams and charts to obtain or convey quantities conformation
- **Set-up information**

The students are given the problem they are to solve. There are three stations set up in the classroom (Farmer, Chemical and Fertilizer Co., Seed Salesman). At these different stations there will be all the different prices that the students need to know to put into their chart. Then they need to find out the most efficient watermelon variety that they as a Crop Advisor should request that the farmer should grow for the season.
- **Lab organization(-Grouping/leadership opportunities/cooperative learning expectations; -Timeline required)**

This lab will take 2-3 days

1st day - The students will get into groups of 2, visit the appropriate stations and start coming up with their own chart of data.

2nd day - The students will finish compiling their data into their charts and coming up with their most efficient variety. If there is time we will start having each group come up to the front of the class and present their information on the overhead.

3rd day - The groups will finish presenting their 3 varieties and the class will finish filling out their charts of all 10 varieties and figuring out the most efficient variety.
- **Teacher Assessment of student learning** (scoring guide, rubric)

3 = Done Very Well, 2 = Partially done, 1 = Done very poorly

Neatness -
Correctness -
Showed all work -
Filled out chart with all 10 varieties -
- **Summary of learning** (to be finished after student completes lab)

-discuss real world application of learning from lab

-opportunity for students to share/present learning

1. The student teams will analyze and determine most cost effective watermelon seed given the stated criteria.

- **Optional activities**

Crossword with Vocabulary that deals with the Unit. They have to find the appropriate vocabulary word that fits the definition and then find it in the crossword

- **Career Applications**

This lab would apply to a farmer looking for a certain crop that would benefit him the most. This would also apply to someone in a field that is comparing certain items to find out which one would be the most profitable.

LAB TITLE: Watermelons
STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**

This lab has the students going and finding out information from 3 different sources on what Watermelons would be most efficient to grow(they are acting as a crop advisor). The students are given a certain set of rules/guidelines.
- **Grouping instructions and roles**

They will be in groups in of two
- **Procedures – steps to follow/instructions**
 1. They are a consultant for the farmer and their job is to find out what variety of watermelons would be best for the farmer to grow. There are 3 different sources they are to use. 1. The farmer, they will need to find out what the cost of watering the watermelons, the cost of running the tractor, and the cost of man hours it will take to grow these Watermelons. 2. The Chemical and Fertilizer company, from this station they will need to find the cost of fertilizer and chemical, what costs the farmer will incur throughout the season. 3. The seed distributor, from this station they will find the variety of watermelons that they have to choose from, their individual costs and their past yield history. There will be 10 varieties to choose from, they are to only choose 3. By the end of the lab they will have a chart of all 10 varieties and know which variety will be the most profitable for the farmer to grow.
- **Outcome instructions**

They will be able to come up finding out the most efficient item given certain data pertaining to the item.
- **Assessment instructions (peer-teacher)**

You will be scored by the rubric. As long as the student can back up their information and reasoning on why their watermelon variety should be used. Their presentation has to be neat and legible of their final product.

Lab Data Collection

Student: _____ **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 solve for an answer(s)

Summary Statement:

Other Assessment(s)