

Lab Framework

Text: CORD

Unit number and title: Unit 5 - Dealing with Data

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Lab Title

Coffee Cart Sales Predictions

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Short Description: Students collect data on coffee sales from FBLA Coffee Cart

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**

Students will collect data from Coffee Cart while working there, by talking to employees, or by contacting the Coffee Cart accountant. They will then attempt to predict future months and future years receipts.

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

Finding averages, charting data, making tables

- **New Vocabulary**

Comparing, calculating, predicting, collecting, organizing, interpreting

- **Materials List**

Coffee Cart daily sales sheets

Paper

- **GLEs addressed**

Math: 1.1.2 – Understand the relative values of rational numbers.

1.1.7 – Apply strategies and uses tools to complete tasks involving computation of rational numbers.

1.4.6 – Determine and explain how the same set of data can support different points of view.

1.5.1 – Apply knowledge of linear and non-linear relationships to recognize, extend, and create patterns and sequences in tables and graphs.

2.2.1 – Select and use relevant information to construct solutions.

3.1.1 – Analyze numerical, measurement, geometric, probability, statistical, and/or algebraic information from a variety of sources.

3.2.1 – Draw and support conclusions

Reading: 1.3.2 – Understand and apply content/academic vocabulary critical to the meaning of the text, including vocabularies relevant to different contexts, cultures, and communities.

Writing: 3.2.2 – Analyzes and selects language appropriate for specific audiences and purposes.

- **Leadership Skills**

1.1 Analyzing, refining, and applying decision making skills

1.4 Activities that require applying theory, problem solving, critical and creative thinking

2.1 Student will participate in team/group activities

- **SCAN Skills**

Basic Skills

A - Understands and interprets written information in graphs

B - Records information completely and accurately

Arithmetic

A - Performs basic computations

D - Uses tables, graphs, diagrams, and charts to obtain or convey quantities of information

Mathematics

B - Uses quantitative data to construct logical exclamations for real world situations

D - And understands the role of occurrence and prediction of events
ETC...

- **Set-up information**

Students have already been encouraged to be a part of FBLA and as members to work at the FBLA Coffee cart. The FBLA accountant's data will be brought in by the teacher as reference materials for the students.

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

One FBLA/Coffee Cart employee will lead each group. Number of groups will depend on number of employees in the class. While the data will be collected over several weeks/months by the accountant and employees, the data interpretation and prediction will be done within one 55 minute class period.

- **Teacher Assessment of student learning** (scoring guide, rubric)

Students make high quality tables and have reasonable predictions – 100%

Students make abbreviated but accurate tables with good predictions – 90%

Students have abbreviated but accurate tables with faulty predictions – 80%

Students have inaccurate tables with good interpretation – 70%

Students have inaccurate tables and faulty interpretation/predictions – 60%

Students have varying levels of completion < 60%

- **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

- **Optional activities**

- **Career Applications**

Small business management, accounting, supply chain management

LAB TITLE: Coffee Cart Sales Predictions

STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**

You have been working at the FBLA coffee cart for a couple of months now and collecting data about sales. You need to organize the data into charts or tables and make predictions about sales for the next month and then for next year. Are sales going to go up? Down? When is the best time for coffee sales?

- **Grouping instructions and roles**

Your instructor has chosen groups led by the most active Coffee Cart employees. Your instructor will split the Coffee Cart sales sheets available into equal sized time sets. Your group leader will provide the information and split your information evenly, each member will be responsible for tabulating a portion of the data. One member will organize the data into a table with input from other members. All members will help make predictions and provide the reason for the interpretation. One member will be designated recorder and will write up the predictions.

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

The group leader will get the raw Coffee Cart sales sheets from your instructor and will split them evenly among the members giving each consecutive days. The group will decide how to organize the data. Each member will organize his/her data into a form approved by the group. The member in charge of organization will put each member's piece into the master table. As a group, the members will make predictions and come up with the reasons for the predictions. The recorder will write down the predictions. About 10 minutes before class is out, each group will report it's findings to the teacher for the master list. Then the class will look at the complete data and decide if they like the predictions or would like to make changes.

- **Outcome instructions**

The groups will turn in to the teacher a table of data from the receipts given to their group and a sheet of paper with the group's predictions in paragraph form.

- **Assessment instructions (peer-teacher)**

The outcomes will be assessed by the teacher according to the following rubric:

- Students make high quality tables and have reasonable predictions – 100%
- Students make abbreviated but accurate tables with good predictions – 90%
- Students have abbreviated but accurate tables with faulty predictions – 80%
- Students have inaccurate tables with good interpretation – 70%
- Students have inaccurate tables and faulty interpretation/predictions – 60%
- Students have varying levels of completion < 60%

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)