Lab Framework

Text: CORD

Unit number and title: Unit 9

Short Description: Students will separate a mixture to find out the ratio of its components. They will use 3 lb bag of trail mix.

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Date: June 2010

Trail Mix

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**
  Students will separate a mixture to determine the ratio of the ingredients to the whole.
- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.) Students should know how to convert weights to a ratios.

- **Vocabulary**
  Ratio - Comparison of two quantities or units.
  Proportion - An expression of equality between two ratios.
- **Materials List**
  Enough Trail mix for ½ cup for every two students
  Digital Food scales
  Measuring cups
  Paper to do the separating on

- **State Standards addressed**
  Math: 6.3.A
  Reading: Identifies relevant details, fact and specifications
  Writing: Records information completely and accurately
- **Leadership Skills**
  Works well in a group with others to obtain information
- **SCAN Skills/Workplace Skills**
  Participates as a member of a team
  Acquires and evaluates information
- **Set-up information**
  Proved the Trail mix and students will first weight the quantity
  Then, they will go directly into sorting
  The separated piles will be weighed to get a proportion of each part to the whole

- **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations; - **Timeline required)**
  Students will work in pairs to sort their amount and record their data on the paper provided

- **Teacher Assessment of student learning** (scoring guide, rubric)
  3 - Full participation and accurate data
  2 - Participation with some inaccurate data

1 - Low level of participation and inaccurate data
0 - No participation

- **Summary of learning** (to be finished after student completes lab)
  -discuss real world application of learning from lab
    By discovering the recipe, we know how the manufacturer has created the mixture
    We can recreate it in our lab
    We can discuss career opportunities in recipe development
  -opportunity for students to share/present learning

    Students can take turns doing the weighing and writing the data on the screen
- **Optional activities**

- **Career Applications**

  Careers in the food industry

LAB TITLE:_____
STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**
- **Grouping instructions and roles**
- **Procedures** – steps to follow/instructions
- **Outcome instructions**
- **Assessment instructions** (peer-teacher)

Lab Data Collection

Student: _____ **Date:** _____

Unit: _____

Lab Title: Trail Mix

Criteria: Write the problem/objective in statement form

Data Collection: Record the collected/given data

Total Weight : _____ Weight of each:
raisens_____M&M_____Peanut____almond_____cashews_____

Second sample:_____ raisens_____M&M_____Peanut____Almond____Cashews_____

Totals: _____

Calculations: Complete the given calculations to solve for an answer(s)

Summary Statement:

Other Assessment(s)

Group Activity with one scale!

(Ratio = Amount part / Total amount)

Total weight of the bag; _____

Weight of Peanuts	_____	_____	
Weight of Almonds	_____	_____	Which is the greatest?
Weight of M and M's	_____	_____	Which is the least?
Weight of Raisens	_____	_____	Would you change it?
Weight of Cashews	_____	_____	

Above - calculate the ratio for each