Lab Framework

Text: CORD

Unit number and title: Unit B

Short Description: The students will calculate percentages of a mixture

Developed by: Karen Ringwood

Contact Information: klrwalk@yahoo.com

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It's a Jolly Day!

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**
  Given a mixture the students will work together to sort by color and calculate the percentage of each type.
- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.)
  Calculation of fraction and percentages
- **Vocabulary**
  Digit - Any of the whole number 0 - 9
  Fraction - A number written with one whole number over another
  Percent - parts per hundred
- **Materials List**
  Jolly ranchers
  Student data sheet
- **State Standards addressed**
  Math: 6.5.A
  Reading: Students will read and follow directions for activity
  Writing: Students will write their prediction and a summary
- **Leadership Skills**
  A group leader will supervise the counting of the pieces and report the finding to the class recorder
- **SCAN Skills/Workplace Skills**
  Participates as a team member
  Acquire and evaluate information
- **Set-up information**
  1. Give a group of 4 a bucket of Jolly ranchers and have them sort by color
  2. Report the data to the class recorder and turn in Jolly ranchers for later use
  3. Once all groups have turned in data…class members can calculate percentage for total bag.

- **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations; -**Timeline required)**
  Students will be in groups of 4
  Students will have data sheet and supplies

- **Teacher Assessment of student learning** (scoring guide, rubric)
  Teacher will verify data calculated following class activity. Each student will complete the table provided.

- **Summary of learning** (to be finished after student completes lab)
  -discuss real world application of learning from lab
  Mixtures are calculated through consumer testing and research.
  -opportunity for students to share/present learning
  Students will share answers to questions

- **Optional activities**
  Calculate cost/piece or per serving
  What is considered a serving?
  How many servings per bag?
  What is the weight of the bag?
  What percentage is 10 pieces by weight?

- **Career Applications**
  Discuss mixtures as recipes and recipe creation.
  Food Science
  Market Researcher
  Food Distribution

LAB TITLE: It's a Jolly Day!
STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**

Packaged mixtures are intentionally combined according to a pre-determined ratio. Determine the ratios decided upon by Jolly Rancher.

- **Grouping instructions and roles**
  1. **We will be in groups of 3**
  2. **Determine a recorder, and 2 sorters. Answer the pre-lab question**

     Pre-lab questions:
     a. Do you think the percentages will be the same or different? Why?

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

  1. **Given a bucket of Jolly Ranchers, sort by color**
  2. **Count number in each group**
  3. **Add together to find total**
  4. **Using data, calculate the percentage of each color**

- **Outcome instructions**
  Add data to classroom data
  Compare your percentages to those of your classmates. Similar? Different?
  b. Why does a particular ratio matter per bag?

- **Assessment instructions** (peer-teacher)
  Complete the handout and following class discussion, turn in to teacher

Lab Data Collection

Student: _____ **Date:** _____

Unit: _____

Lab Title:

Criteria: Write the problem/objective in statement form

Data Collection: Record the collected/given data.

Include color and number of each in your sample

Add your sample numbers together for a total to calculate the percentages.

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

Please calculate the percentages (# color / Total number)

Summary Statement:

Other Assessment(s)