Lab Framework

Text: Cord

Unit number and title: Unit 9—Using Ratios and Proportions

  Short Description: A lab in which students adjust recipes to accommodate a larger group of people

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Lab Title
Adjusting Recipes

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**
  SWBAT write proportion in proper order
  SWBAT convert units so that they are the same in matching terms of the comparison
  SWBAT adjust recipes using ratios and proportions
- **Statement of pre-requisite skills needed** (i.e., vocabulary, measurement techniques, formulas, etc.)
  Knowledge of measuring equivalents, multiplication and division
- **Vocabulary**
  Circle graph, convert, fraction, decimal, percent
- **Materials List**
  Worksheet, calculators, pencils, overhead
- **State Standards addressed**
  Math: 6.3.A, 7.2.B
  Reading:
  Writing:
- **Leadership Skills**
  Group Collaboration, defined roles, effective communicator
- **SCAN Skills/Workplace Skills**
  Interpersonal, Information
- **Set-up information**
  1. Overhead ready
  2. Calculators ready for distribution
  3. Worksheet ready to handout
- **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations)
  1. Students will work in pairs
  2. Each student will do some calculating and some recording
- **Teacher Assessment of student learning** (scoring guide, rubric)
  1. Visual observation
  2. Collection of worksheet
- **Summary of learning** (to be finished after student completes lab)
  1. Discuss real world application of learning from lab
  2. Opportunity for students to share/present learning

- **Optional activities**

  Once amounts for ingredients are determined, the student may want to convert some of the ingredient units from cups to pounds (for the sake of purchasing). One may also want to estimate the cost for making this meal

- **Career Applications**

  Caterers and restaurants adjust recipes regularly to make sure they are feeding their customers enough, but at the same time they want to minimize food costs, so accurate recipe calculations are extremely important.

LAB TITLE: ADJUSTING RECIPES

STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**
  Adjusting recipes to accommodate more people

- **Grouping instructions and roles**
  Students will work in pairs. They will take turns doing the calculations and recording information

- **Procedures** – steps to follow/instructions
  1. Students will work in pairs.
  2. Using calculators and worksheet they will make the calculations

- **Outcome instructions**
  Are calculations done correctly?

- **Assessment instructions**
  Discuss calculations at the end of class, go over in class
  Worksheet to be turned in at the end of the period

SEE LAB WORKSHEET ATTACHED

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)

Names _____

Worksheet for Unit 9 Lab
ADJUSTING RECIPES FOR A CROWD

You have two recipes that you love to make for your family and now you want to serve them to a gathering of 24 people. Using proportions, calculate how much of each ingredient you would need to purchase for both recipes. Show all work☺ for maximum credit.

CHICKEN CORDON BLEU		
For 4 servings	Set up proportion and solve for X	(X) For 24 servings
4 skinless, boneless chicken breasts		
4 slices Swiss or provolone cheese		
4 thin slices smoked ham		
¼ cup all-purpose flour		
1 egg, beaten		
1 cup Italian seasoned bread crumbs		
4 Tbsp butter		
½ cup chicken broth		
1 cup whipping cream		

Pound chicken breast to ¼ inch thickness. Sprinkle each piece on both sides with salt and pepper. Place 1 cheese slice and 1 ham slice on each breast. Roll up each breast using toothpicks to secure if necessary. Dredge each in flour, shake off excess, then in egg and finally in bread crumbs. Place seam side down in baking dish that has been sprayed with cooking spray oil. Place 1 Tbsp butter on each piece of chicken. Bake at 350° for 35 min. until juices run clear. (Check temperature with a thermometer (should be at least 165° F). Meanwhile in a saucepan, combine broth and whipping cream; season to taste (salt, pepper, garlic, oregano). Simmer on low stirring until thickened; Pour over chicken.

RICE PILAF		
For 4 servings	Set up proportion and solve for X	(X) For 24 servings
$\frac{3}{4}$ cup converted rice (Uncle Ben's)		
$\frac{1}{4}$ cup chopped onions		
1 Tbsp chicken base		
3 Tbsp butter		
1 $\frac{1}{4}$ cups hot water		
2 Tbsp diced red bell pepper		
$\frac{1}{4}$ cup diced green bell pepper		

Rinse rice with hot water. Sauté onions in butter for about 5 minutes, until tender. Stir in rice, coating all rice with butter. Mix chicken base and pepper with the hot water; pour over rice and stir. Place in a covered casserole or ovenproof pan. Bake at 350° for 25 to 30 minutes. Mix red and green pepper into rice. Serves 4.

STEAMED BROCCOLI		
For 1 serving	Set up proportion and solve for X	(X) For 24 servings
$\frac{1}{2}$ pound		

1. What did you find challenging in making these conversions?

2. What, if anything, might you have done differently?

3. Did anything surprise you about the information you found?