Lab Framework

Text: CORD/AMME(Integrated into all units)
CORD-Unit number and title: Unit B, 3, 9 AMME-Unit 2, 3, 7,
Short Description: To assist students in learning how to calculate total calories consumed.
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Date:6/25/2010

Lab Title
"To Pig Out or not to Pig Out?"

LAB PLAN

TEACHER: Teacher Prep/ Lesson Plan

- **Lab Objective**
  To be able to read food labels and calculate total calories consumed.
- **Statement of pre-requisite skills needed** (i.e., vocabulary, formulas, etc.)
  Knowledge of calories and how to read food labels.
- **Vocabulary**
  Calories, servings, Fat Calories, consumed.
- **Materials List**
  Computer, Internet,
- **State Standards addressed**
  Math: A1.8.A, A1.8.B, A1.8.C.
- **Leadership Skills (FBLA, FFA, FCCLA, SKILLSUSA, DECA)**
  Group collaboration, practice for team and math related competitive events.
- **SCAN Skills/Workplace Skills**
  Collection of data and analysis in Health Occupations.
- **Set-up information**
  Organize students to set up in groups of two or individually.
- **Lab organization**(-Grouping/leadership opportunities/cooperative learning expectations; -**Timeline required)**
  Students should work on this project collaboratively, this lab can be done in one period.
- **Teacher Assessment of student learning** (scoring guide, rubric)
  Students will turn in their lab worksheets with their recorded data.
- **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**
  Discuss favorite foods and analyze food labels for those foods.
- **Career Applications**
  How data is analyzed for a continuing healthy lifestyle.

LAB TITLE: "To Pig Out or not to Pig Out!"
STUDENT INSTRUCTIONS:

- **Statement of problem addressed by lab**
  To collect data and compare the total income of six movies.

- **Grouping instructions and roles**
  Students can help each other collect the data.

- **Procedures** – steps to follow/instructions
  Students will collect data from a food label. Students should note that values listed on a food label are for one serving size of the food product. To calculate the total calories consumed, they will need to multiply the number of servings consumed by the number of calories per serving. Students will answer questions relating to information on the food label. Students can use the food label provided or use one from one of their favorite foods.

- **Outcome instructions**
  Students will take the data and analyze what would constitute a healthy serving.

- **Assessment instructions** (peer-teacher)
  Students analyze the information to come up with a healthy eating lifestyle.

Lab Data Collection

Student: _____ **Date:** _____

Unit: 1

Lab Title: "To Pig Out or not to Pig Out?"

Criteria: Write the problem/objective in statement form
What constitutes a healthy serving portion?

Data Collection: Record the collected/given data
Students will refer to the given food label or select one from one of their favorite foods.

Calculations: Complete the given calculations to solve for an answer(s)
Calculate the information asked for from the given or selected food label.

Refer to the food label presented on the left side of this table for the lab questions listed below.

You should note that values listed on a food label are for one serving size of the food product. To calculate the total calories consumed, you will need to multiply the number of servings consumed by the number of calories per serving.

QUESTIONS:

1. List the grams of carbohydrate, protein, and fat per serving size of this product.

2. List the caloric density per gram weight for carbohydrate, protein, and fat.

3. Calculate the number of calories in a serving size that come from carbohydrate, protein, and fat of this food product.

4. What are the total number of calories in a serving size of this food product that you calculated (your numbers will be slightly different than the value presented on the label).

5. Is this a low fat food product?

6. Would the label lead you to believe that this product is only 3% fat? Is that true? (This is why it is important for you to calculate fat calories).

Summary Statement:

What did you learn from this project?

How will you use this information or not and why?

INSTRUCTOR ANSWERS:

1. List the grams of carbohydrate, protein, and fat per serving size of this product.

Carbohydrate (CHO)= 1 gram ; Protein (PRO) = 5 grams; Fat (FAT)= 1 gram

2. List the caloric density per gram weight for carbohydrate, protein, and fat.

CHO = 4 calories per gram (c/g) ; PRO = 4 c/g; FAT = 9 c/g

3. Calculate the number of calories in a serving size that come from carbohydrate, protein, and fat of this food product.

CHO = 4 c/g X 1g = 4 calories; PRO = 4 c/g X 5g = 20 calories; FAT = 9 c/g X 1g = 9 calories

4. What are the total number of calories in a serving size of this food product that you calculated (your numbers will be slightly different than the value presented on the label).

4 + 20 + 9 = 33 calories

5. Is this a low fat food product?

Yes. = 9 fat calories / 33 total calories = 0.27, or 27 % fat

6. Would the label lead you to believe that this product is only 3% fat? Is that true? (This is why it is important for you to calculate fat calories).

Yes., No.