

# Lab: Counting Calories

## COORDINATED SCIENCE 1

**BACKGROUND:** You choose to eat a meal about 1,000 times a year. Eating is a voluntary activity, but you probably don't give it a second thought. You will choose when to eat, what to eat, and how much to eat, about 65,000 times in your lifetime (if you live to be 65). You will consume about 50 tons of food. Each day's intake of nutrients may affect your body only slightly, but over a period of years, the effects of those intakes will build up. This is why it's important for you to learn how to make wise food choices.

A well balanced diet definitely contributes to a healthy body. Yet many teenagers do not have good eating habits. They may skip breakfast, choose snacks that are rich in fats and sugars, go on crash diets, and neglect foods that contain important nutrients. For most American, improper nutritional habits cause health problems.

Good eating habits during the teenage years usually mean fewer problems during later years. Scientists have begun to take a closer look at the relationship between nutrient intake and chronic, life-threatening diseases. Heart disease, diabetes, high blood pressure, kidney disease, various digestive disorders, and even certain types of cancer have all been found to be connected with nutrition. It is becoming more and more evident that "you are what you eat".

In this investigation, you will examine the nutritional values of fast foods that you might normally order at your favorite fast-food restaurant. You will then evaluate the nutritional values of your choices and plan a more nutritionally balanced meal from that same restaurant utilizing tables of Recommended Dietary Allowances (RDA) and tables listing the nutritive values for specially and fast-food items.

### **MATERIALS:**

- Nutrition-information pamphlets from national fast-food restaurants
- Table of Recommended Dietary Allowances (RDA)
- Calculators

### **PROCEDURE:**

1. Pick your favorite fast-food restaurant and make a list of items you might order for a typical meal (lunch or dinner). List these items in Data Table #1. (Make sure the restaurant is listed in Nutrition Table. If not, choose an alternative fast-food restaurant)
2. Fill in Data Table #1 utilizing the Nutrition-information pamphlets provided by the teacher. Also calculate the percentage of calories due to carbohydrates, proteins and fat.
3. Answer questions 1 through 6
4. Now by looking at the Fast-food pamphlets, reorder your meal from the same Restaurant substituting foods with fewer calories and fat. Place this information in Data Table #2.
5. After completing Data Table #2 answer questions 7 through 10.

## QUESTIONS:

- Using the Table of Recommended Dietary Allowances below, what is the recommended number of Calories you should consume daily?

Recommended Dietary Allowances

Sex	Age	Calories	Protein (g)	Calcium (mg)	Iron (mg)	Vitamins		
						A (i.u.)	B <sub>1</sub> (mg)	C (mg)
Males	12–16	2700–3000	46–54	1200	18	5000	1.4	50–60
Females	12–16	2100–2400	44–48	1200	18	4000	1.1	50–60

g = grams, mg = milligrams, i.u. = international units

- Using the following formulas, calculate the recommended number of grams of Fat you should consume daily.

### Formula to Estimate Daily Fat Gram Allowance

- ▶ Determine your daily calorie intake (see RDA information in above chart)
- ▶ Divide your total calories by 10 (example:  $1,800 \div 10 = 180$ )
- ▶ Divide the answer to Step 2 by 3 (example:  $180 \div 3 = 60$ )
- ▶ In this example, the total daily fat intake should not exceed 60 grams

**Daily Fat Gram Allowance** = \_\_\_\_\_

- What was the total number of **calories** of your fast-food meal? \_\_\_\_\_
- What **percentage** of your **RDA in calories** does meal total? \_\_\_\_\_
- What **percentage** of the **RDA of Fat** did you consume in your fast-food meal? (take your total in fast-food meal and divide by RDA of Fat you calculated in question number 2)

**Percentage RDA of Fat** = \_\_\_\_\_

- Based on the information you gathered in questions 1-6, how “healthy” do you think your fast-food meal is?

Table #1: Typical Fast Food Meal

Name of Fast Food Restaurant: \_\_\_\_\_

Food Item	Calories	Protein (g)	Fat (g)	Carbohydrate (g)
<b>Totals =</b>				

	% calories of Protein	% calories of Fat	% calories of Carbohydrate
<b>Totals</b>			

Table # 2: Healthier Choice

Name of Fast Food Restaurant: \_\_\_\_\_

Food Item	Calories	Protein (g)	Fat (g)	Carbohydrate (g)
<b>Totals =</b>				

	% calories of Protein	% calories of Fat	% calories of Carbohydrate
<b>Totals</b>			

