

# Investigating Your Health: Everyday Weighing and Measuring

Name: \_\_\_\_\_

**Objective:** Investigate the Nutrition Facts label of your favorite snack and compare it to an alternative snack.

You use weights and measures for many different things, like when you are determining what size clothes to buy or when cooking. When cooking in the kitchen you use dry and liquid measuring cups to measure the ingredients. You can also use a scale to weigh the ingredients.

Did you know the Nutrition Facts label is actually a measurement of what's in your food? The grams and milligrams on the label are the weight of what is in that food. When reading labels, the first thing you should look at is the amount of calories in one serving. The calories come from the fat, carbohydrates, and protein in the food. Each gram of carbohydrate and protein accounts for 4 calories. Each gram of fat accounts for 9 calories.

Although trans fat does not have a % Daily Value (DV), you should eat as little of this as possible. Sugar also does not have a % DV, and if the sugar is added, you should try to limit this food. Choose foods low in trans fat and sugar, with >20% DV of Vitamin A, C, iron, calcium, potassium, and fiber, and choose foods with <5% DV of saturated fat, cholesterol, and sodium. If a food is high in trans fat, saturated fat, cholesterol, sodium, and added sugars, and low in vitamins, minerals, and fiber, you should limit how much you eat of that food. For more measuring fun, see the *Try This at Home* recipe!



## TEACHER EDITION

1. Go to the grocery store and look at the Nutrition Facts label on one of your favorite snack foods. If you are unable to go to the grocery store, use the handout provided by your teacher, or access the nutrient database on the USDA website noted below. Complete the Nutrition Facts Labels and the % DV chart below. Record how many servings you normally eat per week of your favorite snack. You will use this information to help you answer questions 6 through 11.

USDA Nutrient Database: <http://ndb.nal.usda.gov/ndb/foods/search/list>

**Your Favorite Snack:** Canned Pineapple Packed in 100% Juice

**Number of Servings:** \_\_\_\_\_

Use the information in the Nutrition Facts label and % Daily Value chart you completed for your favorite snack to help you answer questions 2 through 6 and questions 10 and 11.

- Draw a square around *Serving Size* on each nutrition facts label.
- Draw a circle around *Sodium* on each nutrition facts label.
- Draw a triangle around *Sugars* on each nutrition facts label.

| Nutrient      | %DV |
|---------------|-----|
| Saturated Fat | 0%  |
| Cholesterol   | 0%  |
| Sodium        | 0%  |
| Potassium     | 4%  |
| Fiber         | 5%  |

| Nutrition Facts         |                   |
|-------------------------|-------------------|
| Serving Size            | $\frac{1}{2}$ cup |
| Calories                | 70                |
| Total Fat               | 0g                |
| Sodium                  | 0mg               |
| Total Carbohydrates     | 16g               |
| Dietary Fiber           | 1g                |
| Sugars                  | 15g               |
| Protein                 | <1g               |
| Vitamin A               | 0%                |
| Vitamin C               | 25%               |
| Vitamin E               | 0%                |
| Calcium                 | 0%                |
| Iron                    | 2%                |
| Thiamin                 | 0%                |
| Niacin                  | 0%                |
| Folate                  | 0%                |
| Vitamin B <sub>12</sub> | 0%                |
| Zinc                    | 0%                |
| Magnesium               | 0%                |

6. Calculate how many calories you are eating from your favorite snack. Multiply the number of servings you normally eat by the number of calories of each snack. *Show your work.*

Student's answer will vary based on their favorite snack.

$$2 \text{ servings} \times 140\text{cal} = 280\text{cal}$$

7. Calculate the calories from *Total Fat* for the amount of servings you normally eat. Use the grams of *Total Fat* found on the food label. There are 9 calories for each gram of fat. *Show your work.*

Student's answer will vary based on their favorite snack.

$$\begin{aligned} 2 \text{ servings} \times 7\text{g fat} &= 14\text{g fat} \\ \frac{14\text{g} \times 9\text{cal}}{14\text{g}} &= 126\text{cal} \end{aligned}$$

8. Calculate the calories from Total Carbohydrate for the amount of servings you normally eat. Use the grams of Total Carbohydrate found on the food label. There are 4 calories for each gram of carbohydrate. *Show your work.*

Student's answer will vary based on their favorite snack.

$$\begin{aligned} 2 \text{ servings} \times 21\text{g fat} &= 42\text{g fat} \\ 42\text{g} \times 4\text{cal} &= 168\text{cal} \end{aligned}$$

9. Calculate the calories from sugar from the amount of servings your normally eat. Use the grams of sugar found on the food label. There are 4 calories for each gram of carbohydrate. *Show your work.*

Student's answer will vary based on student's favorite snack.

$$\begin{aligned} 2 \text{ servings} \times 13\text{g sugar} &= 26\text{g sugar} \\ 26\text{g} \times 4\text{cal} &= 104\text{cal} \end{aligned}$$

## TEACHER EDITION

10. If you were to replace your favorite snack with  $\frac{1}{2}$  cup of pineapple chunks packed in 100% fruit juice, calculate the number of calories, calories from Total Fat, and calories from Total Carbohydrate. Do the same calculations as in questions 6-9, but use the canned pineapple Nutrition Facts instead.

Calories: *Student's answer will vary based on their favorite snack.*

70

Calories from total fat: *Student's answer will vary based on their favorite snack.*

0

Total carbohydrate: *Student's answer will vary based on their favorite snack.*

64

11. Based on your answers to the previous questions, which snack is the better option and why?

*Student's answer will vary based on student's favorite snack. When comparing the Oreos in this example, the canned pineapple is the better option because it has fewer calories, fat and more potassium, fiber, and vitamins and minerals than the Oreos. Oreos are also more processed when compared to the canned pineapple. Processing removes beneficial nutrients from the raw ingredients in Oreos while they are made.*