

How Much Sugar?

K-2

S . 4 . 1

Objectives

Students will be able to:

- Identify sugar sweetened beverages.
- Recognize the amount of sugar present in a sugar sweetened beverage.
- Name healthier options that could substitute sugary beverages.

Standards Met

- **5.1.N** Use a decision-making process to select healthy foods
- **5.2.N** Compare and contrast healthy and less-healthy food choices for a variety of settings.

Overview of Sugar Sweetened Beverages

Did you know? Most adults eat or drink about **18 teaspoons** of added sugar a day.

Added sugars are sugars and syrups that are added to foods and drinks when they are processed or prepared. These are different from natural occurring sugars such as the ones in fruits and milk. The more added sugars we eat and/or drink, the more calories we consume, and the more likely we are to gain weight.

Healthy People 2020 Goals are to “reduce consumption of added sugars” as they increase calories in our diet and may promote obesity and other health problems. Sugar sweetened beverages are one of the highest sources of added sugars in the diet and contribute the most “empty calories.” Empty calories are foods and drinks that are high in calories but low in nutrients.

Some drinks that have added sugars include soft drinks, processed juices, sports drinks, chocolate milk, milkshakes, sweet teas, etc.

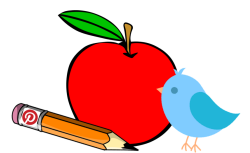
Reading ingredient labels is the best way to identify added sugars. Names for added sugars on food labels include:

Brown sugar • corn syrup • dextrose • fructose • invert sugar • lactose • malt syrup • maltose • nectars • sucrose

It is important to teach young students to recognize sugar sweetened drinks, help them understand the risks that these drinks pose to students’ health, and encourage them to choose healthier drinks such as water, milk and 100% natural fruit juices.

For more information on sugar sweetened beverages, go to:

www.mentorprojectfiu.com



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Make The Connection

Materials

- Worksheet: How Much Sugar? for Grades K-2
- Supplemental Material: Sugar Shockers, Nutrition Facts Label and Sugary Nutrition Facts Labels
- For Sugar Shocker: containers of various sugar sweetened beverages filled with the amounts of sugar they contain

Using the worksheet titled **“How Much Sugar?” for Grades K-2**, help your students identify sugar sweetened beverages and explain the benefits of choosing low sugar options.

Ask students about their favorite drink and whether they believe the drink has added sugars or not. As part of this activity, divide the board in two. Write natural sweetened beverages on one side of the board and beverages with added sugars on the other side of the board. Write the students’ favorite drinks in the corresponding side of the board and let them discuss this as a class.

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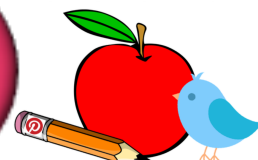
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Direct the attention to the high sugar drinks and explain that these drinks have added sugars. Briefly explain the difference between added sugars and natural occurring sugars. Mention that added sugars can make it hard for the body to work at its best and mention some health issues that may arise from having too much sugar in the diet (ex. overweight, obesity, diabetes and heart disease). Then, discuss the drinks in the natural sugar column. Explain to students that these drinks are a better option because they may provide more benefits. For example, water can keep us fueled during exercise and throughout the day, milk helps strengthen our bones and teeth, and natural fruit juices provide us with vitamins and minerals that help us grow strong and healthy.

Show the students the bottles of sugar sweetened beverages filled with the amount of sugar they contain and leave them in a visible place for them to check while doing the activity. Refer to the supplemental sheets titled “Sugar Shockers,” “Nutrition Facts Label” and “Sugary Nutrition Facts Labels” for more information on sugar content of beverages.

Lastly, do an overview of the **“How Much Sugar?” worksheet for Grades K-2**. Explain the activity and clarify any questions the students may have.

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Supplemental Material

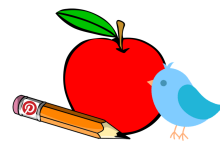
For the Teacher: Sugar Shockers

Things to Remember

- Use the Nutrition Facts Label.
- The label is based on the serving size.
- One teaspoon of sugar contains 4 grams (g) of sugar.

1. Collect different bottles of sugar sweetened beverages.
2. Locate the nutrition facts label. All the information in the nutrition facts label is based on the serving size. For example: there are 230 calories in a 2/3 cup serving size of cereal. Note: Be careful, most packages contain more than one serving per package. This is when the section of "Servings Per Container" comes to play. For example: there are eight 2/3 cup servings in a box of cereal.
3. If you want to figure out the amount of calories in the entire box of cereal, you need to multiply the calories per serving (230 calories) by the number of servings per container (8). By doing this, one can figure out that there are a total of 1,840 calories in the box of cereal.
4. Same principle applies to the sugar content, by multiplying the amount of sugar per serving (1 gram) by the number of servings per container (8), one can obtain the total amount of sugar in the box of cereal (8 grams).
5. 1 teaspoon of sugar contains 4 grams of sugar and, therefore, one can find out the amount of teaspoons of sugar in a food item by dividing the number of total sugar by 4. Based on the cereal box you need to divide 8 grams of sugar by 4grams per teaspoon, which leaves us with 2 teaspoons of sugar per serving.

| Nutrition Facts | |
|--------------------------------|----------------------|
| Serving Size 2/3 cup (55g) | |
| Servings Per Container About 8 | |
| Amount Per Serving | |
| Calories 230 | Calories from Fat 40 |
| % Daily Value* | |
| Total Fat 8g | 12% |
| Saturated Fat 1g | 5% |
| Trans Fat 0g | |
| Cholesterol 0mg | 0% |
| Sodium 160mg | 7% |
| Total Carbohydrate 37g | 12% |
| Dietary Fiber 4g | 16% |
| Sugars 1g | |
| Protein 3g | |



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USDA United States Department of Agriculture National Institute of Food and Agriculture

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Supplemental Material

For the Teacher: Nutrition Facts Label

Nutrition Facts Label of a 2-liter Coca-Cola Bottle

1. Find the serving size:
12 fluid ounces (12 fl oz).

2. Find the servings per
container: 6.

3. Find the amount of calories per serving size:
140 calories.

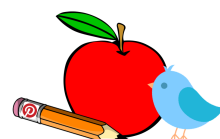
4. Find the amount of calories per 2-liter bottle of Coca-Cola:
 $140 \text{ calories/serving} \times 6 \text{ servings/bottle} = 840 \text{ calories per 2-liter bottle.}$

5. Find the amount of sugar per serving size:
39 grams (g) of sugar.

6. Find the amount of sugar in each 2-liter bottle:
 $39 \text{ g sugar/serving} \times 6 \text{ servings/bottle} = 234 \text{ g sugar/bottle.}$

7. Find the number of teaspoons of sugar in each 2-liter bottle:
Note: there are 4 g of sugar per teaspoon
 $312 \text{ g sugar} / 4 \text{ g sugar} = 78 \text{ teaspoons of sugar/bottle}$

| Nutrition Facts | |
|--|-----|
| Serving Size: 12 fl oz (360 mL) | |
| Servings Per Container 6 | |
| Amount Per Serving | |
| Calories 140 | |
| % Daily Value* | |
| Total Fat 0g | 0% |
| Sodium 45mg | 2% |
| Total Carbohydrates 39g | 13% |
| Sugars 39g | |
| Protein 0g | |
| Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, vitamin A, vitamin C, calcium and iron. | |
| *Percent Daily Values are based on a 2,000 calorie diet. | |



Supplemental Material

For the Teacher: Sugary Nutrition Facts Labels

Chocolate Milk 1 glass = 8 ounces (oz)

Nutrition Facts

Serving Size 1 cup 8 fl oz 266g (266 g)
Servings per container 1

Amount Per Serving

Calories 226 Calories from Fat 78

% Daily Value*

Total Fat 9g 13%

Saturated Fat 5g 25%

Trans Fat

Cholesterol 24mg 8%

Sodium 154mg 6%

Total Carbohydrate 32g 11%

Dietary Fiber 1g 4%

Sugars

Protein 9g

Vitamin A 5% • Vitamin C 0%

Calcium 25% • Iron 4%

*Percent Daily Values are based on a 2,000 calorie diet.
Your daily values may be higher or lower depending on
your calorie needs:

| | Calories | 2,000 | 2,500 |
|--------------------|-----------|---------|---------|
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

www.NutritionData.com

Coca-Cola 1 can = 12 oz

Nutrition Facts

Serving Size 1 Child Size, 12 fl oz 253g
(253 g)

Servings per container 1

Amount Per Serving

Calories 110 Calories from Fat 0

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 11mg 0%

Total Carbohydrate 30g 10%

Dietary Fiber 0g 0%

Sugars 30g

Protein 0g

Vitamin A 0% • Vitamin C 0%

Calcium 0% • Iron 0%

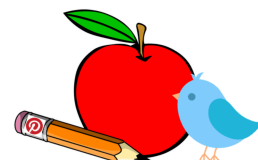
*Percent Daily Values are based on a 2,000 calorie diet.
Your daily values may be higher or lower depending on
your calorie needs:

| | Calories | 2,000 | 2,500 |
|--------------------|-----------|---------|---------|
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

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Supplemental Material

Sugary Nutrition Facts Labels

Mango Juice

1 glass = 8 oz

Nutrition Facts

Serving Size 1 cup 251g (251 g)

Servings per container 1

Amount Per Serving

Calories 128 Calories from Fat 1

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat

Cholesterol 0mg 0%

Sodium 13mg 1%

Total Carbohydrate 33g 11%

Dietary Fiber 1g 3%

Sugars 31g

Protein 0g

Vitamin A 35% • Vitamin C 64%

Calcium 4% • Iron 5%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

| | | Calories | 2,000 | 2,500 |
|--------------------|-----------|----------|---------|---------|
| Total Fat | Less than | | 65g | 80g |
| Sat Fat | Less than | | 20g | 25g |
| Cholesterol | Less than | | 300mg | 300mg |
| Sodium | Less than | | 2,400mg | 2,400mg |
| Total Carbohydrate | | | 300g | 375g |
| Fiber | | | 25g | 30g |

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

www.NutritionData.com

Gatorade

1 bottle = 21.5 oz

Nutrition Facts

Serving Size 1 bottle 609g (609 g)

Servings per container 1

Amount Per Serving

Calories 158 Calories from Fat 0

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 238mg 10%

Total Carbohydrate 39g 13%

Dietary Fiber 0g 0%

Sugars 32g

Protein 0g

Vitamin A 0% • Vitamin C 4%

Calcium 1% • Iron 2%

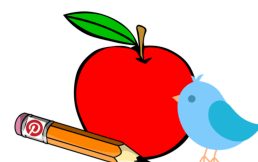
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

| | | Calories | 2,000 | 2,500 |
|--------------------|-----------|----------|---------|---------|
| Total Fat | Less than | | 65g | 80g |
| Sat Fat | Less than | | 20g | 25g |
| Cholesterol | Less than | | 300mg | 300mg |
| Sodium | Less than | | 2,400mg | 2,400mg |
| Total Carbohydrate | | | 300g | 375g |
| Fiber | | | 25g | 30g |

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

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Supplemental Material

Sugary Nutrition Facts Labels

Capri Sun

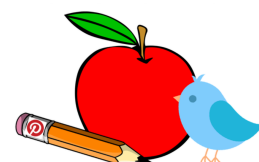
1 pouch = 6 oz

| Nutrition Facts | | | |
|--|-----------|---------------------|-------------|
| Serving Size Custom Food 170g (170 g) | | | |
| Servings per container 1 | | | |
| Amount Per Serving | | | |
| Calories 60 | | Calories from Fat 0 | |
| % Daily Value* | | | |
| Total Fat 0g | | 0% | |
| Saturated Fat 0g | | 0% | |
| Trans Fat 0g | | | |
| Cholesterol 0mg | | 0% | |
| Sodium 15mg | | 1% | |
| Total Carbohydrate 17g | | 6% | |
| Dietary Fiber 0g | | 0% | |
| Sugars 16g | | | |
| Protein 0g | | | |
| Vitamin A 0% | | Vitamin C 0% | |
| Calcium 0% | | Iron 0% | |
| *Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs: | | | |
| | Calories | 2,000 | 2,500 |
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |
| Calories per gram: | | | |
| Fat 9 | • | Carbohydrate 4 | • Protein 4 |
| www.NutritionData.com | | | |

Water

1 cup = 8 oz

| Nutrition Facts | | | |
|--|-----------|---------------------|-------------|
| Serving Size 1 cup 8 fl oz 237g (237 g) | | | |
| Servings per container 1 | | | |
| Amount Per Serving | | | |
| Calories 0 | | Calories from Fat 0 | |
| % Daily Value* | | | |
| Total Fat 0g | | 0% | |
| Saturated Fat 0g | | 0% | |
| Trans Fat 0g | | | |
| Cholesterol 0mg | | 0% | |
| Sodium 9mg | | 0% | |
| Total Carbohydrate 0g | | 0% | |
| Dietary Fiber 0g | | 0% | |
| Sugars 0g | | | |
| Protein 0g | | | |
| Vitamin A | | 0% • Vitamin C | 0% |
| Calcium | | 1% • Iron | 0% |
| *Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs: | | | |
| | Calories | 2,000 | 2,500 |
| Total Fat | Less than | 65g | 80g |
| Sat Fat | Less than | 20g | 25g |
| Cholesterol | Less than | 300mg | 300mg |
| Sodium | Less than | 2,400mg | 2,400mg |
| Total Carbohydrate | | 300g | 375g |
| Fiber | | 25g | 30g |
| Calories per gram: | | | |
| Fat 9 | • | Carbohydrate 4 | • Protein 4 |
| www.NutritionData.com | | | |



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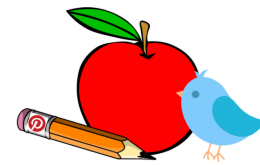
Name: _____ Date: _____

How Much Sugar?

K-2

1) Fill in the chart based on the sugar sweetened beverages listed below. To get the amount of sugar in the drink, go to the teacher's desk, find the drink labeled in the first column and check how much sugar it has. Lastly, add up all the amounts of sugar in the last row. See the first line for an example.

| DRINK | SERVING OF DRINK | AMOUNT OF SUGAR IN DRINK |
|-----------------------|------------------|--------------------------|
| Chocolate milk | 1 cup | 31 grams |
| Coca Cola | 1 small can | |
| Mango Juice | 1 box | |
| Gatorade | 1 bottle | |
| Capri Sun | 1 pouch | |
| Water | 1 cup | |
| TOTAL AMOUNT OF SUGAR | | |



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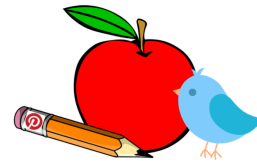
Name: _____ Date: _____

How Much Sugar?

K-2

2) Fill in the chart using the drinks from the previous chart. On the first column, write the drinks with added sugars. On the second column, write drinks with natural sugars that you can drink in place of the drink with added sugars. See the first line for an example.

| Drinks with Added Sugars | Drinks with Natural Sugar |
|--------------------------|---------------------------|
| Chocolate milk | Low-fat milk |
| | |
| | |
| | |
| | |
| | |



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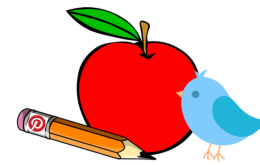
How Much Sugar?

K-2

ANSWER KEY

1) Fill in the chart based on the sugar sweetened beverages listed below. To get the amount of sugar in the drink, go to the teacher's desk, find the drink labeled in the first column and check how much sugar it has. Lastly, add up all the amounts of sugar in the last row. See the first line for an example.

| DRINK | SERVING OF DRINK | AMOUNT OF SUGAR IN DRINK |
|-----------------------|------------------|--------------------------|
| Chocolate milk | 1 glass | 31 grams |
| Coca-Cola | 1 small can | 25 grams |
| Mango juice | 1 box | 31 grams |
| Gatorade | 1 bottle | 31 grams |
| Capri Sun | 1 pouch | 16 grams |
| Water | 1 glass | 0 grams |
| TOTAL AMOUNT OF SUGAR | | 134 grams |



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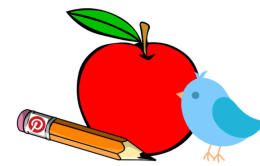
How Much Sugar?

K-2

ANSWER KEY

2) Fill in the chart using the drinks from the previous chart. On the first column, write the drinks with added sugars. On the second column, write drinks with natural sugars that you can drink in place of the drink with added sugars. See the first line for an example.

| Drinks with Added Sugars | Drinks with Natural Sugar |
|--------------------------|---------------------------|
| Chocolate milk | Low-fat milk |
| Coca-Cola | Water |
| Mango juice | Homemade lemonade |
| Gatorade | Water |
| Capri Sun | 100% natural fruit juice |



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