

**Make Your Drinks Count**  
**Lesson 3**  
**4-H Nutrition and Healthy Lifestyles Curriculum**

Written by  
**Kelly Bryant, MS, RD, LD**  
**Extension Nutrition – EFNEP Specialist**  
**Revised October, 2006**

**Goal:**

The goal of this lesson is to increase the likelihood that participants will use the Nutrition Facts label to make wise beverage choices which comply with the Dietary Guidelines for Americans.

**Objectives:**

*The learner will:*

- Assess personal beverage habits and choices.
- Practice calculating the number of teaspoons of sugar from number of calories in regular soda.
- Apply nutrition facts on food labels to help compare and choose beverages.

**Materials Needed:**

- Orange Juice Nutrition Facts Label Visual (Visual 3-A)

**Activity 1: Serving Size Counts**

- 4 cups of different sizes, labeled clearly – 8 oz, 12 oz, 16 oz, 32 oz.
- Serving Size Counts response cards (Visual 3-B)
- Pencils

**Activity 2: How Much Sugar?**

- Different size beverage containers (7):
  - 12 oz can of soda
  - 20 oz bottle of soda
  - 20 oz bottle of sports drink
  - 32 oz cup of soda
  - 32 oz cup of sweet tea
  - 32 oz bottle of sports drink
  - 64 oz container of soda (NOTE: If you cannot find a 64 oz container, consider using two 32 oz cups or a combination of different size containers.
- Beverage Nutrition Labels (Visual 3-C) for different size drinks, cut out and taped to beverage containers
- 7 zipper-sealed sandwich bags
- 7 teaspoon measuring spoons
- 7 plastic containers with 1 ¼ cups of sugar each
- Calculators

**Introduction:**

We all drink different amounts of beverages depending on what we're drinking, don't we? For example, the amount of hot chocolate that a person might drink at one time may be less than the amount of sweet tea that he/she would drink at one time. In our first activity today, we are going to have you think about how much you drink of various beverages at one time.

**Activity 1: Serving Size Counts**

*Instructor: Display the set of cups somewhere in the room that is easy for everyone to see. Give each participant a **Serving Size Counts** response card, pencil, and the **Orange Juice Nutrition Facts Label Visual (Visual 3-A)**.*

*Start 4-H'ers thinking about how much they drink by asking each to identify the size of cup (from the display of cups) which represents the amount that they may drink of each beverage listed (ie. soda, milk, juice, tea, sports drinks, water).*

4-H'ers, think about the types of beverages that you drink.

Listed on your response card are different types of beverages, soda, milk, juice, tea, sports drinks, and water. Next to the beverage name, write the size of the cup (ie. ounces) that represents the amount that you would drink of each beverage.

There are no right or wrong answers and you can use the same size cup more than once. Also, if you wish to make up your own amount, that is fine.

*Allow 2-3 minutes to complete response cards.*

*As a group, discuss which serving sizes for each drink were the most common.*

**Soft Drink Portion Sizes**

The amount that Americans drink of some beverages has changed over the years. For example, the amount of soft drinks that we consume has dramatically increased over the past 20 to 30 years. Did you know that the standard size soft drink 20 to 30 years ago was about 6 ½ to 8 ounces?

Today the standard size is between 12 oz to 20 oz. Americans, especially young teens, drink more soft drinks than ever! Did you know that soft drink consumption has increased by 500% over the past 20 years? This means that if a person drank 1 can of soda (12 oz) per day 20 years ago, a 500% increase would make that about 5 cans of soda per day today, or two large (32 oz) cups.

Surprisingly, this number has dropped slightly among teens within recent years. Any guesses why? Sports drinks and other sweetened fruit drinks have increased. (Actually, only someone who is engaged in strenuous physical activity needs a sports drink for the electrolytes and energy that the drink provides. But many people prefer the taste over sodas).

In this activity, most of us chose different serving sizes depending on the beverage. Were the amounts you chose considered just one serving, or more? How do we know how much a serving is for a beverage? *Answer: look at the Nutrition Facts label.*

*For an example, let's take a look at an orange juice Nutrition Label. Point out the orange juice Nutrition Label on the **Orange Juice Nutrition Facts Label Visual**.*

What is the serving size of the orange juice? *Answer: 12 ounces. Note: A serving on the Nutrition Label will not always be the same as a serving according to the USDA MyPyramid. One serving of 100% fruit juice according to the USDA is  $\frac{1}{2}$  cup, or 4 oz.*

Many bottled beverages contain more than one serving per bottle. How many servings per container are in this orange juice container? *Answer 3.* How do we know the nutritional information if we choose to drink all of it? *Answer: Multiply everything on the label by 3.*

Now that we've discussed how the amount we drink of certain beverages can vary, let's discuss how this affects the calories and nutrients.

Let's take a moment to look at how much sugar and calories are found in many soft drinks, sweet tea and sports drinks.

### **Activity 2: How Much Sugar?**

*Break class into 7 groups. Give each group a beverage container with the corresponding **Beverage Nutrition Label (Visual 3-C)** taped to the side. Have each group calculate the amount of sugar in the whole container.*

***(Note: if you use the Nutrition Labels that are already listed on the beverage containers, the values may differ slightly from the values provided for the containers listed below)***

*Instruct 4-H'ers to use the information on their label to calculate the teaspoons of sugar in their beverage. Once they have calculated the number of teaspoons, have them measure out the teaspoons of sugar into a zipper-sealed sandwich bag.*

To figure out how many teaspoons of sugar are in beverages, you will use the following simple calculation. You might need a calculator and you'll need to round to the nearest whole number.

**There are 4 calories in each gram of sugar. There are 4 grams of sugar in each teaspoon. (4 calories/ 1 gram; 4 grams/1 teaspoon)**

*Give them 5 to 7 minutes to calculate and measure the teaspoons of sugar into the zipper-sealed bags.*

*When the time is up, have each group share the number of calories, number of teaspoons and hold up the sandwich bag of sugar for their beverage. Start out with the smaller sizes and work your way up through the larger sizes.*

*Instructor: calculation example*

*12 oz can of soda = 170 calories*

*Calculation:*

*170 calories/4 calories = 42.5 grams*

*42.5 grams/4 grams = 11 teaspoons*

*Answers:*

**1) Soft Drink (12 oz can)**

*170 calories*

*11 teaspoons*

**2) Soft Drink (20 oz bottle)**

***NOTE: 2.5 servings per container. Students will need to multiply calories on the Nutrition Label to calculate information for whole beverage.***

*272 calories*

*17 teaspoons*

**3) Sports Drink (20 oz bottle)**

***NOTE: 2.5 servings per container. Students will need to multiply calories on the Nutrition Label to calculate information for whole beverage.***

*128 calories*

*8 teaspoons*

**4) Soft Drink (32 oz)***432 calories**27 teaspoons (9 Tbsp)***5) Sweet Tea (32 oz)***272 calories**17 teaspoons***6) Sports Drink (32 oz bottle)**

**NOTE: 4 servings per container. Students will need to multiply calories on the Nutrition Label to calculate information for whole beverage.**

*205 calories**13 teaspoons***7) Soft Drink (64 oz)***864 calories**54 teaspoons (18 Tbsp) more than 1 cup!*

Everyone needs calories to live, so is there anything wrong with getting your calories from these sweetened beverages? What MyPyramid food group do these beverages belong? *Answer: None.* These beverages belong to the “Extras” category. According to our earlier lesson on MyPyramid, why don’t they belong in a food group? What is missing? That’s right, nutrients! These beverages contain little to no nutrients for the calories that they provide. We call these calories “empty calories.” Drinking beverages with empty calories can often crowd out other beverages with more nutrients, such as calcium from milk needed for growing bones, and vitamin C from juice needed to help fight infection and keep you healthy in other ways.

**Nutrients in Beverages**

How do we determine how many nutrients are in a beverage? *(wait for answers)*

That’s right, the Nutrition Facts label.

*Point out the **Orange Juice Nutrition Facts Label Visual**.* The Nutrition Facts label tells us what nutrients and how much of the nutrients are found in the amount of food and drink that you are eating or drinking. *(Point out the nutrients listed on the handout)*

Some nutrients that are listed on the label are nutrients that we need to get less of and others listed are nutrients that we need to get enough of. The Daily Values listed to the right of the nutrients help us know how much of a nutrient is in the

food or drink, which are listed in percents. The “5-20” guide for Daily Values helps us know whether the amount of food or drink we have is low or high in a nutrient. The main key to remember is that 5% or less is low and 20% or more is high.

According to the Nutrition Facts label on the handout, how many calories are in 12 ounces? *Answer: 164.* This is close to the number of calories in a 12 ounce soft drink, which has 177 calories! But, according to the 5-20 Guide, what nutrients are high in this beverage? *Answer: Vitamin C = 204% of Daily Value.*

This beverage offers more nutrients for the calories that it provides compared to many other sweetened beverages. But, we still need to be careful about how much we drink. These calories can add up fast!

**Summary:**

The important thing to remember when choosing a beverage is to *make your drinks count!* Think about how much you’re drinking, how many calories you’re getting, and whether you’re getting any nutrients.

Try to make a point from now on to read labels on beverages and think about what you’re drinking!

Based on what you have learned today, are there any changes that you could make to your beverage choices? Will you start reading the Nutrition Facts label on beverages to find out what you’re drinking?

**OPTIONAL ACTIVITY: *Stir-in the Orange!***

*(This activity is adapted from the USDA curriculum *The Power of Choice*)*

**The purpose of this activity is for students to make four different beverages, evaluate and compare them based on their nutritional value. They will learn to use the Nutrition Facts label to help make wise beverage choices. Students will learn to follow a recipe and improve measurement skills.**

*Activity Modification:*

*If you do not have the students make the beverages in the classroom, there are two suggested modifications: 1) Give groups a copy of each recipe card handout and facilitate the discussion questions included in the lesson plan; or 2) Make the beverages ahead of time and bring them to the classroom for students to taste and evaluate.*

*Procedure:*

*Work in groups of 6-7 people. Each group will make all 4 beverage recipes, but split the group so that half of the group members make two of the four recipes and the other half make the remaining 2 recipes. This will save time. During taste-testing, each group will taste the 4 beverages that their group has made.*

*Activity Tips:*

- To save set-up time and cost, consider having one table with the ingredients/supplies. Have one 4-H'er from each group come to the table to obtain the ingredients as they are needed.*
- Make sure that food coloring bottles are squeezable and have a dropper lid. The kind sold individually as one color may not. A box sold as 4 colors in one may be the best option.*
- Buy orange juice in a carton rather than smaller plastic containers or frozen concentrate. The taste will be more acceptable by 4-H'ers from the carton.*

**Each Group should have the following:**

- A copy of each of the 4 orange beverage recipe handouts (Visuals 3-D1, 3-D2, 3-D3, 3-D4)
- 4 16-ounce clear cups
- 24 oz club soda (cold)
- 1/2 cup of sugar
- 6 packets of sugar substitute –aspartame (Equal) or sucralose (Splenda)
- 1 bottle of red food coloring
- 1 bottle of yellow food coloring
- 2 packets powdered orange flavoring (“Kool-Aid®” or other powered fruit drink –no sugar added)
- 1 snack size plastic bag of 1 teaspoon salt
- 12-oz (1 ½ cup) cold water
- 1 cup 100% orange juice
- 1 cup diet lemon-lime soda
- 2 2-cup liquid measuring cups
- 2 sets of measuring spoons
- 2 large spoons to stir
- Bathroom cups for taste-testing
- Paper towels

*Divide into groups of 6 to 7, giving each group all 4 recipes for the orange drinks. Each group will make all 4 drinks in 16-ounce clear cups. Divide up each group so that half of the group makes two of the recipes and the other half makes the remaining two recipes. Remind the 4-H'ers not to taste the drinks until you tell them to at the end.*

**Recipe 1: Orange Soda (Visual 3-D1)**

12 ounces club soda  
11 teaspoons sugar  
2 drops red food coloring  
3 drops yellow food coloring  
½ teaspoon powdered orange flavoring

**Recipe 2: Low-Calorie Orange Soda (Visual 3-D2)**

12 ounces club soda  
6 packets of sugar substitute  
2 drops red food coloring  
3 drops yellow food coloring  
½ teaspoon powdered orange flavoring.



**Recipe 3: Sports Drink with 10% Orange Juice (Visual 3-D3)**

1 ounce (2 Tablespoons) 100% orange juice  
11 oz (1 ¼ cup + 2 Tablespoons) cold water  
4 teaspoons sugar  
½ teaspoon orange powdered flavoring  
Pinch of salt (very small amount)

**Recipe 4: Orange Juice Spritzer (Visual 3-D4)**

6 oz 100% orange juice  
6 oz diet lemon-lime soda

**Orange Drink Taste-Testing:**

*Allow 4-H'ers from each group to taste the drinks by pouring them into small bathroom cups. After taste-testing, ask the group if any of the drinks tasted differently than they thought they would. Did they like any of them?*

**Suggested Discussion Questions:**

- 1) What drinks do you think you have just made? *Allow them to guess. Now it is time to reveal the names of the drinks. Read out the names of each recipe.*
- 2) What do these drinks have in common? What makes them different?
- 3) How do the calories and nutrients from the Orange Juice Spritzer compare to the soda and sports drink? *Have them check the Nutrition Facts labels listed on the recipes for each drink.*
- 4) What do you think about the sugar in one 12-ounce sports drink verses the nutrients that it provides? What if you were to drink a 32 oz bottle of the sports drink?

# 100% Orange Juice

## Nutrition Facts

Serving Size 12 FL OZ (372g)

Servings Per Container 3

### Amount Per Serving

**Calories** 164      Calories from Fat 8

### % Daily Value\*

**Total Fat** 1g      2%

Saturated Fat 0g      1%

Trans Fat

**Cholesterol** 0mg      0%

**Sodium** 4mg      0%

**Total Carbohydrate** 37g      12%

Dietary Fiber 1g      3%

Sugars

**Protein** 3g

Vitamin A 6% • Vitamin C 204%

Calcium 4% • 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.

NutritionData.com



The “5-20”  
Guide  
for % Daily  
Values (%DV)

Low in  
Nutrient  $\leq 5\%$

High in  
Nutrient  $\geq 20\%$



Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

Soda \_\_\_\_\_  
Milk \_\_\_\_\_  
Juice \_\_\_\_\_  
Tea \_\_\_\_\_  
Sports Drink \_\_\_\_\_  
Water \_\_\_\_\_

12 oz Can of Soda

Nutrition Facts	
Serving Size 12 FL OZ (44g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 170	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 44g	15%
Dietary Fiber 0g	0%
Sugars 44g	
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	
NutritionData.com	

20 Bottle of Soda

Nutrition Facts	
Serving Size 8 FL OZ (240g)	
Servings Per Container 2.5	
Amount Per Serving	
<b>Calories</b> 109	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 27g	9%
Dietary Fiber 0g	0%
Sugars 27g	
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	
NutritionData.com	

32 oz (Large) Cup of Soda

Nutrition Facts	
Serving Size 32 OZ (960g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 432	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 108g	36%
Dietary Fiber 0g	0%
Sugars 108g	
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	
NutritionData.com	

64 oz (Extra Large) Cup of Soda

Nutrition Facts	
Serving Size 64 OZ (1920g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 864	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 216g	72%
Dietary Fiber 0g	0%
Sugars 216g	
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	
NutritionData.com	

20 oz Bottle Sports Drink

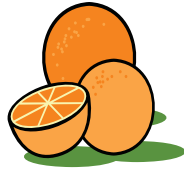
Nutrition Facts	
Serving Size 8 FL OZ (240g)	
Servings Per Container 2.5	
Amount Per Serving	
<b>Calories</b> 51	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 13g	4%
Dietary Fiber 0g	0%
Sugars 13g	
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	
NutritionData.com	

32 oz Bottle Sports Drink

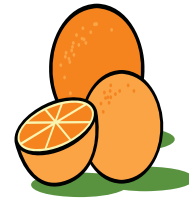
Nutrition Facts	
Serving Size 8 FL OZ (240g)	
Servings Per Container 4	
Amount Per Serving	
<b>Calories</b> 51	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 13g	4%
Dietary Fiber 0g	0%
Sugars 13g	
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	
NutritionData.com	

32 oz (Large) Cup of Sweet Tea

Nutrition Facts	
Serving Size 32 FL OZ (960g)	
Servings Per Container 1	
Amount Per Serving	
<b>Calories</b> 272	Calories from Fat 0
% Daily Value*	
<b>Total Fat</b> 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
<b>Cholesterol</b> 0mg	0%
<b>Sodium</b> 0mg	0%
<b>Total Carbohydrate</b> 68g	23%
Dietary Fiber 0g	0%
Sugars 68g	
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	
NutritionData.com	



# Recipe 1



- 12 ounces club soda
- 11 teaspoons sugar
- 2 drops red food coloring
- 3 drops yellow food coloring
- 1/2 teaspoon orange powdered flavoring

Directions:

Combine each ingredient into one 16-ounce clear cup.  
Stir well.



## Nutrition Facts

Serving Size 12 FL OZ (44g)

Servings Per Container 1

**Amount Per Serving**

**Calories** 170      Calories from Fat 0

**% Daily Value\***

**Total Fat** 0g      0%

Saturated Fat 0g      0%

Trans Fat 0g

**Cholesterol** 0mg      0%

**Sodium** 0mg      0%

**Total Carbohydrate** 44g      15%

Dietary Fiber 0g      0%

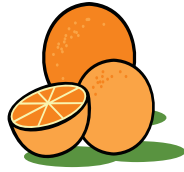
Sugars 44g

**Protein** 0g

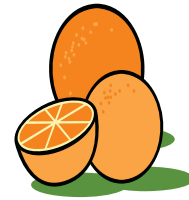
Vitamin A 0% • Vitamin C 0%

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.



# Recipe 2



- 12 ounces club soda
- 6 packets of sugar substitute
- 2 drops red food coloring
- 3 drops yellow food coloring
- 1/2 teaspoon orange powdered flavoring

Directions:

Combine each ingredient into one 16-ounce clear cup.  
Stir well.



## Nutrition Facts

Serving Size 12 FL OZ (6g)

Servings Per Container 1

**Amount Per Serving**

**Calories** 22      Calories from Fat 0

**% Daily Value\***

**Total Fat** 0g      0%

Saturated Fat 0g      0%

Trans Fat 0g

**Cholesterol** 0mg      0%

**Sodium** 0mg      0%

**Total Carbohydrate** 5g      2%

Dietary Fiber 0g      0%

Sugars 5g

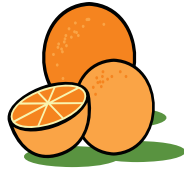
**Protein** 0g

Vitamin A 0% • Vitamin C 0%

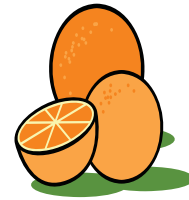
Calcium 0% • Iron 0%

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

NutritionData.com



# Recipe 3



1 ounce (2 Tablespoons) orange juice  
 11 oz (1 1/4 cup + 2 Tablespoons) cold water  
 4 teaspoons sugar  
 1/2 teaspoon orange powered flavoring  
 Pinch of salt (very small amount)

Directions:

Combine each ingredient into one 16-ounce clear cup.  
 Stir well.



## Nutrition Facts

Serving Size 12 FL OZ (47g)

Servings Per Container 3

**Amount Per Serving**

**Calories** 79      Calories from Fat 0

**% Daily Value\***

**Total Fat** 0g      0%

Saturated Fat 0g      0%

Trans Fat 0g

**Cholesterol** 0mg      0%

**Sodium** 98mg      4%

**Total Carbohydrate** 20g      7%

Dietary Fiber 0g      0%

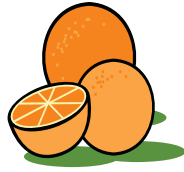
Sugars 19g

**Protein** 0g

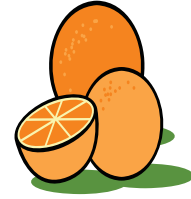
Vitamin A 0% • Vitamin C 8%

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.



# Recipe 4



6 oz 100% orange juice  
6 oz diet lemon-lime soda

**Directions:**

Combine each ingredient in one 16-ounce clear cup. Stir well.



## Nutrition Facts

Serving Size 12 FL OZ (363g)

Servings Per Container 1

**Amount Per Serving**

**Calories** 82      Calories from Fat 4

**% Daily Value\***

**Total Fat** 1g      1%

Saturated Fat 0g      0%

Trans Fat 0g

**Cholesterol** 0mg      0%

**Sodium** 12mg      1%

**Total Carbohydrate** 19g      6%

Dietary Fiber 0g      1%

Sugars 0g

**Protein** 2g

Vitamin A 3% • Vitamin C 102%

Calcium 3% • Iron 2%

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your calorie needs.

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## Make Your Drinks Count Background Information

### Sweetened Beverage Trends

- Soft drinks make up the largest source of added sugars in the American diet.
- Soft drinks make up about **1/3 (33%)** of total added sugars, especially among adolescents, with males reaching **41%** of total added sugars from soft drinks (or 8% of total energy).
- Other beverages make up **17%** of added sugars. These include sweet tea, sports drinks, etc.
- Fruit drinks (not 100% fruit juice) make up **10%** of total added sugars.

Sweetened beverages such as soft drinks, sweet tea, some sugar-sweetened fruit drinks and sports drinks contain **empty calories**. All the calories from sodas, sweet tea and sports drinks come from caloric sweeteners, and few, if any, that your body needs. Also, these beverages might crowd out other beverages such as milk (calcium) also vitamin C from fruit juices.

These extra calories can add up. Research has shown that **overweight** children and adolescents consume more calories from soft drinks and sweetened beverages than lean children. (Troisno. Am J Clin Nutr 2000; 72:1343-1353S.)

Within recent years soft drink consumption has **dramatically increased**.

- Over the past 20 years, soft drink consumption has **increased by 500%**. This means that if a person drank 1 can of soda (12 oz) per day 20 years ago, a 500% increase would make that about 5 cans of soda per day today, or two large (32 oz) cups.
- Surprisingly, this number has dropped slightly among teens within recent years due to sports drinks and other sweetened fruit drinks which have increased.

The majority of fast food restaurants and convenience store offer customers the option of increasing the size of their soft drink, or “super-sizing,” for just a few pennies more. With these deals it can be easy for someone to overlook the number of extra calories.

- A **42 ounce Super-Sized (Extra-large) soft drink** contains **410 calories**. This equals about **20% of a person’s daily calorie needs**.

Soft drinks and other sweetened beverages, such as sweet tea and fruit drinks, are **NOT “bad” beverages** and do not need to be avoided entirely. Instead, these drinks should be consumed less frequently than water, milk, and 100% juice. Also, 4-H’ers should make a habit of **reading the Nutrition label** to make wise beverage choices.

- Instead of ordering such a large soft drink, cut back on extra calories by ordering water, diet soft drinks, unsweetened tea or ordering a smaller regular soft drink. This will help reduce calories in the diet.
- Encourage 4-H'ers to choose more often beverages that are a good source of calcium (Milk) or vitamin C (100% fruit juice). The “5-20” **guide for nutrients** on food labels can help make healthy beverage choices.
- The “5-20” guide for nutrients states that a Daily Value (DV) for a nutrient of 5% or less is low and 20% or more is high.

### **Sugar in Soft Drinks and Other Sweetened Beverages**

To figure out how much sugar is in soft drinks, sweet tea and sports drinks, there is an easy calculation to determine the number of teaspoons of sugar from the number of calories.

**There are 4 calories in each gram of sugar. There are 4 grams of sugar in each teaspoon.**

*Example: 12 oz can of soda = 170 calories:*

*Calculation:*

*170 calories/4 calories = 42.5 grams*

*42.5 grams/4 grams = 11 teaspoons*

### **Amount of sugar in the following beverages:**

(3 teaspoons = 1 Tablespoon)

#### **Soft Drinks:**

- 1 can (12 oz) = 11 teaspoons
- 20 oz bottle = 17 teaspoons
- 32 oz = 27 teaspoons (9 Tbsp)
- 64 oz = 53 tsp (18 Tbsp) more than 1 cup!

#### **Sweet Tea:**

- 12 oz = 7 teaspoons
- 32 oz = 17 teaspoons

#### **Sports Drinks:**

- 20 oz = 8 teaspoons
- 32 oz = 15 teaspoons

### **Fruit Juice verse Fruit Drinks**

When choosing a juice, look for 100% fruit juice, which counts towards servings from the Fruit Group. “Fruit drinks” or “fruit beverages” contain added sugars with little to no fruit juice. These beverages do not count towards servings from the Fruit Group.

- Some fruit drinks have vitamins, such as vitamin C, or other nutrients added to them. But, even with added vitamins, they lack other important nutrients,

found only in 100% fruit juice. These nutrients include potassium, phosphorus, zinc, folate, B-vitamins, and important phytonutrients.

- One serving of 100% fruit juice is 1/2 cup. Ideally, no more than 1 cup of your fruit servings (a total of 2 cups on a 2,000 calorie diet) should come from juice because it doesn't have the fiber found in whole fruit.
- Calcium-fortified orange juice is an excellent choice.

### **Sports Drink Consumption among Youth**

Unless a child or adolescent is engaged in strenuous physical activity, he or she does not need a sports drink for the electrolytes and energy that the drink provides. But many people, especially teens, prefer the taste over sodas. They should beware that sports drinks have calories that can add up quickly. A typical sports drink has about **60 to 75 calories per 8 oz (1 cup)** (a soda has about 100 calories per cup). For someone who drinks the large 32 oz sports drink bottle, this can quickly add up to about 300 calories.

### **Energy Drinks and Caffeine Consumption**

Energy drinks are popular drinks among youth. Energy drinks are sold in small and large soft drink cans with attention-getting marketing slogans claiming to boost your energy, peak your performance, and stimulate your brain. The ingredients include a potent concoction of "metabolic boosters" and herbal extracts like sugar, caffeine, guarana, etc.

These drinks can give you a boost of energy, or at least a feeling of alertness, due primarily to the high level of caffeine. Even one small can of some energy drinks can have as much caffeine as is found in 1 to 2 cups of brewed coffee, about 80 mg to 200 mg. The larger cans can be two to three times this amount.

Currently no limitations have been placed on the consumption of caffeinated drinks by children. Caffeine is a mild stimulant that can be tolerated by individuals in varying degrees. Consuming large amount of caffeine daily may have potential negative effects among youth (and adults). These include a daily dependence upon caffeine, decreased ability to sleep or sleep quality, and impaired bone development – due to the loss of calcium in the urine.

Large quantities are equal to the amount in more than:

**4 cups coffee; 8 cups of tea and/or caffeinated soft drinks; 1 to 2 small cans of energy drinks (most types).**

**Guarana and other ingredients:** Guarana is a stimulant found in many soft drinks and should be treated with the same precautions as caffeine. Many energy drinks contain herbs, B vitamins, taurine, inositol, or other compounds that are suggested to improve performance. None of these substances, however, have been proven to boost performance.