



Eat Right – What Does That Mean? (🌈 A Physical Health Story)
(5th Grade – 10-11 yrs.)
Experiment: That's A LOT of Sugar!



STORY CONNECTION – SLIDE 13 (Approx Time: 35-40 mins)

One of the biggest problems with eating right is that people who make and sell food **WANT** you to eat more than you need to, and they want you to eat foods that may not be giving you all the right nutrients. This is because they want to make money. So, they make food taste delicious and give you more than your body or brain needs to stay alive. Remember, your brain – while it can “tell” you what you need in terms of energy and nutrients – it likes to be happy. Delicious foods make your brain happy, so this is a time when you need to be helping your brain to help you eat right.

Materials needed:

- Chart paper
- Markers
- Video of sugar experiment link: (optional)
 - <https://www.youtube.com/watch?v=F10EyGwd57M> (4:09)
- Equipment to show online video (optional)
- How Much Sugar is in a Can of Soda? Worksheet (included below) or paper
- Can of regular soda
- Sugar
- Teaspoon
- Bowl
- Images of various beverages (included below- optional extension activity)

Preparation needed:

- Determine if you can physically do the demonstration/experiment
 - If so, determine if you will demo for student(s) or if material is available to do it in small groups.
 - If the experiment cannot be done due to online learning or lack of materials, a video has been included to show to student(s) so they can see the same information.
 - The video can also be shown to student(s) who are conducting the experiment.
- Determine if student(s) will use included experiment worksheet
 - If so, print 1 per student.
 - If not, have digital copy readily available for student(s) to see the needed information to copy.

Instructions:

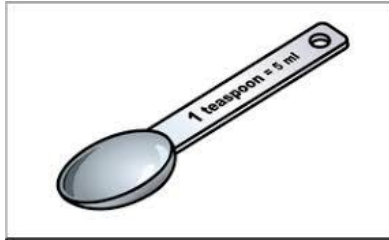
1. In this activity, student(s) will see exactly how much sugar is in a can of soda.
2. Share with the student(s) that according to the American Heart Association,

- the Nutrition Facts on the food label should be read to understand how much added sugar is in a food.
 - Total sugars include both added sugars and natural sugars.
 - Added sugars are the ones you want to limit.
 - Naturally occurring sugars are found in foods like milk (lactose) and fruit (fructose).
 - recommends children and teens consume less than 25 grams, or 6 teaspoons, of added sugar per day.
3. Ask student(s) if they have ever had a can of soda. Allow student(s) to share their favorite types of soda.
 4. Next, make predictions as to how many teaspoons of sugar they think is in one can of soda.
 - Show the student(s) the teaspoon so they have a frame of reference for the amount.
 - Record the predictions on chart paper or the board.
 5. Ask the student(s) how they can find out exactly how much sugar (and other ingredients) is in the soda.
 - Hopefully, they will say the nutritional facts label.
 6. Using the “How Much Sugar is in a Can of Soda?” Worksheet included below, go through each step.
 - Have student(s) come up to measure out the sugar and add it to the bowl.
 - This part can also be done in small groups if the materials are available, and the facilitator feels comfortable doing so.

NOTE: If not doing the experiment, this is when the video could be shown to the student(s). Remember, the video can be shown to the student(s) doing the experiment for added excitement and engagement.
 7. Discuss each section of the worksheet as it is completed during the experiment.
 - Make sure to go back and look at the predictions the student(s) made about the sugar in soda prior to the experiment.
 8. Optional Extension: Use the images of the beverages below to complete one or both of the following:
 - Sort the beverages into “more sugar than soda” and “less sugar than soda.”
 - Rank the beverages in order from the least amount of sugar to the most.
 9. In closing, reiterate one more time that all food will give them energy. However, to keep their body and brain healthy, they need more than just energy. Manufacturers often add many unnecessary things to foods to make them taste good. Great tasting foods make them feel happy, but they may be more than they NEED. It is their job to make sure they are making choices that are going to keep both their brain and their body happy AND healthy.

How Much Sugar is in a Can of Soda?

Name: _____



Materials:

- 12 ounce can of soda
- Teaspoon
- Sugar
- Bowl

1. Look at the nutritional facts label on the can. How many grams of sugar are in the can of soda?

_____ grams of sugar in one can of soda

2. One teaspoon of sugar is approximately 4 grams. About how many teaspoons of sugar are in the can of soda? Show your work.

_____ teaspoons of sugar in one can of soda

3. Measure out that number of teaspoons into the bowl.

4. Record your thoughts and observations here.

5. Are you surprised to see how much sugar is in the can of soda? Why or why not?

6. How do you think that amount of sugar would make you feel if you just ate it?

7. The American Heart Association recommends that children have less than 25 grams of sugar per day. Is drinking soda a healthy choice? Why or why not?

8. What are some other drinks that you think have a lot of sugar in them other than soda?

9. What are some healthier drink choices when it comes to reducing the amount of sugar?

Extension Activities: Beverage Nutrition Facts

**All sugar amounts are based on 12 ounces



Nutrition Facts	
About 7 Servings per container	
Serving Size 8 fl oz (240 mL)	
Amount Per Serving	
	Calories 110
% Daily Value	
Total Fat 0g	0%
Sodium 15mg	1%
Total Carb. 27g	10%
Total Sugars 24g	
Incl. 0g Added Sugars 0%	
Protein 0g	
Calcium 20mg	2%
Potassium 450mg	10%
Vitamin C	80%
Thiamin	15%
Niacin	2%
Vitamin B ₆	4%
Folate	15%
Magnesium	6%

Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron, and potassium.

12 ounces = 36 grams of sugar



11% LEMON JUICE

Nutrition Facts	
About 7 servings per container	
Serving Size 8 fl oz (240 mL)	
Amount Per Serving	
	Calories 120
% Daily Value	
Total Fat 0g	0%
Sodium 15mg	1%
Total Carbohydrate 30g	11%
Total Sugars 28g	
Includes 28g Added Sugars 55%	
Protein 0g	

Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron and potassium.

12 ounces = 32 grams of sugar



Nutrition Facts

About 11 servings per container
Serving size 12 FLOZ (360mL)

Amount per serving

Calories 110

% Daily Value

Total Fat 0g **0%**

Cholesterol 0mg **0%**

Sodium 3mg **0%**

Total Carbohydrate 27g **10%**

Dietary Fiber 1g **3%**

Total Sugars 26g

Incl. 26g Added Sugars **52%**

Protein 0g

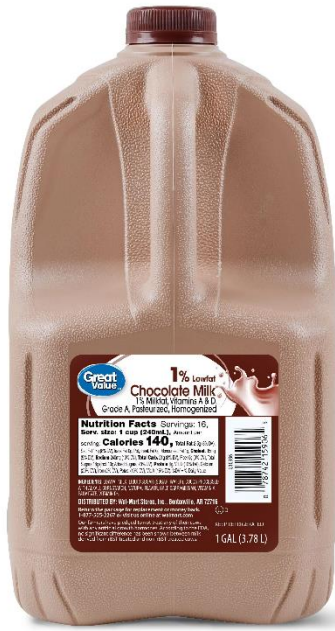
Not a significant source of Vitamin D,
 Calcium, Iron or Potassium

12 ounces = 26 grams of sugar



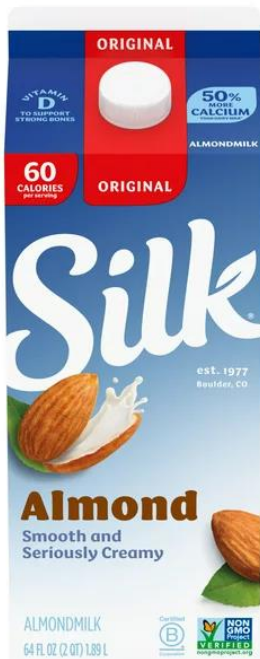
Nutrition Facts Servings: 16, **Serv. size: 1 cup (236mL)**,
 Amount per serving: **Calories 160**, **Total Fat** 8g (10% DV),
 Sat. Fat 4.5g (23% DV), Trans Fat 0g, **Cholest.** 30mg (10% DV),
Sodium 85mg (4% DV), **Total Carb.** 11g (4% DV), Fiber 0g (0% DV),
 Total Sugars 10g (Incl. 0g Added Sugars, 0% DV), **Protein** 8g, Vit. D
 (10% DV) Calcium (25% DV), Iron (0% DV), Potas. (8% DV).

12 ounces = 15 grams of sugar



Nutrition Facts Servings: 16,
Serv. size: 1 cup (240mL), Amount per
 serving: **Calories 140**, **Total Fat** 2.5g (3% DV),
 Sat. Fat 1.5g (8% DV), Trans Fat 0g, Polyunsat. Fat 0g, Monounsat. Fat 1g, **Cholest.** 15mg
 (5% DV), **Sodium** 240mg (10% DV), **Total Carb.** 21g (8% DV), Fiber 0g (0% DV), Total
 Sugars 18g (Incl. 10g Added Sugars, 20% DV), **Protein** 8g, Vit. D (10% DV), Calcium
 (20% DV), Iron (2% DV), Potas. (10% DV), Vit. A (15% DV). %DV = % Daily Value

12 ounces = 27 grams of sugar



Nutrition Facts
 About 8 servings per container
Serving size 1 cup (240mL)

Amount per serving	
Calories	60
% Daily Value*	
Total Fat 2.5g	3%
Saturated Fat 0g	0%
Trans Fat 0g	
Polyunsaturated Fat 0.5g	
Monounsaturated Fat 1.5g	
Cholesterol 0mg	0%
Sodium 150mg	7%
Total Carbohydrate 8g	3%
Dietary Fiber 0g	0%
Total Sugars 7g	
Includes 7g Added Sugars	14%
Protein 1g	
Vitamin D 2mcg 10%	Calcium 470mg 35%
Iron 0.5mg 2%	Potassium 0mg 0%
Vitamin A 140mcg 15%	Vitamin E 4mg 25%
Magnesium 15mg 2%	

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

12 ounces = 10.5 grams of sugar



CONTAINS 3% JUICE
CAFFEINE FREE • GLUTEN FREE

Nutrition Facts

16 servings per container
Serving size 8 fl oz (240mL)

Amount per serving	
Calories	40
	% Daily Value
Total Fat 0g	0%
Sodium 105mg	5%
Total Carbohydrate 11g	4%
Total Sugars 11g	
Includes 10g Added Sugars 20%	
Protein 0g	
Vitamin C 18mg	20%

Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium, iron, and potassium.

WATER, HIGH FRUCTOSE CORN SYRUP, AND LESS THAN 2% OF: CONCENTRATED JUICES (APPLE, CLARIFIED PINEAPPLE, PASSIONFRUIT, ORANGE), FRUIT PUREES (APRICOT, PAPAYA, GUAVA), ASCORBIC ACID (VITAMIN C), CITRIC ACID, NATURAL AND ARTIFICIAL FLAVORS, PECTIN, ACACIA GUM, ESTER GUM, RED 40, BLUE 1, SUCRALOSE, POTASSIUM SORBATE AND SODIUM HEXAMETAPHOSPHATE (PRESERVATIVES).

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12 ounces = 16.5 grams of sugar



Nutrition Facts

About 2.5 serving per container
Serving size 12 fl oz (360mL)

	Per serving	Per container
Calories	80	190
	% Daily Value	% Daily Value
Total Fat	0g 0%	0g 0%
Sodium	160mg 7%	380mg 17%
Total Carb.	22g 8%	51g 18%
Total Sugars	21g	48g
Incl. Added Sugars	21g 41%	48g 96%
Protein	0g	0g
Potassium	50mg 0%	110mg 2%

Not significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium and iron.

12 ounces = 21 grams of sugar



Nutrition Facts	
Serving size	1 Bottle
Amount per serving	
Calories	120
	% DV*
Total Fat 0g	0%
Sodium 40mg	2%
Total Carbohydrate 28g	10%
Total Sugars 28g	
Includes 26g Added Sugars 52%	
Protein 0g	
Potassium 700mg	15%
Vitamin A 630mcg	70%
Vitamin C 63mg	70%
Vitamin E 10.5mg	70%
Niacin 32mg	200%
Vitamin B ₆ 3.4mg	200%
Folate 800mcg DFE	200%
Vitamin B ₁₂ 4.8mcg	200%
Pantothenic Acid 10mg	200%
Magnesium 70mg	15%
Zinc 7.7mg	70%
Not a significant source of saturated fat, trans fat, cholesterol, dietary fiber, vitamin D, calcium and iron.	
*% DV = % Daily Value	

12 ounces = 21 grams of sugar



Nutrition Facts Serving Size: 1 bottle (13.7 fl oz), Amount Per Serving: **Calories** 290, Calories from Fat 40, **Total Fat** 4.5g (7% DV), Saturated Fat 3g (15% DV), *Trans* Fat 0g, **Cholesterol** 20mg (7% DV), **Sodium** 150mg (6% DV), **Total Carbohydrate** 53g (18% DV), Dietary Fiber 0g (0% DV), Sugars 46g, **Protein** 9g (18% DV), Vitamin A (0% DV), Vitamin C (0% DV), Calcium (35% DV), Iron (2% DV). Percent Daily Values (DV) are based on a 2,000 calorie diet.

CONTAINS: BREWED STARBUCKS® COFFEE (WATER, COFFEE), REDUCED-FAT MILK, SUGAR, MALTODEXTRIN, PECTIN, NATURAL FLAVOR.

12 ounces = 41 grams of sugar



Nutrition Facts	
Serving size 12 Fl Oz (360mL) Multi Serve	
Amount per serving	
Calories	0
	% DV*
Total Fat 0g	0%
Sodium 0mg	0%
Total Carb. 0g	0%
Protein 0g	
NOT A SIGNIFICANT SOURCE OF SAT. FAT, TRANS FAT, CHOLEST., FIBER, TOTAL SUGARS, ADDED SUGARS, VIT. D, CALCIUM, IRON AND POTAS.	
* % DV = % Daily Value	

12 ounces = 0 grams of sugar

Extension Activity: Beverage and nutritional facts image credit: walmart.com

Worksheet Image Credit:

Sugar Image Credit: <https://encrypted->

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Soda Can Image Credit: <https://encrypted->

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