

SUGAR SHOCKERS

In these activities, students will learn why water is the best choice when they want to quench their thirst.



**American
Heart
Association®**

life is why™

ACTIVITY ONE

♥ Materials:

can of regular soda

clear cup

measuring spoons

sugar or sand (at least 10 teaspoons)

3 boutique-size tissue boxes

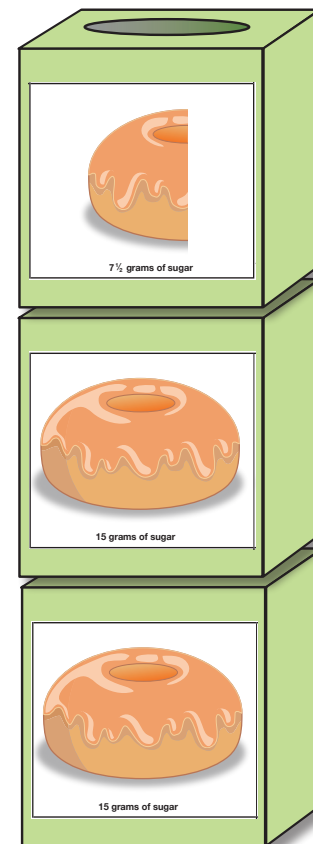
tape

doughnut cards, cut apart (see pattern page)

SETUP:

Tape each doughnut card to a separate box so the card is self-standing.

1. Display the soda. Ask one or more students to help you measure out in a clear cup the amount of sugar in the soda, which is approximately $9\frac{1}{3}$ teaspoons, or 39 grams.
2. One at a time, stack atop each other the three boxes that show the doughnut cards.
3. Explain to students that sodas have lots of added sugar. In fact, just one can of regular soda has more sugar than $2\frac{1}{2}$ glazed doughnuts!
4. To help students get a picture of how much extra sugar they consume in one week if they drink just one regular soda a day, ask one student to hold her hands overhead in a doughnut shape. Continue until 18 students are “doing the doughnut.” That’s $1\frac{1}{2}$ dozen doughnuts!



ACTIVITY TWO

♥ Materials:

chart paper and marker

chocolate candy bar cards (see pattern pages)

cup labeled “Daily Limit = 24 grams”

6 additional cups

20-oz. bottle of each of these regular sodas: regular cola, lemon-lime flavored, orange flavored, cherry flavored, citrus flavored

sugar or sand (at least 19 teaspoons)

measuring spoons

optional: 20-oz. bottles of fruit flavored vitamin water, energy drink, and lemonade

Ask students to name some of their favorite beverages. Then ask if they know the daily recommended limit for added sugars for men (in grams). After students make several guesses, write the amount, 36 grams, on chart paper. Explain that this is equivalent to about 9 teaspoons of sugar, a little less than the amount measured into the cup in Activity One. Further explain that soda and other sweetened drinks may be detrimental to their health because the extra sugar can cause weight gain and tooth decay. In addition, soda has no nutrients and contains added chemicals. Remind students that sugar can be found in all kinds of foods, not just in beverages. For example, even cheeseburgers have some sugar! Then explain that students are going to look at the amount of sugar in some of their favorite beverages. Follow the steps on the next page.

ACTIVITY TWO (CONTINUED)

1. Display a chocolate candy bar card. Ask students to guess how many grams of sugar are in one bar. After several guesses, tell students the bar has 24 grams—equal to about six teaspoons—of sugar, which is the daily sugar limit recommended for women. (The daily added sugars limit recommended for men is slightly higher, at 36 grams.) Then put the card in the cup labeled “Daily Limit = 24 grams”.
2. Display the 20-ounce bottle of cola beside an empty cup. Dramatically put $2\frac{1}{2}$ chocolate candy bar cards in the cup to show that this drink has the same amount of sugar (65 g) as $2\frac{1}{2}$ candy bars. Have students compare this cup with the “Daily Limit” cup.
3. Repeat Step 2 with the other beverages as follows:
 - lemon-lime soda = 64 g = $2\frac{1}{2}$ chocolate candy bar cards (more than the daily recommendation)
 - orange flavored soda = 74 g = 3 chocolate candy bar cards (more than the daily recommendation)
 - cherry flavored soda = 70 g = 3 chocolate candy bar cards (more than the daily recommendation)
 - citrus flavored soda = 78 g = $3\frac{1}{4}$ chocolate candy bar cards (more than the daily recommendation)
4. Ask students which beverages are equivalent to or exceed the daily recommendation (all of them). What happens if you drink more than one soda a day? To show students how much sugar this would look like, measure $18\frac{1}{2}$ teaspoons of sugar (or sand) in an empty cup to show the amount of sugar in just one bottle of orange flavored soda. That’s a lot!
5. If desired, explain that soda isn’t the only beverage that’s packed with sugar. Repeat Step 2 with these beverages:
 - fruit flavored “vitamin” water = 31 g = 1 chocolate candy bar card (more than the total daily recommendation)
 - energy drink = 52 g = 2 chocolate candy bar cards (more than the daily recommendation)
 - lemonade = 67 g = 3 chocolate candy bar cards (more than the daily recommendation)



ACTIVITY THREE

♥ Materials:

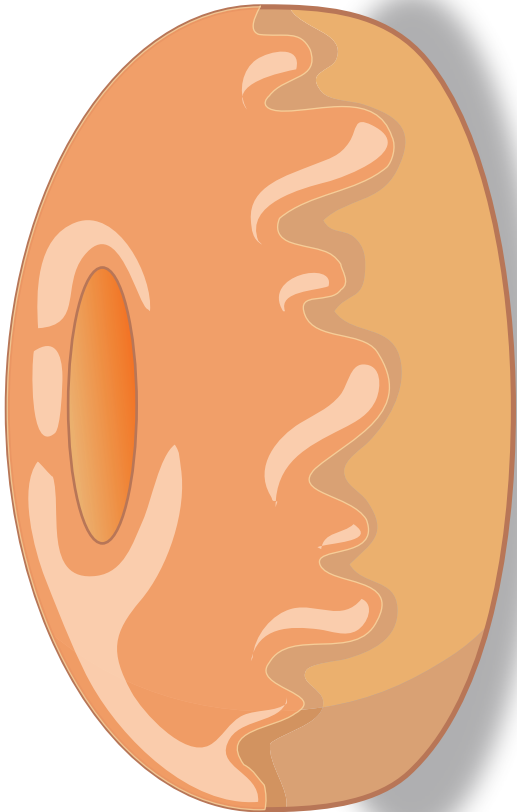
4 playground cones numbered 1 to 4
student supply of “YUCK!” cards, cut apart (see pattern page)
bag

This activity educates students about the chemicals found in sodas.

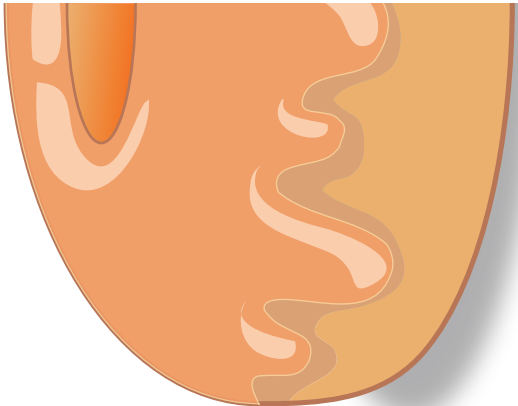
1. Mark off the four corners of a large square area using the four playground cones.
2. Designate one student to be “It.” This player sits in the middle of the square and closes her eyes.
3. Direct each of the remaining students to quietly walk and stand in any corner of their choice.
4. The “It” student counts to ten and then calls out one of the numbers. Each student who is standing in that corner pulls a YUCK card from the bag and reads it aloud. These students then sit down in the center of the square with It.
5. The student who is It closes her eyes and counts to ten again while the remaining players move to different corners.
6. The game continues until only one person is left standing.
7. At the end of the game, discuss with students the items on the YUCK cards. Point out that each time a student drinks a soda, he drinks these ingredients.
8. Ask students to visualize the amount of each ingredient multiplied by 365 (one soda per day). Then ask them to share which item grosses them out the most or is the most surprising, and talk about healthier beverages for students to grab when they are thirsty, such as water and fat-free or low-fat milk.



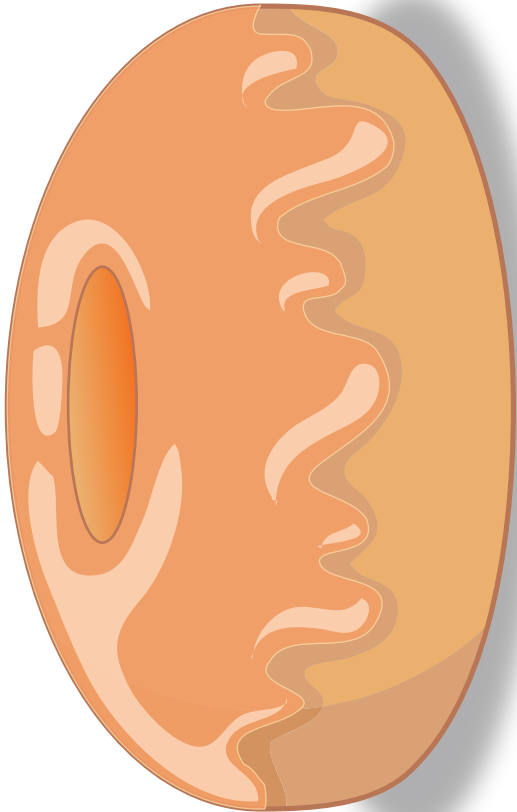
For a fun (and gross!) fact to send home with students, tell them that a can of regular cola has proven to be a great way to clean a toilet! Just pour the can into the toilet bowl. Then, after an hour, wipe the toilet clean. Now, do you really want to drink something that can make a dirty toilet shine?



15 grams of sugar



7 ½ grams of sugar



15 grams of sugar

YUCK!



Soda contains **potassium benzoate**, an ingredient used in fireworks to make them “whistle.”

YUCK!



Soda contains **potassium benzoate**, an ingredient used in fireworks to make them “whistle.”

YUCK!



Some sodas contain **brominated vegetable oil**, a chemical that is used as a flame retardant.

YUCK!



Some sodas contain **brominated vegetable oil**, a chemical that is used as a flame retardant.

YUCK!



Soda includes **orthophosphoric acid**, an ingredient in hair coloring, toilet bowl cleaner, and dry cat and dog foods.

YUCK!



Soda includes **orthophosphoric acid**, an ingredient in hair coloring, toilet bowl cleaner, and dry cat and dog foods.

YUCK!



Soda includes **sodium benzoate**, an ingredient in shampoo, hairspray, and furniture polish.

YUCK!



Soda includes **sodium benzoate**, an ingredient in shampoo, hairspray, and furniture polish.

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