Sugar Savvy Students - Three Days of Activities (Grades 6-8)

Goal: Decrease intake of foods and drinks with added sugars among your students

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DAY 1

Objectives: Students will be able to:

-Define "natural sugar" and "added sugar"
-Gain basic knowledge of carbohydrates, sugar, and high fructose corn syrup
-Increase awareness about the amount of soda they consume each year
-Identify how much money they spend on soda each year

Materials:

✓ Worksheet 1 **"Sweet Ain't Cheap"** (1 per student)

1. ***Review the following with your students and engage in a discussion about natural and added sugar:***
   - "Natural sugar" means that a food naturally contains sugar, along with vitamins, minerals, and fiber. Foods like fruits, vegetables, and diary products contain natural sugar.
   - "Added sugar" means that sugar was added to the food, and does not occur naturally. Many processed foods, like sweets and soft drinks, have added sugar. These foods are high in sugar but low in vitamins, minerals, fiber and other healthful things that your body needs to grow.
   - Many foods contain added sugars: crackers, cookies, cakes, and cereals to name a few.

   Ask: Can you think of any other foods that have added sugars?
   - The number one source of added sugar in our diets is soft drinks.
   - Too much added sugar can add unhealthy weight to your body.
2. ***Review the basics of Carbohydrates and Sugar:***
   - Carbohydrates are our main source of energy.
   - Sugars and starches are the two main types. They are in fruits, vegetables, and grain products.
     a. Sugars are simple molecules made of carbon, hydrogen, and oxygen. Plants produce sugar during photosynthesis by trapping the radiant energy from the sun inside the chemical bonds that hold together the atoms of the sugar molecule.
     b. Starches are complex chains of sugar molecules. We tend to break down starches into simple sugar units during digestion.
3. ***Review the basics of High Fructose Corn Syrup:***
   - It is a sweetener made from corn and can be found in numerous foods (ketchup, bread, cereal, tomato sauce, granola bars, and most processed food and beverages on grocery store shelves).
   - It is composed of either 42 percent or 55 percent fructose -- the rest of the sugar is glucose.
   - It was first made in the early 1970's. There are three main reasons it is in most foods:
     a. It is cheaper, due to the abundance of corn grown in the United States.
     b. It is easier to transport because it is a liquid.
     c. Products with High Fructose Corn Syrup tend to last longer than those made with sugar.
4. ***Here are more Soda FACTS you can share with your students:***
   - The average teen drinks more than 750 cans of soda per year!
   - Several scientific studies suggest that soft drinks are directly related to weight gain. That weight gain, in turn, is a prime risk factor for type 2 diabetes which is a problem for teens as well as adults. As people get older, excess weight also adds to risks for heart attacks, strokes, and cancer.
   - Carbonated soft drinks are the single-biggest source of sugar calories in the American diet -- about 7 percent of our calories. Adding in non-carbonated drinks brings the figure to 9 percent. Teens get 13 percent of their calories from carbonated and non-carbonated soft drinks.
   - Soda promotes tooth decay because it bathes the teeth in sugar-water for long periods of time.
   - We drink more soda today than we did in the past. In the 1950's, Coca-Cola was sold in 6.5-ounce bottles. Now the bottles are 20 ounces.
5. ***Break class up into small groups to complete Worksheet 1 "Sweet Ain't Cheap"***

DAY 2

Objectives: Students will be able to:

-Calculate how many calories they consume if they drink one 12-oz soda each day for one year.
-Identify potential negative health effects of consuming so many extra calories from sugar.

Materials:

- ✓ Worksheet 2 **"How Many Calories" (1 per student)**
- ✓ Optional: one can of regular soda, one can of diet soda, large transparent container, water

1. **Using Worksheet 2**, ask students to break into groups to complete exercises. Discuss the answers as a class after they complete the worksheet.

2. Soda Float Activity (Optional): You will need 1 can of regular soda, 1 can of diet soda, 1 transparent container large enough to hold 2 cans of soda, and water
   - ✓ Fill the container with water. Show students a can of regular soda and a can of diet soda.
   - ✓ Ask them to predict what will happen when the can of regular soda and the can of diet soda are placed in the container of water.
   - ✓ Place the REGULAR soda in the container of water. (*It will sink.*)
   - ✓ Place the DIET soda in the container. (*It will float.)*
   - ✓ Ask the students if they can guess WHY this happened.
     - *Explanation:* Even though both cans have the same amount of liquid, regular soda has 10 teaspoons of sugar while diet soda uses artificial sweetener. Artificial sweetener is much sweeter and weighs less than sugar, so only a small amount is needed to provide the same sweetness as in regular soda.
     - *Note:* Although diet soda does not have sugar in it, it still has acid which can cause cavities. Also, it does not contain any nutrients. Therefore, we recommend choosing water, 100% juice, or non-fat/low-fat milk instead.

DAY 3

Objectives: Students will be able to:

-Identify drinks that have less added sugar
-Demonstrate the ability to use goal setting skills to enhance health

Materials:

- ✓ Worksheet 3 **"How Sweet It Is"** (1 per student)
- ✓ **"Rethink Your Drink"** poster (1 per class)
- ✓ **"Rethink Your Drink"** wristbands (1 per student)
- ✓ **"Soda Free Summer"** commitment cards
- ✓ Optional: Sugar, teaspoon, 2 clear plastic bags for scooped sugar

1. ***Discuss "Rethink Your Drink" poster***
   - Compare the different amounts of sugar in cola (17tsp), juice drink (13tsp), sports drink (9tsp), and water (0tsp) observed on the ***Rethink Your Drink*** poster. Which drink is winning? Why is that drink winning?

2. *Visual Activity (Optional):*
   - *Scoop 10 tsp of sugar into a clear plastic bag* – this is how much sugar is in one 12-oz can of soda
   - *Scoop 17 tsp of sugar into a clear plastic bag* – this is how much sugar is in one 20-oz bottle of soda

3. ***Distribute Worksheet 3*** *"How Sweet It Is", the "Soda Free Summer" commitment cards and "Rethink Your Drink" wristbands.*
   - Have students complete Worksheet 3 in small groups and discuss answers as a class.
   - *Ask* – HOW MANY sugary drinks do you typically have in one DAY? In one WEEK?
   - *Ask* – WHY do you drink sugary drinks?
   - *Ask* – Do you think you can drink FEWER sugary drinks?
   - *Ask* – Do you think you can STOP drinking sugary drinks altogether?

4. ***Ask students to commit*** *to a "Soda Free Summer" by signing the commitment card and wearing a wristband.*
   ****Teachers – We encourage YOU to make the pledge yourself in front of the students!!!****
   - *Ask students to identify a drink with less sugar to replace soda.*
   - Encourage students to share what they have learned about sugar with their families. Students should bring the "Soda Free Summer" commitment cards home and talk to their families about having a "Soda Free Summer". Have the family track by initialing in the box if they have had a soda free day.

WORKSHEET 1

Sweet Ain't Cheap

Soda Self Assessment

1. How often do I (or my family) drink soda? _____
2. How often do I (or my family) buy soda? _____
3. How much does it cost? _____
4. How do you feel about your responses to questions #1-3? Did your answers surprise you? _____

How Much Money Is Spent on Soda?

Information:

- One 12-ounce can of soda costs about $1.10 at the corner store
- There are 365 days in a year
- There are 4 calories in 1 gram of sugar
- One teaspoon of sugar is equal to 4 grams

Questions:

1. If you drank one 12-ounce can of soda each day for half of the year, how much money would you have spent?

2. If you drank two 12-ounce cans of soda each day for a year, how much money would you have spent?

WORKSHEET 2

How Many Calories from Sugar?

Information:

- One 12-ounce can of soda costs about $1.10 at the corner store
- There are 365 days in a year
- There are 4 calories in 1 gram of sugar
- One teaspoon of sugar is equal to 4 grams

Nutrition Facts	
Serving Size 1 Can	
Amount Per Serving	
Calories 140	
	% Daily Value *
Total Fat 0g	**0%**
Sodium 50mg	**2%**
Total Carbohydrates 35g	**13%**
Sugars 35g	
Protein 0g	

Questions:

1. Looking at this sample soda label, how many calories come from sugar?

2. If you drank one soda each day for a year, how many calories would you take in from soda?

3. If you drank one soda each day for a year, how many teaspoons of sugar would you take in from soda?

4. What are some potential negative health effects of consuming so many extra calories from added sugar?

WORKSHEET 3

How Sweet It Is

Exercise:
Look at the chart of various drinks in the "Soda Free Summer" Brochure.

1. Based on the common serving sizes you see on the chart,
   a. Which drink has the most sugar?
   b. Which drink has the least sugar?

2. Drinks come in all different sizes. Often, we may not realize how much sugar we are actually taking in per ounce of liquid.

What if these drink containers were all 20-ounces….
Which would have the most sugar? Which would have the least sugar? **Do the math!**

Calculation Example: 16 ounces of Kool-Aid has 8 teaspoons of sugar.

Step 1: 20 ounce Kool-Aid / 16 ounce Kool-Aid = 1.25 multiplier
Step 2: 1.25 X 8 teaspoons of sugar = 10 teaspoons of sugar

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20 ounce Orange Drink / 16 ounce Orange Drink =

____ multiplier X _____ tsp of sugar = _____ tsp of sugar

20 ounce Sweetened Tea Drink / 16 ounce Sweetened Tea Drink

____ multiplier X _____ tsp of sugar = _____ tsp of sugar

20 ounce Big Pouch / 11.25 ounce Big Pouch

____ multiplier X _____ tsp of sugar = _____ tsp of sugar

a. Which drink has the most sugar? _____
b. Besides water, which drink has the least sugar? _____
c. Are your surprised by these findings?

3. A 16 ounce can of Rockstar Energy Drink has 16 teaspoons of sugar. How does it compare with an 8 ounce can of Red Bull Energy Drink with 7 teaspoons of sugar? How do they compare with Cola?

4. What can YOU do to "Rethink Your Drink" and how will this benefit your health? _____