

Lesson Note: I created this lesson plan while working as the Community Outreach Coordinator for Health Connections of the Upper Valley. This was one of two nutrition presentations I gave to 3rd and 4th graders at five local schools during the year. As such, it is in more of a “presentation” format and does not follow the NHES or skills-based health education model. I chose to include this example because it demonstrates my use of math skills in the health education setting (highlighted areas emphasize use of math).

3/4 GRADE NUTRITION: HIDDEN SUGARS

1. **Effects of Sugar Demonstration**

Ask for input about the short and long term effects of eating too much sugar. Volunteer comes up and holds: fat (obesity), occluded artery (heart disease), glasses (lack of focus), teeth (tooth decay), tennis ball (hyperactivity), yawn (“crash”/exhaustion), glow stick (sleep disruption), hammer (headache)

2. **Twinkie Example**

Show picture of twinkies and “nutritious lunch” and point out which has more sugar. Explain that sugar is in many more foods than we realize. Note that the more sugar we eat, the more we crave it.

3. **Calculate the Sugar**

Distribute a food to every student and ask them work in groups to find the grams sugar in every item. One students should take notes in the sheet provided (next page). On the board, go through breakfast, lunch, snack, and dinner, writing down the foods and listing the grams and teaspoons of sugar for each (this double checks the math and helps with rounding). Once teaspoons are listed on the board, have all students measure their items’ sugar into a plastic baggie. Share results and then add total sugar quantity for the day.

4. **What Can We Do?**

See if students can generate a list. Limit sugar-sweetened beverages. Switch to lower sugar foods like cereals, yogurts, and granola bars (not reduced sugar). Read labels. Limit yourself to 1 treat/day. Have a fruit or veggie before you have a treat.

Materials:

For demo: fat glob, occluded artery, crazy glasses, teeth, tennis ball, yawn, glow stick, hammer

Foods: apple, chobani, Fruity Hoops, belly washers, pb, jam, raisins, vitamin water, granola bar, mac & cheese, ketchup, milk, pumpkin, ice cream

Twinkie/lunch picture

Plastic spoons, measuring spoons, sugar, plastic bags

Sugar Detective Sheets (1 per group)

SUGAR DETECTIVES:

Finding the Sugar Hidden in Your Food

Directions

1. List the names of your foods in the chart below
2. Find the amount of sugar on the nutrition facts label of your food.
3. Fill in the chart in the “grams” column.
4. Now divide the number of grams by 4—that’s the number of teaspoons of sugar.
5. Fill in your answer in the teaspoons column.
6. Add all the grams together to find the total grams of sugar in your meal.
7. Add all the teaspoons together to find the total teaspoons of sugar in your meal.
8. Count out plastic spoons to match the total number of teaspoons in your meal.

Challenge questions: Is the sugar in your food natural or refined? How can you tell?

FOOD	GRAMS OF SUGAR	TEASPOONS OF SUGAR
TOTAL		

