

WHO WANTS TO BE A BEVERAGE BILLIONAIRE?

Focus Lesson: Who Wants to be a Beverage Billionaire?

Materials:

Container of sugar
 Bottles of corn syrup
 Measuring spoons
 Clear cups
 Pencils
 Empty bottles of demonstration beverages: soda, juice, sports drinks, iced tea
 Optional made handout: Matching sugar content with drinks
 Nutrition labels
How Did That Get In My Lunchbox?: The Story of Food by Chris Butterworth

Time: Day One 45-50 minutes
Day Two 30-40 minutes

***Common Core Standards:**

CCSS.MATH.CONTENT.5.NBT.B.5

Fluently multiply multi-digit whole numbers using the standard algorithm.

CCSS.MATH.CONTENT.5.NBT.B.6

Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

Thinking Skill: Comparing, Ordering, Estimating

Objective:

Students will explain the significance and purpose of a nutrition label.
 Students will understand where to find the sugar content on a nutrition label.
 Students will compare the amount of sugar content in their beverages.
 Students will recognize the beverages with the lowest amounts of sugar.
 Students will determine the amount of sugar in a beverage by reading the nutrition label.
 Students will learn the vocabulary for sugar words, ie. sucrose, dextrose, corn syrup.

Connection:

Just like it's important to know where our food comes from, it is also essential to keep in mind what is in our drinks. What makes something healthy for our bodies? Is it the color? The texture? The way it makes us feel? We've been exploring the idea of whole foods and stories behind how foods get to us. Soda and juice are man-made. This means, it does not come from the ground, but is instead made and put together by people and has multiple ingredients. Today we will take a closer look at what is inside of our drinks, and how sugar and corn find their way into our cups.

Explicit Instruction:

Today we will become nutrition experts and take a look at how much sugar is in our drinks. We will calculate exactly how many teaspoons of sugar are in our everyday beverages.

Guided Practice:

Warm Up:

Have students stand up and move to one side of the room to guess if a statement is true and stand on the other side of the room if the statement is false. Reveal the answer after each statement.

- There is honey added in my cola. (False)
- There is corn in my cola. (True)
- There is sugar added in my cola. (True)
- Sugar can contribute to cavities. (True)
- Sugar causes diabetes. (False)
- Sugar tastes yummy. (Depends!)
- There is sugar added to my juice. (Depends!)

Stay standing. With a paper and pencil, interview 3-4 classmates. Ask them what their favorite drink is.

Come back and share with class. Make list of drinks on board.

Use one soda beverage as a model for how to read a nutrition label. Project nutrition label onto board, or hand out example to students. Highlight the sugar content and where to find it on the label. Explain that sugar and corn syrup can be found in both food and drinks!

Model with students how to measure out 4 grams of sugar= 1 teaspoon. Use one beverage as an example, and do the division with students on board and measure out sugar into plastic cup. For example, if a 20 ounce cola drink has 65 grams of sugar, divide by 4 and find how many teaspoons to scoop.

Explain what a serving size is. If there is more than one serving size listed on the label, the group needs to multiply the teaspoon amount by the number of servings in the bottle.

Equation: Grams of Sugar \div 4= Total teaspoons of Sugar
Total teaspoons of Sugar x How Many Servings in the Can/Bottle

Independent Practice:

How much sugar is in my soda?

Group students and ask them to complete the math and the measuring of sugar content to their assigned 2-3 beverages (empty cans or bottles). How many teaspoons of sugar? Scoop teaspoons into clear cup, using sugar or corn syrup. Ask students to label their clear cups with the both the sugar content in teaspoons and the beverage label they measured. Line cups up in front of classroom when finished.

Day Two:

Who Wants to be a Beverage Billionaire:

Split class into two teams.

One member from each team comes up to answer math questions to solve how many teaspoons of sugar are in the given beverage. Operates similarly to “Who Wants to be a Millionaire?”

List nutrition information on the board with the question and have four multiple-choice answers available. Students may “call a friend,” “use a life line” etc...

Sometimes, offer the teaspoons of sugar and have students convert back to grams etc...

Reflection – Group Share:

Reconvene as class and discuss which drink has the highest sugar content. Any surprises? Which drinks have the least amount of sugar?

Explain the difference between added sugar and natural sugars. Sometimes fruit juices have added sugars and sometimes they do not. This is why it is important to read ingredient lists as well as nutrition labels.

When finished, create a graph or chart showing beverage and amount of sugar.

Extra activity:

Corn syrup and honey have a similar consistency. Do a taste test and discuss the differences between the two substances. Ask students to write their response in their science journal.

Reading list:

How Did That Get In My Lunchbox?: The Story of Food by Chris Butterworth

Teacher Note: