

Unit: Nutrition

Lesson Topic: Show me the sugar

Aim Question: How do you decipher the amount of sugar on a food label?

1. What LEARNING OBJECTIVES/MAIN IDEAS do students need to know (maximum of 3)

- ❖ SWBT understand that diseases and health problems can be eliminated or delayed through good self-management strategies.
- ❖ SWBT decipher the sugar content on a food label and recognize what is and what isn't healthy.

2. What COMMON CORE skills will be introduced or reinforced during this lesson?

- ❖ Applying mathematics to decipher the sugar content on a food label.

3. Which content area STANDARDS are addressed in this lesson?

❖ **National Learning Standards**

- Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.
- Standard 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

❖ **New York State Learning Standards**

- Standard 1:*Personal Health and Fitness*: Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and maintain personal health.

❖ **Skills Addressed**

- SM.C.4 Predicts short- and long-term benefits and harmful consequences of behaviors based on the personal health and safety resources.
- DM.C.3 Gathers, synthesizes, and evaluates available information to enhance health.
- DM.C.4 Personalizes health risk of decisions to self and others
- DM.C.8 Assumes responsibility for personal health decisions.

❖ **Functional Knowledge**

- PAN.C.5 Physically active individuals are less likely to develop the chronic diseases that cause most of the morbidity and mortality in the United States: cardiovascular disease, hypertension, non- insulin dependent diabetes, and colon cancer.
- PAN.C.6 Obesity acquired during childhood and adolescence may persist into adulthood and increase the risk later in life for coronary heart disease, gallbladder disease, some types of cancer, and osteoarthritis of the weight- bearing joints.

4. What academic and content specific VOCABULARY is introduced in this lesson?

- ❖ Sugar Conversion: Grams to Teaspoons
- ❖ Diabetes
- ❖ Obesity

5. What materials will I present to students?

- ❖ Sugar is killing us video
- ❖ Brown Bags
- ❖ Sugar Cubes
- ❖ Calculators
- ❖ Zip lock bags
- ❖ Sugar PowerPoint.
- ❖ Group Questions

GROUP 1	GROUP 2	GROUP 3	GROUP 4	Group 5	Group 6
<ul style="list-style-type: none"> • Nesquik chocolate milk • Froot-loops • Fruit punch snapple 	<ul style="list-style-type: none"> • Tropical Skittles • Chobani Blueberry Non-fat Yogurt • Monster Energy Drink 	<ul style="list-style-type: none"> • Frosted Flakes • Brown sugar pop-tarts • XXX Vitamin Water 	<ul style="list-style-type: none"> • Gatorade X-Factor Fruit Punch Berry • Chocolate Chip Clif Bar • Yoplait Strawberry yogurt 	<ul style="list-style-type: none"> • Redbull • Sourpatch • Lemon Snapple 	<ul style="list-style-type: none"> • Hawaiian Punch, Fruit Juicy Red • Coca-Cola

6. What activity, if any, will I use to settle students and establish a context (DO NOW)?

- ❖ What are the 6 major nutrients?
- ❖ Which 3 nutrients provide the body with energy?
 - These nutrients make up calories, and calories give us energy.

7. How will I open the lesson (MOTIVATION) and capture student interest?

- ❖ Sugar is killing us video
 - How does society portray sugar compared to this video?

8. What additional INDIVIDUAL/TEAM/FULL CLASS ACTIVITIES will I use to help students discover what they need to learn (suggest 3)? If these are group activities, how will student groups be organized?

- ❖ The teacher will begin the class with a short video about added sugar. The video is called “Sugar is Killing us”
- ❖ After the video the students will be given the opportunity to discuss it with the person sitting next to them. After they discuss their thoughts the teacher will ask students to share with the class.
 - Think, Pair and Share
 - How does society portray sugar compared to this video?
- ❖ The teacher will then begin the PowerPoint Presentation.

9. How will I DIFFERENTIATE INSTRUCTION with MULTIPLE ENTRY POINTS for diverse learners?

- ❖ Visual Presentation

- ❖ Verbal Discussion
- ❖ Hands on Activity

10. What KEY questions will I ask to engage students in analysis and discussion?

- ❖ How does society portray sugar compared to this video?
 - Society makes false claims to sell more of their product.

- ❖ **What Problems associated with excess sugar in the body?**
 - Your body can only use and store so much glucose that when you intake too much it stores as fat. (Obesity > heart disease) (Type 2 Diabetes) (Dental Cavities)
 - Okay, so what does all this mean to us?

 - **Does anybody know someone affected by diabetes 1 and/or 2 ?**
 - How has their life changed?
 - Do you think their life is difficult to manage
 - How could a type 2 diabetic avoid this?

- ❖ **What's in your snack? Rethink Your Drink.**
 - We're going to do an activity and look at the sugar content in common foods and drinks sold in the cafeterias around the country.
 - But how do we do this!?

- ❖ **What does this mean?!**
 - What does 1G of sugar mean?
 - Can anyone tell me what 1G of sugar is equivalent too?
 - a. \$1 coin, a quarter, a golf ball ...
 - When you read the food label do you actually know what 20g of sugar means...
 - 4g of sugar = 1tsp
 - For the sake of this class were going to say 1 tsp = 1 sugar cube

- ❖ **Class example of conversion formula**
 - Frosted S'mores Pop-Tart
 - 19G in 1 Pop-Tart
 - a. 2 Pop-Tart's in the package
 - $19G + 19G = 38\text{ Grams}$
 - $38G/4$
 - BECAUSE 4g of sugar = 1tsp.
 - **9.5 tsp total**

 - Mountain Dew
 - 46G in 1 can
 - $46/4$

- 11.5 tsp total

❖ **RETHINK YOUR DRINK/SNACK**

- Each group will be given a bag with 3 food items inside.
- Each member of the group will be given a specific responsibility (scribe, runner, teller, speaker).

❖ **Group Presentations**

- **Teller:** Tell the class about the items in your lunch and the total amount of sugar in each item.
- **Answer:** Tell the class the question you were given and your response.

➤ **Q1: What are the health problems associated with high sugar consumption?**

- a. Obesity, Diabetes, Dental Cavities (problems that arise)

➤ **Q2: Is it safe to say that we can ELIMINATE / DELAY DISEASES by practicing good self-management strategies???? Why?**

- a. Healthy body weight, nutritious diet, regular physical activity, Know your family history

➤ **Q3: By having this nutrition information can we manage a healthier lifestyle? How?**

- a. Knowing how to read these labels is important to our health more so than just understanding sugar into grams. IT IS A USEFUL TOOL TO MANAGE THE FOOD WE EAT AND THE DRINKS WE DRINK

➤ **Q4: What are healthy alternatives for sweetened beverages?**

- a. Water, Seltzer, Spritzers, Unsweetened tea, diluted juice

➤ **Q5: What did you learn from this activity? What surprised you?**

- a. Students personal response.

➤ **Q6: Using your chrome book, go to www.heart.org & Search SUGAR 101. Click the article. Read "Need to Reduce Added Sugar." According to the AHA _____ should NOT consume more than ___ teaspoons of added sugar a day and _____ should NOT consume for than ___ teaspoons of added sugar a day. AHA SAYS**

- a. **Women** should not consume more than **6tsp** of added sugar a day (100 calories). **Men** should not consume more than **9tsp** of sugar a day (150 calories)

11. How will I ASSESS student master of the skills, content, and concepts taught in this lesson?

- ❖ Each member of the group will have a different responsibility
 - **Scribe:** Record the sugar content of each item.
 - **Runner:** Get the TOTAL number of teaspoons of sugar from the sugar bowl & put it in a bag.
 - **Teller:** Tell the class about the items in your lunch and the total amount of sugar in each item.
 - **Speaker:** Tell the class the question you were given and your response.

12. How will I bring the lesson to CLOSURE (SUMMARY QUESTION)?

- Is there something in your house that you think can be replaced? What is it and why would you replace it?

13. How will I reinforce and extend student learning?

- ❖ **Classroom Applications:** Sugar is killing us video
- ❖ **Enrichment Activities:** Decipher the amount of sugar in your lunch

14. What topics come next?

- ❖ **Tomorrow:** Hungry For A Change