Lesson Plan

Essential Question: What can be done to develop a greater understanding of the impact sugar-sweetened beverages have on obesity?

Lesson Question: How can I make healthier drink choices?

Kansas Family and Consumer Sciences Crosswalk

Basic Skills (underline): Language Arts, Math, Science, Social Studies

21st Century Process Skills (check all that apply):
- X Thinking and Problem Solving: Critical Thinking, Problem Solving (Flexibility), Creativity (Innovation)
- X Information Literacy and Communication Skills: Communication (Media Literacy, Technology)
- X Leadership and Collaboration: Leadership (Initiative), Management (Productivity), Goal Setting, Decision Making, Cooperation

Career Cluster Alignment (check all that apply):
- Agriculture: Agriculture Science
- Architecture and Construction: Design and Pre-Construction
- Arts, Audio Visual Technology and Communication: Visual Arts
- Business Management and Administration: Business Entrepreneurship and Management
- Education and Training: Teaching and Training
- Government and Public Administration: Government and Public Administration
- X Hospitality and Tourism: Restaurant and Event Mgmt./Travel and Tourism
- X Human Services: Consumer Services/Early Child Dev and Services/Family Comm Services
- Science, Technology, Engineering and Mathematics (STEM): Biomedical

Learning Objectives

The learner will:
1. Understand the effect excessive sugar consumption has on overall health.
2. Analyze nutrition facts labels to compare and to contrast sugar content in a variety of beverages.
3. Identify ways to incorporate healthy beverages into their lifestyle.

Vocabulary:
- O Sugar-sweetened Beverage
- O Nutrition Facts Label
- O Sweetener
- O Added Sugar
- O Natural Sugar

National FCS Standards

Refer to: www.nasafacs.org/national-standards-and-competencies.html

Area of Study: 14 Nutrition and Wellness
Content Standard: 14.2 Evaluate the nutritional needs of individuals and families in relation to health and wellness across the lifespan.
Competency: 14.2.4 Analyze sources of food and nutrition information, including food labels, related to health and wellness.
INSTRUCTION

Bell Work: Write down the last drink you purchased. What were some factors that influenced your choice? (Ex: cost, friends, media, personal preference, availability, etc.)

ANTICIPATORY SET

Approximate Time: 10 minutes

Materials to prepare:
- Print or display “The 5 C’s of Sugary Drinks”

1. The 5 C’s of Sugary Drinks:
   - Instruct students to be active for several minutes. Ideas include but are not limited to: sets of several exercises (jog in place, jumping jacks, etc.), a competitive active sports game (volleyball, basketball, dodgeball, etc.), or display a popular music video to dance along to.
   - Shortly following the activity, ask students: “What might life look like if your bones were to fracture on a regular basis during physical activity, such as what happens to those with osteoporosis?”
   - Display or pass out “The 5 C’s of Sugary Drinks” for discussion.
   - When soda or other sugary drinks replace dairy drinks, Calcium loss can occur due to phosphorus and caffeine interfering with calcium absorption. Calcium loss, which can develop into osteoporosis, is just one of several concerns when it comes to consuming sugary drinks. Other concerns include: excess calories leading to potential weight gain, caffeine addiction, cavities, and poor nutritional content.

LEARNING PROCESS TH ACTIVITIES

Approximate Time: 70 minutes

Materials to prepare:
- Paper or electronic copies of Rethink Your Drink booklet from the CDC
  www.cdc.gov/nccdphp/dnpa/nutrition/pdf/rethink_your_drink.pdf
- Tape 4 sheets of large paper spread out around the room. Leave plenty of room for students to write, and title them: “Eating Out”, “Home”, “School”, and “With Friends.”
- Copies of “Beverage Sleuths” worksheet
- Sugar cubes
- Storage baggies
- Kansas State Department of Education (KSDE) developed videos

“Read the Rethink Your Drink” booklet aloud with students, pausing after the designated sections to complete the following activities:

1. After reading “What Do You Drink?”
   - Instruct students to participate in a “Walk and Talk” survey:
     - Students move about the room talking about their favorite drinks. Allow 30 seconds
     - 1 minute to pass and then regain their attention with a loud bell or clap.
     - Students then disperse to write the beverage they drink most often at the location written on one of the four large papers.
     - Repeat the “Walk and Talk” three more times so students have a chance to write on all four papers.
     - Share and analyze the results as a class. Discuss what factors might influence their beverage choices at the various locations.
LEARNING PROCESS TH ACTIVITIES

2. After reading “Learn to Read Nutrition Facts Carefully”
   - Have students complete the “Beverage Sleuths” worksheet.
   - Guide students through the process of locating the amount of sugar on the nutrition facts label and interpreting the nutrient data. Provide students with a space to display their sugar-sweetened beverage baggies for comparison.
   - Discuss why it would be important to read the nutrition facts label to help make healthier beverage choices.

3. After reading the remainder of the booklet:
   - Discuss ways they might begin to incorporate healthy beverages into their lifestyle. Focus on setting goals and developing a plan.

ASSESSMENT

Approximate Time: 10 minutes

Materials to prepare:
- “3-2-1” Worksheet

1. 3-2-1:
   - Allow students time to complete the “3-2-1” Worksheet. If time remains, discuss several of the big questions students still have about sugar-sweetened beverages.

DEBRIEFING QUESTIONS

Technical:
- How would you evaluate the amount of sugar in a beverage?
- What are the components of a nutrition facts label?

Interpretation:
- Why do we need to be concerned about sugar-sweetened beverages?
- Why do we need to know how to read nutrition facts labels?

Reflective:
- Would the information learned in this lesson be good for everyone to know? Why or why not?
RESOURCES/HANDOUTS NEEDED

- “The 5 C’s of Sugary Drinks” handout (optional)
- “Sugar Sleuths” worksheet
- “3-2-1” Worksheet

MATERIALS

- 4 sheets of large paper
- Sugar cubes
- Storage baggies

FCCLA INTEGRATION

- Student Body ➔ Educate other students about the impact sugar-sweetened beverages have on obesity and how to make healthier drink choices.

OPTIONAL/ADDITIONAL LEARNING ACTIVITIES/FOLLOW UP

- Students can create a sugar cube beverage display for a display case or a bulletin board to educate peers, parents, teachers, and administration.

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The 5C’s of Sugary Drinks

**Calcium-loss**
Caffeine found in many sugar-sweetened beverages tends to increase the loss of calcium from bones, potentially leading to osteoporosis.

**Calories**
Added sugars significantly increase the caloric content of drinks and therefore may cause weight gain.

**Cavities**
Sugar-sweetened beverages expose teeth to cavities by mixing with bacteria to produce acid. Acid breaks down enamel and causes cavities.

**Caffeine**
Some soft drinks contain caffeine. Drinking caffeine can cause a person to be nervous, cranky or have problems sleeping.

**Content**
Soda, sports drinks and artificial fruit drinks contain mostly sugar. Sugar has no vitamins or nutrients to help your body grow.
**Added Sugars List:**
- Anhydrous Dextrose
- Corn Syrup
- Corn Syrup Solids
- Dextrose
- Fructose
- High-Fructose Corn Syrup
- Honey
- Invert Sugar
- Lactose
- Malt Syrup
- Maltose
- Maple Syrup
- Molasses
- Nectar
- Raw Sugar
- Sucrose
- Sugar

**Beverage Name:**

1. **Calculate the Total Sugar** (in teaspoons).
   
   4 grams of sugar = 1 teaspoon of sugar

   Sugar per serving _____ x Number of servings in drink _____ = _____ Grams (gm) of Total Sugar

   Grams of Total Sugar _____ ÷ 4 gm per teaspoon of sugar=______ Teaspoons of Total Sugar per drink

2. **Analyze the Total Sugar.**

   Looking at the ingredients list on the label, what forms of added sugar are in your drink?

3. **Visualize the Total Sugar.**

   Using sugar cubes, count the number of teaspoons of sugar per drink container and place sugar cubes in a plastic bag. 1 sugar cube represents 1 teaspoon of sugar. Label the bag with your name and the name of your drink.

4. **Compare the Total Sugar**

   How does your drink’s total sugar compare with your classmates’ drinks? What was the lowest? Highest? Where did yours fit?
3-2-1 rethink your drink

**Directions:** Answer the following:

What are **THREE** new facts you learned about sugar-sweetened beverages?

1. 
2. 
3. 

What are **TWO** ways you are going to work on reducing your sugar-sweetened beverage intake?

1. 
2. 

What is **ONE** big question you still have about sugar-sweetened beverages?

1. 