



NUTRITION & THE BRAIN LESSON

Student Objectives

To teach students (Grades K-5) about good nutrition and its effect on the body and brain.

Specifically, students should learn the following concepts:

1. Understand what healthy eating means and why its important for the body and brain.
2. Identify the five food groups and give examples of foods in each.
3. Explain how MyPlate serves as a reminder to eat foods from each food group.
4. Name two changes they can make to increase their healthy eating.
5. Go over Sugar Guessing Game Display to show how much sugar is in food/ beverages commonly consumed by this age group.



Description: The Nutrition and the Brain lesson can be taught in 35 minute sessions.

Materials for Each Nutrition and Brain Station:

1. Station Directions
2. My Plate Infographic
3. Go, Slow, Whoa! Flashcards
4. Read the Label Poster
5. Sugar Shocker Guessing Game Display
6. Fat Model

References:

1. <https://www.choosemyplate.gov/MyPlate>



Station Steps

Step 1. Intro to Nutrition and the Brain, covering the 5 points noted in the Background.

Step 2. Engage the group by asking students to shout out the answer and to call on individuals to answer a question when appropriate. Show the provided visual aids to the group as you are discussing.

Step 3. Quiz Students on the 5 food groups (call on individuals) using provided flashcards.

Step 4. Quiz students on Go-Slow-Whoa Foods using Flashcards

Step 5: Go over the Sugar Guessing Game Display.

Ask students how much sugar is in each product.



Background

1. Why do you eat? What does it mean to eat healthy?
 - Everyone must eat as food is the fuel for one's body and brain.
 - Food gives us important nutrients that help our bodies grow strong; food gives us energy to learn, play, grow and live.

2. Nutrition and the Brain

- The brain is always “on.” It takes care of a person's thoughts, movements, breathing, heartbeat, etc. The brain works hard 24/7, even during sleep, so the brain needs a constant supply of fuel.
- That “fuel” comes from the foods we eat — and what's in that fuel is important. So, what we eat directly affects the structure and function of our brain and ultimately our mood. The brain functions best when it gets only premium fuel- high-quality foods that contain lots of vitamins and minerals.

3. My Plate- A graphic reminder to eat foods from each food group, leading to a healthy eating style. Identify the five food groups and give examples of foods in each.

Five Food Groups:

- Fruit Group-focus on whole fruits. Daily Fruit Intake: Children, ages 4 to 8 years old, 1 to 1.5 cups
Girls ages 9 to 13 years old, 1.5 cups



- Vegetable Group-focus on eating a variety of vegetables. Daily Vegetable Intake: Children, ages 4 to 8 years old, 1.5 cups
Girls, ages 9 to 13, 2 cups

- Dairy Group: focus on low-fat dairy sources
Includes milk, yogurt, cheese and soymilk. Provides calcium, vitamin D, potassium, protein, and other nutrients needed for good health throughout life. Choices should be low-fat or fat-free—to cut calories and saturated fat.

Daily dairy intake: Children 2 to 3 years old need 2 cups and Children 4 to 8 years old, 2½ cups

- Protein Group: remind them that protein doesn't have to come from meat. All foods made from meat, poultry, seafood, beans, peas, eggs, nuts and seeds. In general, 1 ounce of meat, poultry or fish, ¼ cup cooked beans, 1 egg, 1 tablespoon of peanut butter can be considered as 1 ounce-equivalent from the Protein Foods Group.

Daily Protein intake: Children ages 4 to 8 years old, 4 ounce equivalents and Girls 9 to 13 years old, 5 ounce equivalents.

- Grains Group: focus on whole grains and complex carbohydrates
Any food made from wheat, rice, oats, cornmeal, barley or another cereal grain is a grain product. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples.

Daily Grains intake: Children ages 4 to 8 years old and Girls 9 to 13 years old, 5 ounce equivalents.



Important Points

- Everything you eat and drink matters. The right mix can help you be healthier now and in the future.
- Focus on variety, amount, and nutrition.
- Choose foods and beverages with less saturated fat, sodium, and added sugars.
- Focus on proportion sizes. Avoid “Texas Sized” portions.
- Support healthy eating for everyone in your house.
- Start with small changes to build healthier eating styles

4. Why is it important to eat a variety of foods from all food groups? What foods should kids eat less of, and why?

- Choosing a variety of foods within and across food groups improves dietary patterns because foods within the same group have different combinations of nutrients and other beneficial substances. Choosing a variety of foods within each group also helps make your meals more interesting from day to day.
- Some foods are better for us, while some foods are not. Foods with added sugars and solid fats should be eaten only some of the time. Foods high in fiber, vitamins, and minerals should be eaten every day. Give examples of healthier options.

5. What are carbohydrates? Why do we need them? {For older groups}

- A carbohydrate is a macronutrient. We eat three macronutrients: carbohydrates, proteins, and fats. All three of these are very important, but carbohydrates are what fuels our brains! When we digest carbohydrates, they break down into sugars that fuel our brain.
- We get carbohydrates from all kinds of foods, especially grains, fruits, and vegetables. It is important to eat carbohydrates!



6. Sugar Guessing Game Display

- Drinks would be: Trumoo Chocolate milk, organic Gatorade, Coke, Mountain Dew, juice that isn't 100% fruit juice, water.
- Each drink would have a little bowl corresponding with skittles in it. However many grams of added sugars are in the drink, that's how many skittles are in the bowl.
- Kids would have to guess which bowl corresponds to which drink (without looking at the nutrition label).
- After they guess, we could discuss each drink. Talking points...
- Always look for 100% fruit juice, try to drink more water, just because it says organic doesn't mean anything about health, don't drink Gatorade unless you have been active and sweating for at least an hour, milk is a better option because less added sugar and lots of good nutrients, soda has lots of added sugar.

7. Understanding Nutrition Facts Label

Three Easy Steps! Explain the program's key messages on Calories, Serving Size and Nutrients.

- Consider the Calories
- Check Serving Size
- Choose Nutrients Wisely
- Fat Model- Remember: High protein, low fat, low carbohydrate.

