Lesson Overview

Students will begin by recording all food and beverage items eaten the previous day. The educator will then introduce students to the MyPlate Food Guide and present/discuss the food group recommendations for a typical 12 year-old who needs about 2000 calories. Students will identify the four nutrients of concern (potassium, dietary fiber, calcium, vitamin D) and understand how these nutrients form the basis of MyPlate Food Group recommendations.

Using the choosemyplate.gov website, students will enter personal data and receive a customized Daily Food Plan. Students will then compare their diet recall to the Daily Food Plan and write a brief assessment of their food habits.

Students will then break into small-group huddles and participate in a role playing/problem solving activity using realistic scenarios that reflect real-life barriers to adopting a healthy eating plan based on the MyPlate food guide.

The optional Fuel-up Food Prep* activity is a personal pizza on whole grain flatbread which features a nutrient-rich whole grain base, vegetables (sauce and toppings) and part-skim mozzarella cheese.

Lesson Objectives

The student will:
1. Briefly describe the nutrients of concern, the MyPlate Food Guide, the five food groups, and how MyPlate reflects the elements of a well-balanced diet.
2. Use the choosemyplate.gov website to generate a personal Daily Food Plan and compare a typical day's food plan to their recommended food plan.
3. Participate in a small-group role playing/problem solving activity focused on realistic scenarios which highlight barriers to adopting an eating plan based on the MyPlate food guide.
4. (Optional) Gain food preparation skills by making a nutrient-rich personal pizza on whole grain flatbread.

Academic Integration

Health, Critical thinking, Language Arts
Leader Background

The MyPlate food guide provides a graphic presentation of a healthful, balanced diet. It was designed as an easy tool to remind Americans to eat all five food groups in the proper portions. The USDA Dietary Guidelines form the scientific basis for the MyPlate food guide. According to the 2015 Dietary Guidelines for Americans policy report (found at www.cnpp.usda.gov/Publications/DietaryGuidelines/2015/PolicyDoc/PolicyDoc.pdf):

"Americans eat too many calories and too much solid fat, added sugars, refined grains, and sodium. Americans also consume too little potassium; dietary fiber; calcium; vitamin D; unsaturated fatty acids from oils, nuts, and seafood; and other important nutrients. These nutrients are mostly found in vegetables, fruits, whole grains, and low-fat milk and milk products."

The report highlights the nutrients of concern which are potassium, dietary fiber, calcium, and vitamin D. The following food groups are the best sources of these nutrients:

- **Potassium**: Dairy, Fruits, Vegetables
- **Dietary Fiber**: Fruits, Vegetables, Whole Grains
- **Calcium**: Dairy
- **Vitamin D**: Dairy

It is notable that dairy foods, including milk, yogurt and cheese are a significant source of three of the four nutrients of concern. Children and teens ages 9-18 require 3 servings daily. A serving is 8 ounces of yogurt or milk (white or flavored) and 1.5 ounces of cheese.

While the MyPlate guide is a helpful tool designed to guide Americans toward more healthful food choices, many barriers (both personal and societal) often make it difficult to make the right choices on a daily basis. That is why this lesson includes small group role-playing with realistic scenarios that depict some of the barriers to good eating faced by tweens and teens.

As time and resources permit, consider conducting the Fuel-up Food Prep activity. Students gain life skills and are more willing to try nutrient-rich choices when they have hands-on experience in food preparation.

Before teaching the lesson, review the following resources:

1. [choosemyplate.gov](http://www.choosemyplate.gov)
2. [www.southeastdairy.org](http://www.southeastdairy.org)
3. Interactive Daily Food Plan at [www.choosemyplate.gov/myplate/index.aspx](http://www.choosemyplate.gov/myplate/index.aspx)
4. [fueluptoplay60.com](http://fueluptoplay60.com)

**Materials Needed**

**To Teach Lesson:**

1. MyPlate graphic (download from [choosemyplate.gov](http://www.choosemyplate.gov))
2. MyPlate Sample 2000 calorie Daily Food Plan for a typical 12 year-old
3. Score Big by Making Winning Food Choices activity sheet and teacher guide
4. Display Projector or large classroom computer monitor

**For Fuel up Food Prep**

Microwave oven
Per student:
1. 1 small whole grain pita or flatbread
2. 1/4 cup prepared pasta or pizza sauce
3. 1/3 cup grated part-skim mozzarella cheese
4. 1/2 cup fresh vegetables (suggestions: diced pepper, sliced mushrooms, small broccoli florets, chopped spinach or arugula)
5. paper or microwave-safe plate

*For Fuel-Up Food Prep activities, consider applying for grants such as the Fuel Up to Play 60 grants available from the National Dairy Council (details at school.fueluptoplay60.com/funds). You can also ask your local booster club, parent organization, or local businesses for donations.*
The MyPlate Food Guide: Score Big by Making Winning Food Choices

Teaching the Lesson
1. Begin by asking students to take out a piece of paper and record everything they ate or drank the day before. If recall is difficult, ask them to start with last night's dinner and work backwards. Ask them to estimate food and beverage amounts as closely as possible.
2. Explain that most children and adults in America are not getting enough of four important nutrients. They are potassium, fiber, calcium and vitamin D. Write these four nutrients on the board. Next, ask students if anyone knows the foods that are good sources of these nutrients. The correct answers are:
   - **Potassium**: Dairy, Fruits, Vegetables
   - **Fiber**: Fruits, Vegetables, Whole Grains
   - **Calcium**: Dairy
   - **Vitamin D**: Dairy
3. Ask students to identify which food group is an important source of three of these four nutrients of concern. The correct answer is dairy foods, including milk, yogurt and cheese. Explain that kids and teens ages 9-18 require 3 servings daily. A serving is 8 ounces of yogurt or low-fat or fat-free milk (white or flavored) and 1.5 ounces of cheese.
4. Project the graphic of the MyPlate food guide, available at choosemyplate.gov. Explain how the MyPlate food guide emphasizes nutrient-rich choices from all five food groups in the proper portions. Recommendations to include dairy, fruits, vegetables and grains address the nutrients of concern. The MyPlate website also includes a tool to determine individual eating plans. Show students a projection of the sample 2,000 calorie Daily Food Plan for a typical 12-year-old.
5. Ask students their thoughts and opinions about the MyPlate guide. Discuss the key messages associated with each food group (Make at least half your grains whole, Vary your veggies, Focus on fruits, Get your calcium-rich foods, and Go lean with protein). Point out that while the MyPlate graphic is simple, the choosemyplate.gov website includes the details and tools needed to plan a healthy diet.
6. As homework or during free classroom time, assign students to go online and get a personalized diet plan at www.choosemyplate.gov/myplate/index.aspx. Ask students to look at their diet recall from the previous day, compare to their personalized diet plan, and write a brief summary of how their diet compares to the MyPlate guidelines.
7. Break classroom into groups of 4-5 students. Pass out the Score Big by Making Winning Food Choices: Using MyPlate to Fuel Up To Play 60 activity sheet. Assign each group one scenario to work on.
8. Give students time to work and devise a solution to their assigned scenario. Ask that they assign one student as the “recorder” and another as the “reporter”.
9. **Write About It/Talk About It**: Have students take turn presenting their solutions for the role-playing scenarios (note: this can take place over several days).
Fuel Up Food Prep
Personal Pizza on Whole grain Flatbread

1. In advance, ask for student or parent volunteers and assign tasks for set-up, coordination and clean up.
2. Clean and sanitize the desks or table where the students will work. Make sure all students wash their hands with warm water and soap for at least 20 seconds prior to assembling their Personal Pizza on Whole Grain Flatbread.
3. Explain that this recipe is an easy snack option that includes at least three food groups. Ask students if they can list the food groups/nutrients contained in this snack (Answer: whole grains, vegetables and low-fat dairy; Nutrients include vitamin A, vitamin C, potassium, fiber, calcium, protein, B vitamins).
4. On a clean table, set out plates, whole grain pita or flatbread, bowls filled with pizza or pasta sauce, bowls filled with vegetable toppings, and small individual cups containing 1/3 cup shredded part-skim mozzarella cheese. Provide tongs or spoons to serve sauce and vegetables.
5. Instruct students to take one pita or flatbread, spread with pizza or pasta sauce, and top the pizza with choice of vegetables and 1/3 cup shredded cheese.
6. Students will take turn heating their pizzas in the microwave for 1-2 minutes or until cheese is melted.
7. Ask students to share this Fuel-up Food Prep idea with their families and friends!

Going Further

- Visit the Fuel Up to Play 60 interactive Playbook at school.fueluptoplay60.com/playbook for ideas on action strategies and ideas that can be implemented by students.
- Challenge students to come up with their own FUTP60 Healthy Eating Plays that reinforce this lesson. For example:
  - Challenge students to learn more about portion sizes by creating a classroom or school "portion size" display. The National Dairy Council food models, free by request at www.southeastdairy.org, can be a central part of the display, since they represent accurate portion sizes.
  - Ask students to keep a food record for three days and compare to their MyPlate personalized Daily Food Plan.
  - Challenge students to set and track small personal goals related to following the MyPlate food guide. A helpful resource for writing goals is the Fuel up to Play 60 pledge, which can be accessed at school.fueluptoplay60.com/documents/DMI_pledge.pdf.
  - Ask students to identify the best food sources of the nutrients of concern and create posters or displays to illustrate foods that contain these nutrients. (Answers: Potassium: fruits, vegetables, dairy, beans; Dietary Fiber: whole grains, fruits, vegetables, beans; Calcium: Dairy Vitamin D: Dairy (fluid milk and certain yogurts)) A helpful resource is the FUTP60 What Foods Can Do for You handout, which can be accessed at school.fueluptoplay60.com/documents/What-Foods-Can-Do-For-You.pdf
- Recommended website for students:
  For students who want to analyze their diet and physical activity in detail, the activity tracker located at www.choosemyplate.gov/SuperTracker/physicalactivitytracker.aspx is a useful assessment tool that provides information on diet quality, physical activity status, related nutrition messages, and links to nutrient and physical activity information.
Huddle up with your team and think up ways to overcome the following common situations facing middle school students. You can create a skit that depicts your solution, assign a reporter to summarize your solution, or even write and perform your own song or rap! Be creative!

1. You are happy because you made the traveling team for your favorite sport! But just about every weekend, your team travels and most of the time, team members choose to eat meals at fast food restaurants. You are finding it difficult to find healthy food choices. What would you do?

2. You know that milk is important for building strong bones and teeth, especially for young teens. You have the last lunch period and lately, the milk is warm by the time you reach the lunch line. How would you handle this?

3. Your friends found a new diet in a magazine. They are excited because the diet claims that you can lose 10 pounds in a week! You can eat as much lettuce and diet gelatin as you want, drink diet soft drinks and eat one chicken breast a day. They are all going on this diet. What would you tell your friends?

4. You are baby-sitting for two small children down the street, ages 4 and 6. What type of meals and snacks would you plan for them? Where can you find information on the nutrition needs of small children? Do you think the kids will eat better if you join them at the table?

5. Most of the advertisements on TV are for less nutritious foods. Design and perform your own ad for the MyPlate Food Guide, a specific healthy food, or one of the food groups.

6. You learned in health class that breakfast fuels your brain and contributes to better grades. But you are always too tired to get up in time to eat and besides, you aren't hungry in the morning. Brainstorm ways to include a morning meal that fits the MyPlate guidelines.

7. Because your school participates in Fuel Up to Play 60, you have been learning all about healthy eating and physical activity at school. But at home, your parents are super busy and don't always have time to make healthy family meals. How would you approach this?

8. You go straight from school to soccer practice and often, the only thing you have time to grab is a soda pop and bag of chips from the vending machine. What are some better quick snack choices that would provide fuel for practice?
Students may need guidance on coming up with solutions for this role-playing activity. Below are some resources and tips for advising students.

1. You are happy because you made the traveling team for your favorite sport! But just about every weekend, your team travels and most of the time, team members choose to eat meals at fast food restaurants. You are finding it difficult to find healthy food choices. What would you do?  
   **Teacher Tip:** Ask students to discuss beverage choices at fast food restaurants, including substituting milk (plain or flavored) for sugar sweetened beverages. Discuss other possible healthy substitutions, including salad or fruit for fries and options for condiments and dressings. Suggest that students access information from fast food restaurants, including in-store brochures and online information.

2. You know that milk is important for building strong bones and teeth, especially for young teens. You have the last lunch period and lately, the milk is warm by the time you reach the lunch line. How would you handle this?  
   **Teacher Tip:** Suggest that students approach the cafeteria staff in a positive, supportive way. Discuss possible options for keeping milk cold, including icing in a large bowl, end-of-line coolers, and other workable solutions.

3. Your friends found a new diet in a magazine. They are excited because the diet claims that you can lose 10 pounds in a week! You can eat as much lettuce and diet jello as you want, drink diet soft drinks and eat one chicken breast a day. They are all going on this diet. What would you tell your friends?  
   **Teacher Tip:** Discuss the dangers of fad dieting, including problems with nutrient deficiencies, energy level and health/growth consequences. Talk about how fad diets that restrict major food groups rarely result in long-term weight control. In fact, studies show that teens who diet miss out on important nutrients and actually have more problems with life-long weight control.

4. You are baby-sitting for two small children down the street, ages 4 and 6. What type of meals and snacks would you plan for them? Where can you find information on the nutrition needs of small children? Do you think the kids will eat better if you join them at the table?  
   **Teacher Tip:** Suggest that students access the http://choosemyplate.gov website for information on meal plans for young children. Remind them that shared meals promote healthy eating behaviors and that they are role models for the young children in their care.

5. Most of the advertisements on TV are for less nutritious foods. Design and perform your own ad for the MyPlate Food Guide, a specific healthy food, or one of the food groups.  
   **Teacher Tip:** Ask students about the type of ads they most likely see. One of the most frequent sources of ads is for fast food restaurants. Suggest they put together an ad that features healthier choices and substitutions while eating out (see first Teacher Tip above).

6. You learned in health class that breakfast fuels your brain and contributes to better grades. But you are always too tired to get up in time to eat and besides, you aren't hungry in the morning. Brainstorm ways to include a morning meal that fits the MyPlate guidelines.  
   **Teacher Tip:** For more information on the importance of breakfast, see the Wake Up and Fuel Up lesson plan in this series.

7. Because your school participates in Fuel Up to Play 60, you have been learning all about healthy eating and physical activity at school. But at home, your parents are super busy and don't always have time to make healthy family meals. How would you approach this?  
   **Teacher Tip:** Discuss with students the importance of respect and how they should approach family members in a supportive, caring way rather than being judgmental. Suggest they offer realistic, positive solutions that start with small steps. The http://choosemyplate.gov has helpful family resources.

8. You go straight from school to soccer practice and often, the only thing you have time to grab is a soda pop and bag of chips from the vending machine. What are some better quick snack choices that would provide fuel for practice?  
   **Teacher Tip:** Suggest that students include at least two of the major food groups in each snack choice. Ask them to brainstorm healthy beverages and snacks that they can pack or access from school vending machines.