Lesson Overview
Students will identify how nutrient-rich food and beverage choices fuel their bodies for high performance. The educator will present a brief overview of the MyPlate Food Guide and lead a discussion with students on how eating well can fuel brains and bodies for success as an A+++ student (Academics, Activities, and Arts). Students will then break into small-group huddles and review and critically evaluate a variety of beverage choices. The optional Fuel-up Food Prep activity “salad on a stick” features nutrient-rich vegetables, cheese cubes and whole grain crackers.

Lesson Objectives
The student will:
1. Understand the link between food, health and overall performance, whether in Academics, Activities/sports, or Arts/creative pursuits.
2. Briefly describe the MyPlate Food Guide and recognize that a well balanced diet filled with nutrient-rich foods including low-fat dairy foods, colorful fruits and vegetables, whole grains, and lean protein foods is essential for both health and performance.
3. Compare, evaluate and report on the nutrient contribution of a variety of beverages.
4. (optional) Gain food preparation skills by making Salad on a Stick, a simple, fun, nutrient-rich snack.

Academic Integration
Health, Critical thinking, Mathematics, Language Arts

Leader Background
Middle school students are more concerned with performance and success and are less interested in learning about future negative health consequences.

This lesson emphasizes that proper nutrition can facilitate student success in many areas. The A+++ student refers to three areas related to student performance, including Academics, Activity/sports, and Arts/creative pursuits. This lesson is designed to encourage students to reflect on their own individual talents and goals and to understand how proper nutrition can boost performance in many areas.

Continued on Page 2
According to the Dietary Guidelines for Americans, the major sources of added sugars in the diets of Americans are sodas, energy drinks, and sport drinks (36% of added sugar intake). In contrast, nutrient-rich flavored milk contributes only 3 percent of total added sugars and 2 percent of total calories in children’s diets. The American Academy of Pediatrics recently released a report stating that in most cases, kids rarely need sport drinks, and that energy drinks are never appropriate for children or adolescents, as some of these products contain caffeine and other substances that could be harmful to children. The report also urges parents to serve water to rehydrate and low-fat or fat-free milk to help hydrate and meet nutrient needs. The report is located at pediatricsaappublications.org/content/127/6/1182.full

Because many beverages currently contribute such a high percentage of empty calories to the diet of tweens and teens, this lesson contains an activity designed to help students critically analyze a variety of beverages and determine the most nutrient-rich choices.

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, consult the following resources:
1. choosemyplate.gov
2. Rethink your drink handout, located at www.southeastdairy.org
3. fueluptoplay60.com

**Materials Needed**
**To Teach Lesson:**
1. MyPlate graphic (download from choosemyplate.gov)
2. Rethink Your Drink handout at www.southeastdairy.org
3. Label or ingredient/Nutrition Facts label information from 1-2 “Energy Drinks”
5. (Optional) National Dairy Council food models, free by request. Contact your local School Program Account Manager at www.southeastdairy.org/about-us/contact-us
   (Beverage choices should be punched out for this activity)
6. Board or flip chart

**For Fuel up Food Prep* (per student):**
1. 1/2 Cup fresh vegetables, cut into 1-inch chunks (suggestions: bell peppers, cucumbers, summer squash, cherry or grape tomatoes, radishes and mushrooms)
2. 1 to 1 1/2 Ounces of low-fat Cheddar cheese cut into cubes (approx. 1/3 cup per student)
3. 2 Tablespoons Low-fat salad dressing
4. Wooden skewers
5. Whole grain crackers

*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.
Teaching the Lesson
1. On a flip chart or the board, write "The A+++ Student." Under the heading, record three columns: Academics, Activities/Sport, and Arts/Creative Pursuits. Ask students to write these same category headings on a piece of paper. Instruct students to record personal interests and goals in each of these areas. Next, lead a discussion and elicit feedback from students about the specific areas that interest them personally. Record these on the board or chart.
2. Explain that food fuels both the body and brain and plays a part in growth, health, appearance and energy levels. Choosing nutrient-rich foods such as low-fat dairy, colorful fruits and vegetables, whole grains and lean protein foods provides the optimal fuel for all types of activities, including those involving thinking, creativity and physical movement.
3. Show students 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 proportions. The MyPlate website also includes a tool to determine individual eating plans (this will be covered in another lesson in this series).
4. Ask students their thoughts about the role of beverages in performance and the A+++ student. Discuss how many beverages provide few nutrients and are thus termed "empty calories." Explain that pediatricians and other experts recommend water and low-fat milk or flavored milk to rehydrate after sports and exercise. Milk in all its forms (e.g. low-fat, flavored, lactose free) is a nutrient-rich beverage perfect for rehydrating after activity. Sports drinks are usually not needed and energy drinks contain caffeine and other substances that can be harmful to growing kids and teens.
5. Break classroom into groups of 3-5 students. Pass out the "So Many Drinks – What do you think?" worksheet as well as the "Rethink Your Drink" handout and energy drink label information (from company websites). As an optional resource, pass out beverage food models from the National Dairy Council Food Model set.
6. Give students time to work and complete the "So Many Drinks – What do you think?" worksheet as a group. Ask that they assign one student as the recorder and another as the "reporter."
7. Write About It/Talk About It:
Have a student from each group give a brief report about their findings and conclusions. Consider having all students write a short summary of what they discovered about beverage choices.
Fuel Up Food Prep

Salad on a Stick
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 Salad on a Stick.
3. Explain that this recipe is an easy, fun snack option for fueling students for performance. Ask students if they can list the food groups/nutrients contained in this snack (Answer: vegetables, low-fat dairy and whole grains; Nutrients include vitamin A, vitamin C, potassium, fiber, calcium, protein, B vitamins).
4. On a clean table, set out plates, skewers and bowls filled with salad ingredients, small individual cups containing 1/3 cup cheese cubes, and bottled low-fat salad dressing. Provide tongs or spoons to serve vegetables.
5. Instruct students to take a skewer, approximately ½ cup total assorted vegetables, a portion of cheese cubes and to pour approximately 2 tablespoons low-fat salad dressing on their plate for dipping. Next, they will thread the vegetable chunks and cheese cubes onto their skewers. Encourage them to dip the vegetables in dressing and enjoy with whole grain crackers on the side.
6. 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:
  - Ask students to record their beverage consumption for one week and present the data graphically.
  - Challenge students to set and track personal goals related to beverage consumption. Encourage the intake of more nutrient-rich beverages and water and limit empty-calorie choices.
  - Create posters for the cafeteria that depict the theme of the A+++ student and how nutrient-rich foods and beverages provide fuel for better performance in Academics, Activities/sports and Arts/creative endeavours.
  - Ask students to investigate the possibility of including chilled low-fat white and flavored milk in vending machines near the gym or locker rooms.
Working in small groups, look at the nutrition labels for the following beverages:

- 1% milk
- 1% or fat-free chocolate milk
- 100% orange juice
- Fruit punch
- Sports drink
- Bottled water
- Cola
- Diet Cola
- Sweetened Tea
- “Energy” Drink
- Others ___________________

Answer the following questions:

1. What is the standard serving size for the beverages you are looking at? Is there more than one serving in a container? Keep the serving size in mind when comparing beverages.

2. For nutrients such as protein*, vitamin A, vitamin C, vitamin D, and Calcium, a food or beverage that provides at least 10% of the Daily Value (DV) of a nutrient per serving is considered a "good source" of that nutrient. List the beverages that contain at least 10% of each of these nutrients:
   *The %DV of protein is not always listed on food labels. A food or beverage is considered a "good source" if it contains at least 5 grams of high quality protein per serving. Dairy supplies high quality protein.

   Protein:______________________________
   Vitamin A:____________________________
   Vitamin C:____________________________
   Vitamin D:____________________________
   Calcium:______________________________

3. Many beverages contain added sugars. Look at the label information for the beverages and determine which have added sugars. Rank the beverages from highest to lowest in added sugar content per standard serving size:
   (note: Milk contains 12 grams of natural sugar per 8 ounces, so subtract that amount from total sugar to determine added sugar content)

4. Look at the Energy Drink label(s). Are there any ingredients besides added sugar that might be of concern? Are there any ingredient that you aren't sure about? List the ingredients of concern.

5. Overall, what beverages do you think are the best choices for hydration and nutrition? Explain how you came up with your conclusions.