Eat Smart To Play Hard

What’s Cooking?

With so many different foods to choose from, it’s often hard to know what to put on our plates for a healthy diet. In this lesson, students discover how making healthy food choices and being physically active will help them grow, play, learn, and stay healthy. Curriculum standards in Math, Science, English Language Arts, and Health will be met as students engage in collaborative and hands-on learning activities.

FIRST TASTE: Engage (30 minutes)

1. Engage students by asking them, “What do cars, boats, and rocket ships need to keep going?” (Fuel) Next, ask, “Do people need fuel? Why?” Accept all answers. Ask students if they can remember a time when they were feeling sluggish and they didn’t have any energy. What did it feel like? What made them feel better?

2. If students don’t mention food, ask them, “Why do we eat?” Explain that food gives us energy, or “fuel,” for all sorts of activities—from running, playing ball, thinking, and talking, to something as simple as blinking our eyes.

3. Explain that it is important for all of us to move each day to be healthy. Ask students to think of physical activities they enjoy, like riding bikes or jumping rope. How do students feel after they have been physically active? How is physical activity good for their bodies? Accept all answers and list them on the board.

4. Ask students to think about how they can be more active. How can they inspire each other, friends, and family? As a class, create an Eat Smart To Play Hard tip poster. Choose 10 activities, along with helpful tips, to inspire everyone to move more each week. (For example: jump rope, dance to your favorite song, walk your dog.) Provide students with paper and art materials and ask them to draw healthy foods to illustrate the “eat smart” part of the message. For example, students could show fruits, vegetables, low-fat milk and yogurt, whole grains, and lean proteins. Encourage students to be creative in how they convey their food and activity message, such as showing a kid biking up a rainbow of fruits and vegetables, or tossing a MyPlate frisbee.

Recommended Pacing:
Session 1 (30 minutes) — First Taste
Session 2 (40 minutes) — Digging In
Session 3 (40 minutes) — Digesting It All

Essential Question:
Why is it important to eat a variety of foods from all food groups?

Learning Objectives:
Students will be able to...
• Identify what foods to eat more of and explain why.
• Name at least two reasons why it is important to eat foods from all five food groups for a healthy diet.
• Explain that foods have nutrients that help us grow and stay healthy.
• Discuss how that being physically active is part of a healthy lifestyle.

Subject Connections:
English Language Arts, Science, Health, Math

Materials & Preparation:
• Computer, CD or MP3 player with speakers
• Various art supplies (crayons, colored pencils)
• Original Song & Lyrics: Do/Be
• Student Reproducible 1: A Day in the Life of...
• Student Reproducible 2: Serving MyPlate to MyFamily
DIGGING IN: Explore (40 minutes)

5. Write the word nutrient on the board. Ask if anyone knows what a nutrient is. Help students understand that a nutrient is “something found in some foods that is good for you and helps you grow and stay healthy.”

6. Now ask students what they think it means to eat a nutritious food or meal. Explain to students that a nutritious food or meal provides many nutrients the body needs.

7. Play the song called Do/Be and ask students to listen to it carefully. The lyrics of the song introduce the idea that different foods do different things for our bodies. Remind students that in the last lesson, they learned that we need to eat foods from each of the five food groups. That’s because each food group gives us different nutrients we need to grow, play, learn, and be healthy. When we don’t fuel up with enough of the right kinds of foods, we can’t be our best, just like a rocket ship can’t blast off and soar through space if it doesn’t have enough of the right kind of fuel.

Some types of foods that many people do not get enough of are: fruits, vegetables, whole grains, low-fat milk and yogurt, and seafood. Some foods people eat too much of are: candy, cake, cookies, chips, sausages, hot dogs, and ice cream.

8. After playing the song once, ask the class what the song says about eating a variety of foods. For example, some foods give us energy or “fuel,” while some foods may help us keep from getting a cold. (Nutrients help our bodies DO the things we want and need, and they help us BE healthy.)

9. Play the song again and invite students to sing along.

10. Next, pass out the Day in the Life of… handout. Explain to students they will write a short story called A Day in the Life of… about their favorite fruit or vegetable and what that food does to help people. Alternatively, they may also choose to write a rhyming poem or song about their favorite fruit or vegetable.

11. Finally, ask students to write a brief description of what their favorite fruit or vegetable looks like. Let students take turns reading their descriptions out loud and see if other students can guess what it is. If there is time, allow students to draw a picture of their favorite fruit or vegetable. Display their stories next to their drawings on a bulletin board.

DIGESTING IT All: Explain, Evaluate (40 minutes)

**MyPlate Variety Math**

12. In this final activity, students will use math to practice making meals with foods from all five food groups. Have students work in pairs to answer the questions.

13. Tell students that their friend Sarah needs their help. She has to prepare MyPlate meals for herself and her two cousins. They are all moderately active 7-year-old girls. She is having trouble figuring out what counts. Have students answer the following word problems to help Sarah make the right decisions. Remind them to use MyPlate as a guide.
I. Sarah is counting fruits that she and her cousins will need for the day. Sarah has small oranges, peaches, and bananas. She needs three pieces of fruit for each person.

a. In total, how many pieces of fruit does she need for herself and her two cousins? (Nine)
b. What are some ways she can divide the fruit up among meals and snacks? (Answers will vary; for example: offer one fruit at each meal — breakfast, lunch, and dinner; serve fruit at breakfast and lunch and one for a snack.)

II. Sarah has two small bananas, one small orange, and two small peaches.

a. How many does she have in total? (Five)
b. How many more does she need? (Four)

III. Sarah is trying to decide what to have for dinner in a restaurant. She has two choices. Help her choose a meal that has a variety of food from all five food groups.

Meal Choice A is a turkey burger on a whole-grain bun with lettuce and tomato. It is served with baked beans and milk.

a. How many food groups are part of this meal? (Four)
b. How many different vegetables are part of this meal? (Three: lettuce, tomato, beans)
c. How many protein foods are part of this meal? (Two: turkey burger, and the beans could also be counted as a protein food.)
d. How many fruits does this meal have? (None)
e. How many dairy foods does it have? (One: milk)
f. Does the meal have something from the Grain Group in it? (Yes, the whole-grain bun.)
g. Does this meal provide foods from all five food groups? (Not quite — it is missing a fruit.)
h. What fruit could Sarah add to Choice A to help make half her plate fruits and vegetables? (Answers will vary; for example: a piece of fruit like an apple or a banana. Sarah could also have fruit as a snack later.)
Meal Choice B is spaghetti with tomato sauce and meatballs. It comes with a garden salad.

i. How many food groups are part of this meal? (Three)

j. How many vegetable items does it have? (Two: tomato sauce and the salad)

k. How many foods from the Protein Foods Group does it have? (One: the meatballs)

l. Does Sarah’s pasta dish have foods from all five food groups? (Not quite — it is missing food from the Dairy Group and the Fruit Group.)

m. What additional foods can Sarah add to Choice B so it will have all five food groups? (Answers will vary; for example: a glass of milk and a side of grapes.)

IV. Sarah is choosing vegetables for her cousins’ dinner. So far, she has broccoli for one dinner. She looks in the fridge to find something for another meal. This is what she finds: zucchini, tomato, cauliflower, spinach, corn, a plum, and a lemon.

a. How many of the foods count as a vegetable? (Five)

b. How many vegetables does she need if both of her cousins want two types of vegetables for their dinner? (Four)

SAVOR THE LEARNING: Elaborate

Home:
• Have students write a letter to a family member encouraging him/her to eat a variety of foods, meaning different foods from each food group, using the reproducible Serving MyPlate to MyFamily.

• Suggest that students try a new food at home and then report to the class about the food they tried and how they liked it. Post their new foods on the bulletin board under the title Our New Food Adventures.

FOOD FOR Thought

Eat smart to play hard: Eat fruits and veggies every day at meals, snacks, or for dessert. Try fruits and veggies of every color in the rainbow to give you the fuel to soar through your day like a rocket ship!

• Invent your own pizza using ingredients from each food group. What would you put on it?

EXTRA HELPINGS: Elaborate

(30 minutes)

MyPlate Variety Skits: Divide students into groups of five, so that each food group is represented. Ask them to think and talk about the Essential Question, “Why is it important to eat a variety of foods from all food groups?” Students will then work in their groups to create a short skit about how foods in their food groups contribute to healthy bodies. Tell them that their skits should express the benefits of eating specific foods in their food group. For example: (Dairy) milk and yogurt help our teeth and bones grow and stay strong. Emphasize that the foods work together to keep us healthy. Give every group a chance to perform its skit. You may want to invite other classes and parents to come view the performance so they can learn about MyPlate too!
What's your favorite fruit or vegetable? Imagine what it would be like to live a day in the life of your fruit or veggie. Write a short story, poem, or song about it.

Questions to think about and get you started:

1. Where does it live? Where does it grow? What it would do each day?
2. What it would see, hear, and feel? Where would it want to go?
3. What would it want to be when it grows up?

(my favorite fruit or veggie)
Write a letter to a family member explaining why it is important to eat foods from each food group. Offer ideas for a healthier meal. List the foods in your favorite meal, and draw a picture of them in the blank MyPlate below.

Try my favorite meal!

Fruits_____________________________________
Vegetables_________________________________
Grains____________________________________
Protein_______________________________________
Dairy___________________________________________

Dear

Name:_________________________________ Date:__________________________
“Sometimes” foods and “Switcheroos”

What’s Cooking?

In this lesson, students explore the concept of “sometimes” foods (foods that are higher in solid fats and added sugars), and learn that it is beneficial to eat less of them. There are “sometimes” foods that fit into a food group (for example, ice cream is in the Dairy Food Group) and others that are not part of a food group at all (for example, candy bars). Through multisensory, hands-on activities that meet education standards in English Language Arts, Science, Health, and Math, students will learn how to identify and make healthier choices with “Switcheroos.”

FIRST TASTE: Engage (20 minutes)

1. Begin a discussion by asking students to think about what makes them choose the foods they eat. Do they choose foods they like based on taste? Smell? What foods look like? Or do they choose food based on the name of the dish, because someone special prepared the food, or because it’s served on a special occasion?

2. Give students 5 minutes to work in pairs to share and talk about their favorite snacks and desserts. Encourage them to be descriptive with their words, and to explain why they like the snacks and desserts that they do. When they are done, ask each student to describe his or her partner’s favorite snack or dessert. Students should describe and explain the food in as much detail as they can for the class. What is the food? Why did their partner like it?

3. Next, ask them if there is any food they think they shouldn’t eat a lot of. Accept all answers. Can they think of any reasons?

DIGGING IN: Explore (60 minutes)

Part A: Added Sugars (30 minutes)

4. Ask kids to think about foods that have sugar that is added to them when they are prepared, such as frosted cereals, cookies, and lemonade. Ask why sugar might be added to foods. (For many foods, sugar is added to make the foods taste sweet.) What are some other examples of foods that have sugars added to them when they are made? (Candy, muffins, cake, ice cream, regular sodas, fruit punch, sweet tea,
sports drinks, pudding, some yogurts, and some applesauce) What are some examples of foods that taste sweet but do not have added sugars? (Fruits!)

5. Next, divide the samples of foods into two groups and display them on two tables. Note: Use at least five food/beverage items per group for this experiment. If you have a larger class, use more. Choose what works best for your class.

6. Divide the class into two groups and place a bowl of sugar cubes on each table. Show students one regular cube of sugar (4 grams) and explain that each cube equals 1 tsp of sugar (or ½ tsp if using smaller 2-gram sugar cubes). Tell students that they will need to work together to guess how much added sugar is in each food or beverage item. Once students have made their guesses, they should stack the corresponding number of sugar cubes on a dish in front of each food or beverage. Note: Ask the students not to eat the sugar cubes, because they will need them all for the activity. If you are not able to find sugar cubes, you can have students measure teaspoons of sugar into clear plastic cups in front of each food or beverage item.

7. Invite students to share and explain their guesses. How did they do? Reveal how much added sugar is actually found in each food and beverage item. Note: These measurements are based on estimates of similar food items. Sugar cubes equal approximately 4 g or 1 tsp each, unless they are the smaller cubes, in which case they equal 2 g or ½ tsp.

- Regular soda (12-fl oz can) = 7.9 tsp added sugars, or almost 8 cubes
- Fat-free milk (not flavored; 8 fl-oz carton or 1 cup) = no added sugars, or 0 cubes
- Fat-free chocolate milk (8-fl oz carton or 1 cup) = 3.5 tsp added sugars, or 3 ½ cubes
- 100% orange juice (8-fl oz carton or 1 cup) = no added sugars, or 0 cubes
- Lemonade (8-fl oz glass) = 5.5 tsp added sugars, or 5 ½ cubes
- Two medium chocolate chip cookies = 1.6 tsp added sugars, or a little more than 1 ½ cubes
- Microwave low-fat popcorn (snack-sized bag, 1.3 oz) = no added sugars, or 0 cubes
- Apple (medium) = no added sugars, or 0 cubes
- Two graham cracker squares = 1 tsp added sugars, or 1 cube
- Milk chocolate candy bar (1.6 oz) = 4.8 tsp added sugars, or almost 5 cubes
- Pancake syrup (2 Tbsp) = 6 tsp, or 6 cubes

How did students do? Were their guesses close? Were there any surprises? Which of the beverages are lowest in added sugars? (Unflavored milk, 100% juice, or even water) Which of the foods would make the healthiest snack? (Apple, low-fat popcorn, graham crackers) Pancake syrup is an example of an ingredient that adds sugars to foods. Ask students if they can think of others. (Honey, brown sugar, powdered sugar, corn syrup, molasses)

8. Ask students to share what they think can happen if they eat too much sugar. What are some other reasons that drinking or eating foods with lots of added sugars might not be healthy? Let students offer their answers. Explain that too much sugar can lead to tooth decay or weight gain. Foods with added sugars can also fill us up and not leave room for healthier foods that give our bodies the good stuff we need to look and feel our best. This is why foods that are high in added sugars are “sometimes” foods, foods we eat only some of the time and in smaller amounts.

9. As a class, brainstorm ideas and recipes of healthy snacks, or “Switcheroos,” that taste good without the added sugars. Remind them to look at MyPlate for ideas from each food group. List your ideas on the board or on a poster to display in your classroom.

Natural vs. Added Sugars: Sugars are found naturally in fruits (fructose) and in milk and other dairy products (lactose). These naturally occurring sugars are part of the overall healthy package of nutrients that these foods provide. Added sugars, however, add calories but no nutrients to foods. That’s why we are encouraged to eat foods with fewer added sugars.
Part B: Solid Fats (30 minutes)

10. Show the class a sample of butter and a sample of vegetable oil. Ask if anyone knows what types of foods butter and vegetable oil are. (They are fats.) Ask for volunteers to describe the difference between the butter and the oil. (The important difference is that the butter is a solid and the oil is a liquid.) Can any students describe the characteristics of a solid and characteristics of a liquid? We call butter a solid fat and vegetable oil a liquid fat. Solid fats, like butter and stick margarine, are solid at room temperature. Liquid fats, like olive oil or canola oil, are liquid at room temperature.

11. Ask if anyone knows why we might want to think about the types of fats that we eat. Accept all answers.

12. Divide the class into small groups and set them up at different stations. Each station will have a sample of butter (2 Tbsp in a dish), a sample of vegetable oil (2 Tbsp in a dish), and enough straws for everyone in the group. Have the students put one end of the straw in the vegetable oil. Ask them to share what they observe when they pull out the straw. What do they notice? (The oil drains out of the straw. It does not clog up the straw.) Give students a chance to dip the straw in and out of the oil and watch what happens to the oil when they do this.

13. Now have them put the other end of the straw into the butter and then observe what happens when they pull out the straw. What do they notice? (The butter clogs up the end of the straw.)

14. Explain that liquid fats are healthier for our hearts than solid fats. Explain that our hearts pump blood through our bodies using little tubes (like straws) called arteries and veins that carry blood to the rest of our body parts. We need our heart and these tubes to be healthy so that our body functions well.

15. Ask students if they can think of any foods that have solid fats in them, and are therefore “sometimes” foods. Possible examples include:
   - Hot dogs
   - Sausage

16. Ask volunteers to explain why it would be smart for people to not eat too many foods with solid fats in them. (These foods make it harder on our hearts. And they can fill us up before we get what we need from other healthy foods.)

DIGESTING IT ALL: Explain, Evaluate

(40 minutes)

17. Summarize and reflect on the lesson by asking the class the Essential Question: “What foods should I eat less of and why?” Invite students to share what they have learned. Remind students that foods and beverages with added sugars and solid fats can fill us up and not leave room for foods we need to eat to get nutrients.

18. Divide the class into pairs and pass out the handout “Sometimes” Foods and “Switcheroos” to each pair. Explain to students that in this activity they will look at five food examples that are high in added sugars or solid fats, known as “sometimes” foods and work together to come up with healthier alternatives, or “Switcheroos.”

19. After the students have had 10 – 15 minutes to discuss and complete the handout, regroup to allow them to share their answers with the class. Write the names of each food group as headings on the board. (There should be a “Fruits” heading, a “Vegetables” heading, etc.)
20. Invite each pair to read the healthier food alternatives it came up with while you list them under the appropriate food group heading on the board. When each pair has finished reading off its “Switcheroo” foods, ask the students what they notice about the healthy alternatives. (If it doesn’t come up, point out that there are a wide variety of healthy alternatives in each food group.) As a class, vote for your favorite “Switcheroos.” Write these on the board or on a poster and display where students eat their snacks and lunch.

SAVOR THE LEARNING: Elaborate
Cafeteria:
• Students brainstorm creative menu names for fruit and vegetable dishes served at lunch and write them up for the school food service director.

Home:
• Let parents know ahead of time that they will receive a “Switcheroo” recipe card to complete with their child. Ask parents to help their child write a recipe on the “Switcheroo” Recipe handout that their family enjoys in place of foods that are high in solid fats or added sugars. Have your class create a Healthy Class Cookbook using everyone’s “Switcheroo” recipes. You can also include some of your students’ other ideas for “Switcheroos” discussed in class. Share the cookbooks with parents.

EXTRA HELPINGS: Elaborate (30 minutes)
Poster Power! Have students create colorful posters using cutout pictures from magazines or supermarket circulars to create an advertisement that shows “sometimes” foods and “Switcheroos.” Display these posters in your school hallway or cafeteria to share with the rest of the school community.

“Switcheroo” Answers (For Student Reproducible 1: “Sometimes” Foods and “Switcheroos”)
Fruit-flavored gummies, French fries (fried in solid fat), cookies, ice cream, and hot dogs are “sometimes” foods because they are high in solid fats and/or added sugars. Hot dogs are also high in sodium (salt). Below are some examples of healthier alternatives from the five food groups.

Fruit: Apples, bananas, berries, melon, grapes, oranges, peaches, pears, pineapple, plums, mangos, raisins, or 100% fruit juice. Fresh, frozen, canned in juice, and dried fruits (without added sugars) are all good choices. Note: Fruit-flavored gummies may not contain any actual fruit — such foods would not be part of the Fruit Group.

Vegetable: Broccoli and carrots with low-fat dip, a side salad with dressing, cherry tomatoes, baked potato with salsa, baked sweet or white potato wedges (prepared with oil), vegetable soup, or black beans and corn.

Grain: Whole-wheat crackers, popcorn, brown rice cakes, whole-corn tortilla, a whole-wheat English muffin half, or whole-grain cereal.

Dairy: Fat-free and low-fat milk, yogurt, and cheese. Fat-free and low-fat frozen yogurt and ice cream contain less fat than regular ice cream, but may still be high in added sugars.

Protein Foods: Bean dishes (such as chili with kidney beans), seafood (such as tuna canned in water), eggs, chicken or turkey without the skin, lean roast beef, extra lean hamburger meat, lean and lower sodium ham, nut or seed butter (such as peanut butter or sunflower seed butter), or processed soy products (such as veggie burgers).

• Invent a new “Super Snack” that allows you to eat smart to play hard. Try a super smoothie with plain low-fat yogurt and fresh berries. Make a contest out of it. Invite your friends and family to have a taste test and vote on their favorite!

• Make treats a “treat” by eating them sometimes, not every day.
Work with your partner to complete the following questions about “sometimes” foods and think of a healthy “Switcheroo” that you can eat instead.

1. Instead of fruit-flavored gummies, what is something from the Fruit Group you could eat or drink?
2. Instead of French fries (fried in solid fat), what is a healthier choice from the Vegetable Group?
3. Instead of cookies, what is a healthier choice from the Grain Group?
4. Instead of ice cream, what is a healthier choice from the Dairy Group?
5. Instead of a hot dog, what is a healthier choice from the Protein Foods Group?

<table>
<thead>
<tr>
<th>WHY IS THIS A “SOMETIMES” FOOD?</th>
<th>WHAT IS A GOOD “SWITCHEROO?”</th>
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<tbody>
<tr>
<td>(A food that we want to eat only some of the time. These foods have more added sugars or solid fats or both.)</td>
<td>(A healthier choice from a food group. It does not have a lot of solid fats or added sugars.)</td>
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</table>
Dear Parent, your child is learning about making healthy food choices from the five food groups (Fruit, Vegetable, Protein Foods, Grain, Dairy). In class, we have learned about “sometimes” foods (foods with a lot of added sugars and solid fats) and “Switcheroos” (healthier food choices that are lower in solid fats and added sugars). Please work with your child to fill in the recipe card below showing your family’s favorite healthy meal or snack. We will be making a class cookbook that includes everyone’s recipes.

Name of Recipe:_____________________________________________________

What do you like most about this recipe?____________________________________

What food groups are part of this recipe? HINT: For example, if your recipe has broccoli in it, circle the Vegetable Group. If it has noodles in it, circle the Grain Group. Visit http://www.chooseMyPlate.gov to see what is in each food group.

Makes_________ Servings          Serving size:________________________

Ingredients (What Is In It):
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

How You Make It:
1.________________________________________________________________________________
2.________________________________________________________________________________
3.________________________________________________________________________________
4.________________________________________________________________________________
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