Lesson Overview

Students will learn about the 5 food groups and eating foods from each group to stay healthy and provide the body with different nutrients. Students will also learn the difference between “whole” vs. “refined” grains and how to determine if it is a whole grain. Finally, students will review 4 key messages to a healthier lifestyle.

Lesson Objectives

» Identify the 5 sections of MyPlate: vegetables, fruits, grains, protein, and dairy.
» Define a “whole” vs. “refined” grain.
» Determine if a food is a whole grain.
» List 4 key ways to a healthier lifestyle.

Arizona Department of Education (ADE) Academic Standards

English Standards

Fifth Grade

5.RI.1, 5.RL.1 Quote accurately from a text when explaining what the text says explicitly and when drawing inferences from the text.

5.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 5 topics and texts, building on others’ ideas and expressing their own clearly.

c. Pose and respond to specific questions by making comments that contribute to the discussion and elaborate on the remarks of others.

Sixth Grade

6.SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
c. Pose and respond to specific questions with elaboration and detail by making comments that contribute to the topic, text, or issue under discussion.

**Seventh Grade**

7. SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

c. **Pose questions that elicit elaboration and respond to others’ questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.**

**Eighth Grade**

8. SL.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 8 topics, texts, and issues, building on others’ ideas and expressing their own clearly.

c. **Pose questions that connect the ideas of several speakers and respond to others' questions and comments with relevant evidence, observations, and ideas.**

**Physical Education Standards**

**Strand 3** Participates regularly in physical activity both during and beyond the structured physical education class.

**Concept 1: Physical Activity in a Physical Education Program**

PO 2. Engage in a balance of health- and skill-related activities during structured physical education classes

**Concept 2: Physical Activity Outside a Physical Education Program**
PO 2. Demonstrate an active lifestyle through documentation of daily activity

Strand 5 Exhibits responsible personal and social behavior that respects self and others in physical activity settings.

  Concept 1: Personal Behavior

PO 4. Participate positively in class activities

Strand 6 Values physical activities for health, enjoyment, challenge, self-expression, and/or social interaction.

  Concept 1: Values Physical Activity

PO 1 Identify at least one enjoyable activity in which he/she regularly participates

Advanced Preparation

✓ Make sure Powerpoint and projection is set up; bring up PowerPoint Presentation via website.
✓ Plan for handouts or possible activity items.

Materials and Equipment

✓ MyPlate poster
✓ MyPlate handouts (for student)
✓ Food Models (optional for demonstration)
✓ School Lunch Menu (optional print off from school website for discussion)

Incentive Gifts

» MyPlate Activity Books
» MyPlate paper plates
» MyPlate Pens
» MyPlate Pencils
» MyPlate Colored Pencils
» MyPlate Magnets
Estimated Time

30 minutes for PowerPoint, additional time for the activities.

Presentation

This lesson plan is designed to help assist you and students in making healthy eating choices using the new MyPlate. Below are the notes from each slide within the MyPlate Powerpoint. It is designed to be adaptable for grades 5th through 8th.

Slide #1

Today we will be talking about MyPlate.

MyPlate shows us the healthy foods to eat so we can be healthy teens!

Slide #2

Today, class, we will be talking about a few things!

First, we will talk about the different colors of MyPlate and how each one represents a food group. We will talk about vegetables, fruits, grains, protein, and dairy.

Also, we will explain the differences of “whole” grains versus “refined” grains, allowing us to then determine if a food is a whole grain food.

Lastly, we will discuss ways to live a healthier lifestyle.

Slide #3

We are constantly having to make choices about the foods we eat each day- from the breakfast time to dinner. And the snacks in between.

Sometimes we don’t realize that the food choices we make today will determine how healthy we will be when we get older!
For this reason, it is important to get foods from all the 5 food groups. The 5 food groups include fruits, vegetables, grains, protein, and dairy.

**Slide #4**

MyPlate illustrates the five food groups using a familiar mealtime visual, a place setting.

**Slide #5**

First we will talk about each food group!

**Slide #6**

Q.) Can someone name a vegetable?  
A.) Answers Vary. Examples include a potato, carrot, broccoli, eggplant, corn, bell peppers, cabbage, spinach, cauliflower, onion, mushroom, etc.

A key point to remember is to make half your plate vegetables and fruits. Like MyPlate shows. Vegetables can be eaten with meals or as snacks.

Q.) Can someone give me a vegetable snack?  
A.) Answers vary. Some include celery with peanut butter, mini carrots with ranch dressing, bell pepper with hummus.

Variety is important, too, because each kind of vegetable offers different benefits. Eat a rainbow of colors each day! Each color offers different benefits to keep your body healthy!

Vegetables can be consumed in a variety of ways. Fresh, canned, frozen, and 100% vegetable juice all count!

Also, always remember to wash your fresh vegetables, as they may contain dirt, bacteria, and/or chemicals that may be harmful to your body.

**Slide #7**

Consuming vegetables is a great way to get vitamins and minerals. Vitamins and minerals are things found in foods that your body needs to stay healthy and grow. Two vitamins often found in vegetables are vitamin A and C.

Vegetables also provide you fiber which is necessary to keep your digestive system of your “food tube” healthy. (We’ll talk more about this food tube later.)
Additionally, eating a diet high in veggies and fruits may reduce your risk of heart disease, type 2 diabetes, cancers and other diseases.

**Slide #8**

Q.) Does anyone know what part of the body vitamin A is good for? (If students don’t know the answer, point to your eyes.)  
A.) That’s right! Vitamin A is good for the eyes! It helps us see in the dark!  
Q.) Does anyone know what part of the body vitamin C is good for?  
A.) Vitamin C is helps keep us from getting sick! It also helps heal our cuts and bruises when we fall. It keeps our gums in our mouth healthy, too!

**Slide #9**

Both fruits and vegetables provide us fiber. Fiber is necessary to keep our digestive system or your “food tube” healthy. Our digestive system is a part of the body that helps us break down our foods so our bodies can use the nutrients! Fiber helps clean out our digestive system so that it can work properly.  
Q.) Can anyone guess the length of your digestive system?  
A.) Accept a few answers. It is about 20 feet long.

**Slide #10**

As mentioned before, the goal is to make half your plate fruits and veggies.  
Q.) Can someone name a fruit for me?  
A.) Answers vary. Examples include an apple, banana, raspberry, pear, plum, kiwi, grapes, orange, watermelon, pear, cherries, etc.  
Just like vegetables, fruits can be eaten with meals or as snacks.  
Q.) Can someone give me an idea of a snack that is a fruit?  
A.) Examples include an orange, a banana, raisins, apples with peanut butter, etc.  
Try to eat a variety of colors. Each color offers different benefits to keep your body healthy!  
Fruit can come from various sources, such as fresh, canned, frozen, dried, or 100% fruit juice.
We should try to limit our serving of 100% fruit juice to 1 cup (8 ounces) per day so that we can benefit from the nutrients found only in the whole fruit. Eating whole fruits will provide more fiber.

Additionally, choose canned fruits packaged in their own juice and/or water rather than syrups.

**Slide #11**

Like vegetables, fruits provide many nutrients! They provide us many vitamins and minerals, particularly vitamin A and C, that keep our bodies healthy and help us to grow.

Additionally, eating a diet high in fruits may reduce your risk of heart disease, type 2 diabetes, cancers and other diseases.

**Slide #12**

Q.) Can someone raise their hand and tell me what vitamin A is good for? Vitamin C?

A.) Vitamin A helps keep our eyes healthy and allows us to see in the dark. Vitamin C helps keep us from getting sick. It also helps heal our cuts and bruises when we fall. It keeps our gums in our mouth healthy, too!

**Slide #13**

Both fruits and vegetables provide us fiber.

Q.) What is fiber good for again?

A.) Fiber is necessary to keep our digestive system or your “food tube” healthy. Our digestive system is a part of the body that helps us break down our foods so our bodies can use the nutrients! Fiber helps clean out our digestive system so that it can work properly.

**Slide #14**

Q.) Can someone name a grain food for me?

A.) 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 of grain products.

Q.) Can someone give me an example of a grain food that they would eat as part of a meal or as a snack.

A.) Answers vary.

**Slide #15**
Grains are an important source of many nutrients, including vitamins (B vitamins) and fiber. These vitamins provide us energy. Energy to run, play and pay attention in class. Fiber, like we talked about, is also very important for keeping your food tube healthy.

**Slide #16**

Additionally, grains consist of two types: whole and refined. Whole grains contain the entire kernel (which includes the bran, germ and endosperm.) Refined grains have been milled (a process which removes the bran and germ.) Milling removes such nutrients as fiber and some vitamins. Whole grains contain more nutrients and fiber than refined grains.

We should aim to make at least ½ our grains whole.

**Slide #17**

Above are some examples of whole grains versus refined grains.

In order to determine if a product is a whole grain, we should check the ingredient list.

To the right of the slide, an ingredient list is shown. It is taken from a package of 100% Whole Wheat Hot Dog Buns. Note the first ingredient is “100% Whole Grain Wheat.” This indicates this product is a whole grain. We should always look at the ingredient list to determine if a food is a whole grain. The first ingredient should state, “100% whole grain.”

**Slide #18**

Q.) This slide shows the ingredient lists, one being that from a whole grain product and the other from a refined grain product. Using the information you learned on the previous slide, what one do you think is the whole grain product? Raise your hand if you think A.) is the whole grain. Raise your hand if you think B.) is the whole grain.

A.) The answer is B.) Why? Because the first ingredient is 100% whole wheat flour.

**Slide #19**

Answer to slide 18

**Slide #20**

This portion size of spaghetti (grains) looks like way more than the ¼ of the plate serving that’s recommended, doesn’t it?!

Q.) What food groups are missing?

A.) Fruits, vegetables (although, technically, spaghetti sauce contains tomatoes) and dairy (which we will talk about soon.) Variety of food groups is key!
Slide #21

Q.) Can someone name a food that belongs in the protein group?

A.) All foods made from meat, poultry, seafood, beans, eggs, processed soy products, nuts, and seeds are considered part of the Protein Foods Group. As shown by the MyPlate icon, protein should take up about ¼ of your plate. Choose lean turkey, roast beef, ham, or lean ground beef instead of meats with more fat, such as regular bologna or salami.

Q.) What are some examples of snacks that contain protein?

A.) Nuts, hard boiled egg, sunflower seeds, peanut butter on apples

Slide #22

Protein is essential to keep our muscles strong! It serves to build other parts of our body, too. It helps your hair to be healthy (and pretty, for girls). Protein also helps your skin and blood to be healthy.

Slide #23

Q.) Can someone name a food that belongs in the dairy group?

A.) Examples include milk, cheese, yogurt, ice cream and milk alternatives such as soy, rice, and almond milk.

Foods in the Dairy group are important because they provide us calcium. We’ll talk about why calcium is good for us in a bit. The goal is to consume dairy products that are low in fat. Examples include low-fat or fat-free milk.

Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not considered part of the Dairy Group.

For those who are lactose intolerant, smaller portions (such as 4 fluid ounces of milk) may be well tolerated. Lactose-free and lower-lactose products are also available.

Slide #24

Q.) Does anyone know why calcium is good for our bodies?

A.) Calcium helps give us strong bones and teeth.

Think of your bones as a bank. If you put money in the bank today and every day until the age of 30, do you think your bank account would have a lot of money in it? Yes. The same thing is true for your bones. Every time you eat foods rich in calcium, your body makes a deposit or
adds calcium to your bones. The more calcium you put in your bone bank today, tomorrow and every day after that the stronger your bones will be at age 30, 50, even 70.

**Slide #25**

As a teenager, you need 3 cups from the Dairy Group. By the time you are 18 or graduating from high school you will have 90% of all the bone density you will ever have. By the time you are 30 years old, your bone density will not increase anymore and you will actually start to lose bone mass or calcium from your bones.

Additionally, try to choose low-fat (1%) or skim milk.

**Slide #26**

That wraps up the section on MyPlate and the foods groups!

**Slide #27**

Now we’ll end with the key messages that go along with the MyPlate.

**Slide #28**

We should enjoy our food, but eat less. This statement means we should avoid oversized portions. The total number of calories we consume is what is important to our body weight and overall health.

Watch portion sizes…

**Slide #29**

People tend to eat and drink more when they are given larger portions. To avoid this temptation, choose smaller portion sizes.

**Slide #30**

We should aim to make at least half of our grains to be *whole grains*. Whole grains contain more nutrients that help keep our bodies healthy!

**Slide #31**

Aim to make half your plate fruits and vegetables. Variety is important! This variety will add different colored fruits and vegetables, each important for your health.

**Slide #32**

Increase your intake of fat-free or low-fat milk and milk products, such as milk, yogurt, cheese, or fortified soy beverages.
**Slide #33**

Drink fewer sugar-sweetened beverages. Sugar-sweetened beverages include full-calorie soda, energy drinks, fruit drinks, flavored water, sports drinks and sweetened iced tea. These beverages provide excess calories and few to no essential nutrients to the diet.

Drink more water, dairy beverages, and 100% fruit juice (1 cup/day at the most) instead.

**Slide #34**

Kids should aim for 60 minutes of physical activity per day, most days of the week.

Physical activity simply means movement of the body that uses energy. Walking, gardening, climbing the stairs, playing soccer, or dancing are all examples of being active.

To avoid getting bored, do things you enjoy! Make it fun!

**Slide #35**

Q.) Name the 5 sections of MyPlate.

A.) Five food groups are shown on MyPlate. They are fruits, vegetables, proteins, grains, and dairy.

Q.) Define a “whole” vs. “refined” grain.

A.) A **whole grain** is one that contains the entire grain kernel, thus containing more nutrients and fiber. A **refined grain** has been milled, a process that removes some of its nutrients and fiber.

Q.) What is the best way to determine if a food is a whole grain?

A.) Check the ingredient list. The first ingredient should be “100% Whole Grain Wheat.”

Q.) What are the 4 key messages we discussed that can lead us to a healthier lifestyle?

A.) The 4 key messages are as follows:

1. Enjoy your food but eat less; avoid oversized portions.

2. Switch to fat-free or low-fat (1%) milk.

3. Drink fewer sugar-sweetened beverages. Drink more water instead.

4. Be physically active!

**Slide #36**

That wraps up the presentation on MyPlate.
For more information, please visit www.ChooseMyPlate.gov

Let’s now do an activity!

**Background information**

You may want to read this section before presenting to give yourself a little more information about the slides and lesson plan.

MyPlate illustrates the five food groups (various colors) that are the building blocks for a healthy diet using a familiar image—a place setting for a meal. Before you eat, think about what goes on your plate or in your cup or bowl. Below is a little more information from each food group.

**Vegetable:**

Any vegetable or 100% vegetable juice counts as a member of the Vegetable Group (green group). Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed. Vegetables are organized into 5 subgroups, based on their nutrient content, the darker the vegetable the better.

Eating vegetables is important because they provide vitamins and minerals and most are low in calories. Vegetables are naturally low in fat and calories, none have cholesterol. Vegetables are important sources of many nutrients, dietary fiber, vitamin A, and vitamin C. Vitamin A keeps eyes and skin healthy and helps to protect against infections. Vitamin C helps heal cuts and wounds and keeps teeth and gums healthy. Vitamin C also aids in iron absorption.

**Fruit:**

Any fruit or 100% fruit juice counts as part of the Fruit Group. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed.

Eating fruit provides health benefits just like vegetables. People who eat more vegetables and fruits as part of an overall healthy diet are likely to have a reduced risk of some chronic diseases. Fruits provide nutrients vital for health such as dietary fiber, and vitamin C. Most fruits are naturally low in fat, sodium, and calories. None have cholesterol. Vitamin C is important for growth and repair of all body tissues, helps heal cuts and wounds, and keeps teeth and gums healthy.

Discover the many benefits of adding vegetables and fruits to your meals. They are low in fat and calories, while providing fiber and other key nutrients. Most Americans should eat more than 3 cups—and for some, up to 6 cups—of vegetables and fruits each day. Vegetables and fruits don’t just add nutrition to meals. They can also add color, flavor, and texture.

**Key message:** Remember; make half your plate fruits and vegetables.
Healthy reasons to eat a rainbow of colorful fruits and vegetables

Red fruits and vegetables contain natural plant pigments called "lycopene" or "anthocyanins." Lycopene in tomatoes, watermelon and pink grapefruit, for example, may help reduce risk of several types of cancer. Anthocyanins in strawberries, raspberries, red grapes and other fruits and vegetables act as powerful antioxidants that protect cells from damage. Antioxidants are linked with keeping our hearts healthy, too.

These are some examples of the red group:

- Red apples
- Beets
- Red cabbage
- Cherries
- Cranberries
- Pink grapefruit
- Red grapes
- Red peppers
- Pomegranates
- Red potatoes
- Radishes
- Raspberries
- Rhubarb
- Strawberries
- Tomatoes
- Watermelon

Orange/yellow fruits and vegetables are usually colored by natural plant pigments called "carotenoids." Beta-carotene in sweet potatoes, pumpkins and carrots is converted to vitamin A, which helps maintain healthy mucous membranes and healthy eyes. Scientists have also reported that carotenoid-rich foods can help reduce risk of cancer, heart disease and can improve immune system function.

Some examples of the orange/yellow group include:

- Yellow apples
- Apricots
- Butternut squash
- Cantaloupe
- Carrots
- Grapefruit
- Lemons
- Mangoes
- Nectarines
- Oranges
- Papayas
- Peaches
- Pears
- Yellow peppers
- Persimmons
- Pineapple
- Pumpkin
- Rutabagas
- Yellow summer or winter squash
- Sweet corn
- Sweet potatoes
- Tangerines
- Yellow tomatoes
- Yellow watermelon

Green fruits and vegetables are colored by natural plant pigment called "chlorophyll." Some members of the green group, including spinach and other dark leafy greens, green peppers, peas, cucumber and celery, contain lutein. Lutein works with another chemical, found in corn, red peppers, oranges, grapes and egg yolks to help keep eyes healthy.

Some leafy greens, like collards and kale, are particularly rich in calcium, which helps keep your teeth and bones strong and reduces your overall risk for osteoporosis. Calcium also contributes to muscle function and blood-pressure management.

Some examples of the green group include:

- Green apples
- Artichokes
- Asparagus
- Avocados
- Green beans
- Broccoli
- Brussels sprouts
- Green cabbage
- Cucumbers
- Green grapes
- Honeydew melon
- Kiwi
- Lettuce
- Limes
- Green onions
- Peas
- Green pepper
- Spinach
- Zucchini
Blue/purple fruits and vegetables are colored by natural plant pigments called "anthocyanins." Anthocyanins in blueberries, grapes and raisins act as powerful antioxidants that protect cells from damage. They may help reduce risk of cancer, stroke and heart disease. Other studies have shown that eating more blueberries is linked with improved memory function and healthy aging.

These are some examples of the blue/purple group:

- Blackberries
- Blueberries
- Eggplant
- Figs
- Juneberries
- Plums
- Prunes
- Purple grapes
- Raisins

Grain:

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 of grain products.

Grains are divided into 2 subgroups, Whole Grains and Refined Grains.

Whole grains contain the entire grain kernel — the bran, germ, and endosperm.

Examples include:

- whole-wheat flour
- bulgur (cracked wheat)
- oatmeal
- whole cornmeal
- brown rice

Refined grains have been milled, a process that removes the bran and germ. This is done to give grains a finer texture and improve their shelf life, but it also removes dietary fiber, iron, and many B vitamins.
Some examples of refined grain products are:

- white flour
- de-germed cornmeal
- white bread
- white rice

Most refined grains are enriched. This means certain B vitamins (thiamin, riboflavin, niacin, folic acid) and iron are added back after processing. Fiber is not added back to enriched grains. Check the ingredient list on refined grain products to make sure that the word "enriched" is included in the grain name. Some food products are made from mixtures of whole grains and refined grains.

Consuming whole grains as part of a healthy diet may reduce the risk of heart disease. Consuming foods containing fiber, such as whole grains, as part of a healthy diet, may reduce constipation. Some vitamins found in whole grains play a key role in metabolism – they help the body release energy from protein, fat, and carbohydrates. These vitamins are also essential for a healthy nervous system.

Dietary fiber from whole grains or other foods may help reduce blood cholesterol levels and may lower risk of heart disease, obesity, and type 2 diabetes. Fiber is important for proper bowel function and it helps reduce constipation. Fiber works like a scrub brush cleaning our food tube (digestive tract), keeping our insides healthy! A healthy food tube helps us make use of the foods we eat. Fiber-containing foods such as whole grains also help provide a feeling of fullness with fewer calories.

Key Message: Make at least half of your grains whole grains.

**Protein:**

Protein foods include both animal (meat, poultry, seafood, and eggs) and plant (beans, peas, soy products, nuts, and seeds) sources. We all need protein—but most Americans eat enough, and some eat more than they need. How much is enough? Most people, ages 9 and older, should eat 5 to 7 ounces* of protein foods each day.

Proteins function as building blocks for bones, muscles, cartilage, skin, and blood. They are also building blocks for enzymes, hormones, and vitamins. Vitamins found in this food group serve a
variety of functions in the body. They help the body release energy, play a vital role in the function of the nervous system, aid in the formation of red blood cells, and help build tissues.

**Dairy:**

The Dairy Group includes milk, yogurt, cheese, and fortified soymilk. Foods made from milk that have little to no calcium, such as cream cheese, cream, and butter, are not. Calcium-fortified soymilk (soy beverage) is also part of the Dairy Group. Dairy foods provide calcium, vitamin D, potassium, protein, and other nutrients needed for good health throughout life. Choices should be lowfat or fat-free—to cut calories and saturated fat. How much is needed? Older children, teens, and adults need 3 cups* a day, while children 4 to 8 years old need 2½ cups, and children 2 to 3 years old need 2 cups.

Calcium is used for building bones and teeth and in maintaining bone mass. Dairy products are the primary source of calcium in American diets. Diets that provide 3 cups or the equivalent of dairy products per day can improve bone mass. The intake of dairy products is especially important to bone health during childhood and adolescence, when bone mass is being built.

**Key Message:** Switch to fat-free or low-fat (1%) milk.

**Physical Activity**

Physical activity simply means movement of the body that uses energy. Walking, gardening, briskly pushing a baby stroller, climbing the stairs, playing soccer, or dancing the night away are all good examples of being active. For health benefits, physical activity should be moderate or vigorous intensity.

Children and adolescents should do 60 minutes or more of physical activity each day. Most of the 60 minutes should be either moderate- or vigorous intensity aerobic physical activity, and should include vigorous-intensity physical activity at least 3 days a week. As part of their 60 or more minutes of daily physical activity, children and adolescents should include muscle-strengthening activities, like climbing, at least 3 days a week and bone-strengthening activities, like jumping, at least 3 days a week. Children and adolescents are often active in short bursts of time rather than for sustained periods of time, and these short bursts can add up to meet physical activity needs. Physical activities for children and adolescents should be developmentally-appropriate, fun, and offer variety.

**Being physically active can help you:**

- Increase your chances of living longer
- Feel better about yourself
- Decrease your chances of becoming depressed
- Sleep well at night
- Move around more easily
• Have stronger muscles and bones
• Stay at or get to a healthy weight
• Be with friends or meet new people
• Enjoy yourself and have fun

References:

MyPlate:  http://www.choosemyplate.gov/

Fruit and Veggies, More Matters:  http://www.fruitsandveggiesmorematters.org/

Activities

See activities folder for various age appropriate activities.