

Healthy Eating Patterns

Grade Band: K-2

Student Objectives:

- Understand how food choices can help contribute to our good health
- Learn how balance, variety, and serving size help contribute to healthy eating patterns
- Measure recommended daily serving sizes of different food groups for their age
- Create a visual representation of one or more elements of healthy eating patterns

Materials:

- Measuring cups, measuring spoons, bowls, and a food scale
- Student Activity Sheet: Healthy Eating Puzzle (one per student)
- Student Activity Sheet: My Plate (one per student)
- Student Activity Sheet: How Much Is Just Right? (one per student)
- One food model or real food from each food group (alternatives are given if it is not possible to bring in food)
- Various art materials including crayons, markers, scissors, colored pencils, and blank paper or construction paper
- A copy of Goldilocks and the Three Bears. If that story is not available, other options include: Goldilocks and the Three Dinosaurs, The Very Hungry Caterpillar, or Cloudy With a Chance of Meatballs

Suggested Time Frame: 2-3 class periods (based on 45-minute intervals)

Instant Expert:

According to the Centers for Disease Control and Prevention (CDC), **health literacy** is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make healthy choices, to think about and practice health-enhancing skills, to say kind words, and to learn about feelings and how to express them.”

An important foundation of helping children become health-literate is teaching them about **wellness**. Wellness is more than just being healthy. It is the active process of becoming aware of and making choices toward a healthy and fulfilling life.

In the first set of lessons, students learned about different types of wellness. One of those was **physical wellness**. Physical wellness is wellness related to our bodies. This includes taking care of our bodies, being physically active, having good personal hygiene, having healthy eating patterns and nutrient intake, and being safe.

In this lesson, we will focus on the physical wellness subcomponent of nutrition. Students learn that different choices they make about what they eat and drink can fit together like a puzzle, all leading to what is called a healthy eating pattern. We know that nutrition and health are closely related, and evidence shows that healthy eating patterns are associated with positive health outcomes. Luckily, there are many choices we can make that support healthy eating patterns.

The Dietary Guidelines 2015-2020 offer guidance about various healthy eating patterns, including U.S., Mediterranean, and vegetarian. The healthy U.S.-style eating pattern is based on the foods Americans typically consume, but in nutrient-dense forms and appropriate amounts. All serving ranges given in this lesson are based on the healthy U.S.-style eating pattern from the *Dietary Guidelines*. Because calorie needs vary based on age, sex, height, weight, and level of physical activity, the USDA actually provides patterns for 12 different calorie levels across the lifespan. For more information about key recommendations of the Dietary Guidelines 2015-2020, go to <http://health.gov/dietaryguidelines>.

In addition to the *Dietary Guidelines 2015-2020*, the United States Department of Agriculture (USDA's) MyPlate is another tool that can help students learn about and follow a healthy eating pattern. MyPlate is a pie chart that illustrates a place setting with a plate and glass divided into five food groups. For more information on MyPlate, go to www.choosemyplate.gov.

To avoid confusion between the types of patterns students are learning about in math, the concept of a healthy eating pattern is first introduced to students as a puzzle, with different nutritional choices serving as the pieces that help to put that puzzle together. This lesson focuses on the puzzle pieces of balance, variety, and serving size. **Balance** is making sure our diet includes foods that represent all of the food groups. Since no one food can give us all of our nutritional needs, **variety** means choosing different foods within each food group. Recommended **serving sizes** are the recommended amount of each food group we should get each day.

As students learn about balance and variety, they will be introduced to or reminded about the five food groups, as well as the recommendation of including some oil. You may need to spend some time reviewing the food groups for students with limited knowledge. In addition to the food groups, students will also learn about recommended servings sizes related to those food groups. As a reminder:

Grains – Consists of foods made from wheat, rice, oats, cornmeal, barley, or another cereal grain. Bread, pasta, oatmeal, breakfast cereals, tortillas, and grits are examples. It is recommended that 4- to 8-year-olds have 5 ounces of grains every day. At least half of these grains should be whole.

Vegetables – Consists of any vegetable or 100% vegetable juice. Vegetables may be raw or cooked; fresh, frozen, canned, or dried/dehydrated; and may be whole, cut-up, or mashed. The Guidelines recommend a variety of vegetables from all of the subgroups. Recommended servings for 4- to 8-year-olds is 1½ cups every day.

Fruits – Consists of any fruit or 100% fruit juice. Fruits may be fresh, canned, frozen, or dried, and may be whole, cut-up, or pureed. Recommended servings for 4- to 8-year-olds is 1-1 ½ cups every day.

Dairy – Consists of all fluid milk products and many foods made from milk. Foods made from milk that retain their calcium content are part of the group (such as cheese or yogurt), while foods made from milk that have little to no calcium are not. Dairy choices that are low-fat or fat-free are encouraged. Recommended servings for 4- to 8-year-olds is 2 ½ cups every day.

Protein – Consists of meat, chicken, turkey, fish, eggs, nuts, seeds, peas and beans (including soy), and any products made from these. Lean meats are encouraged. Recommended servings for 4- to 8-year-olds is 4 ounces every day.

Oil – Not an official food group, but it is important to consume some oils as part of a balanced diet.

As students will learn throughout the lesson, many foods are considered combination foods made up of more than one food group. Other foods may not easily fit into one of the food groups above. If students need additional help identifying food groups during the lesson, you may want to encourage them to research the recipes, read the ingredients on Nutrition Facts labels, or refer them to information at www.choosemyplate.gov/myplate.

Within the lesson, teachers are directed to read aloud Goldilocks and the Three Bears as a sample picture book about portions. If that story is not available, other options include:

- Goldilocks and the Three Dinosaurs by Mo Willems
- The Very Hungry Caterpillar by Eric Carle
- Cloudy with a Chance of Meatballs by Judi and Ron Barrett

Note: As always, you will want to be sensitive to individual students' unique situations and follow your school's or district's policy when it comes to the collection of personal information related to minors. At this age, students' food choices are often most influenced by their parents or caregivers and by what is available in their homes and schools. The "family connection" activity at the end of this lesson offers an opportunity to extend what is learned at home.

Additional Resources

- Center for Disease Control and Prevention Youth Risk Behavior Survey (YRBS)
<http://www.cdc.gov/healthyyouth/data/yrbs/data.htm>
- USDA Super Tracker <https://www.supertracker.usda.gov/foodtracker.aspx>
- USDA Dietary Guidelines for Americans 2015-2020
<http://health.gov/dietaryguidelines/2015/guidelines/executive-summary/>
- USDA ChooseMyPlate <http://www.choosemyplate.gov>
- USDA ChooseMyPlate Games <http://www.choosemyplate.gov/games>
- USDA ChooseMyPlate Coloring Sheet
<http://www.choosemyplate.gov/sites/default/files/audiences/ColoringSheet.pdf>
- USDA ChooseMyPlate MyPlate Daily Checklist Find your Healthy Eating Style
http://www.cnpp.usda.gov/sites/default/files/dietary_guidelines_for_americans/MyPlateDailyChecklist_1400cals_Age4-8.pdf

Procedure:

Session 1: Foundations Puzzle

1. Inform students that today you will be talking about puzzles. Ask: “Who has played with puzzles?” and “What kind of puzzles have you played with?” Invite volunteers to describe what a puzzle is. You may want to have a sample puzzle at the front of the room for reference. Guide students to understand that puzzles are made up of pieces that fit together to form a big picture. Today they are going to learn about how food choices can be like a puzzle.
2. Distribute the Student Activity Sheet: Healthy Eating Puzzle and have students color and cut out the puzzle pieces. Ask students to read the words on each puzzle piece. Then, invite them to take apart and put the puzzle together a couple of times. Explain that these different pieces can help to make up the big picture of healthy eating.
3. Ask students to hold up the “balance” piece of the puzzle. Invite student volunteers to share what they know about balance. You may want to demonstrate balance using a scale or a see-saw, or you may want to show how students can use their arms or even a friend to balance themselves when they stand on one leg. Ask students how they think that balance relates to the foods we eat. Accept all reasonable responses.
4. Show students the Student Activity Sheet: MyPlate and tell them that the picture can give them a hint about balance with our food choices. Point out the different food groups on the plate and in the cup. Ask students what they know about these food groups and spend time reviewing them, if students are unfamiliar. Make sure that students know that foods from different food groups help our bodies in different ways. When we eat foods from all of the food groups, that’s called **balance**. And it is one of the pieces of the healthy eating puzzle.

5. Invite students to draw a picture of different foods from the food groups on the MyPlate activity sheet. When they are finished, ask:
 1. What food groups should be on the plate to have a balanced pattern?
 2. How do we know the plate is balanced?
 3. If we don't have one of the food groups on our plate at breakfast, what could we do to make sure that we get balance at the next meal or snack?
6. If students need additional help reinforcing the balance concept, invite them to cut up their plate illustrations and put all of the pieces together in one big pile. Invite different students to come up and randomly pick five pieces of paper, identify which food groups they have chosen and then which they would need to add to have balance from all of the food groups.
7. Next, invite students to hold up the piece of the healthy eating puzzle that says, "variety." Ask students if they have ever heard the word "variety." If so, what do they think it means? Explain that variety is "lots of different things within the same group." You can reinforce the concept by showing all of the different types of crayon colors in a box, the variety of lunch boxes that students have, or even the variety of books in your classroom.
8. Ask students how they think there could be variety in the foods we eat. Explain that variety means eating many different foods within all food groups. To illustrate how much variety there is within each food group, divide students into teams and choose a food group like fruit or vegetables. Challenge each team to create a list of as many foods as they can in that food group in just five minutes! Encourage students to think about many different colors of foods in their food group.
9. If students need an extra challenge or additional reinforcement, invite each group to compete in the Food Group Variety Challenge! To take on the challenge, start with the food group students brainstormed. Go around the room and ask each group to name a food from their list for that group. They cannot, however, name a food that has already been chosen. Record tally marks to see how many foods are named. If their list is empty or if they repeat a food that has been named, they are out. They can only name foods that were on their lists. This will continue until only one student group is left. Repeat this game for each food group. The student group with the most individual Food Group wins will be named the Food Group Variety Challenge champions.
10. Ask students why they think having variety in our diet is important. Explain that different foods help our body in different ways. No one food gives us everything we need to stay healthy. That is why it is really important to eat a variety of foods.

Session 2: How Much Should We Eat?

1. Read the story Goldilocks and the Three Bears or an adapted version aloud. Ask students to list choices the main character Goldilocks makes in the story. Show or draw a picture for students of the three bowls (large, medium, small). Remind students that Goldilocks didn't want to eat too much or too little. Her serving size was just right! Explain that the "just right" amount of food for each person each day is called a serving size. That "just right" amount is based on many things like our age or even if we are a boy or a girl.
2. Ask students to hold up the puzzle piece that says, "serving size" from their healthy eating puzzle. Explain that eating the right serving sizes from each food group is another part of the healthy eating puzzle.
3. Ask students to name the food groups they learned about earlier in the lesson. Distribute the Student Activity Sheet "How Much Should We Eat?" Have different measuring cups, bowls and spoons available. If possible, have actual food items for each food group that students can measure. For each food group, review the "just right" serving sizes listed on the sheet. In addition to the actual measurement, point out the common object that can be used to help students compare measurements to something that is familiar. Then, invite students to come up and show how much the serving size would be using the measuring tools. Give all students the opportunity to measure at least one food group.
4. Ask students, "Why is it important to know the recommended serving sizes for each food group?" Explain that, like Goldilocks, we don't want to eat too much or too little of any food group. Knowing the recommended serving sizes can help us eat the "just right" amount for us.
5. Remind students that puzzle pieces all fit together to form one big picture. Invite them to take out the three puzzle pieces (balance, variety, and serving size). Explain that when these pieces are put together, it helps to form a bigger picture called a "healthy eating pattern." When they make these choices over time, it is just like a pattern that repeats itself. Instead of a pattern like A, A, B, A- it's a pattern of healthy eating!
6. As a final task, challenge students to create their own puzzles! Invite them to illustrate something that could represent a pattern of healthy eating. You may want to review what students learned about balance, variety, and serving size. Once students have completed their drawings, direct them to cut the drawings into 5-8 puzzle pieces and challenge a partner to put the puzzle together. Invite each pair to share their puzzles with the class and to explain how they relate to healthy eating patterns.

You Decide: *This feature helps to reinforce decision-making with students and can be integrated into the lesson or serve as an extension.*

Trying new foods can be a fun way to create variety in our diet. Ask students if they can name the last “new” food they tried. What food group or groups was it from? Invite students to imagine that they could try one new food from each food group. What food or beverage would they like to try? How could they ask their parents, caregivers, or school cafeteria workers to help them give at least one of these foods a try?

Family Connection:

Invite students to share their healthy eating puzzles with their families. At dinner, have students and parents think about the different food groups on their dinner plate. How many food groups are represented? Is there a variety of foods from some of the groups? Is there more or less of the recommended amounts of foods on the plate?

For other tools to extend learning outside of the classroom, refer to the School-to-Home activities on TogetherCounts.com. Begin these activities together at school and then encourage students to continue them with their families.

Community Connection:

Many children don’t get to make choices about the foods they eat because they don’t have the money, resources, or support to choose a diet that supports a healthy eating pattern. Challenge students to organize a school food drive with a variety of foods from different food groups, or have them prepare a balanced meal or snack bags for a local shelter.

Standards Correlations:

National Health Education Standards

- Students will comprehend concepts related to health promotion and disease prevention to enhance health.
- Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Students will demonstrate the ability to access valid information, products, and services to enhance health.
- Students will demonstrate the ability to use goal-setting skills to enhance health.
- Students will demonstrate the ability to advocate for personal, family, and community health.

SHAPE America, National Physical Education Standards

- Recognizes the “good health balance” of good nutrition with physical activity.

Common Core State Standards for English Language Arts

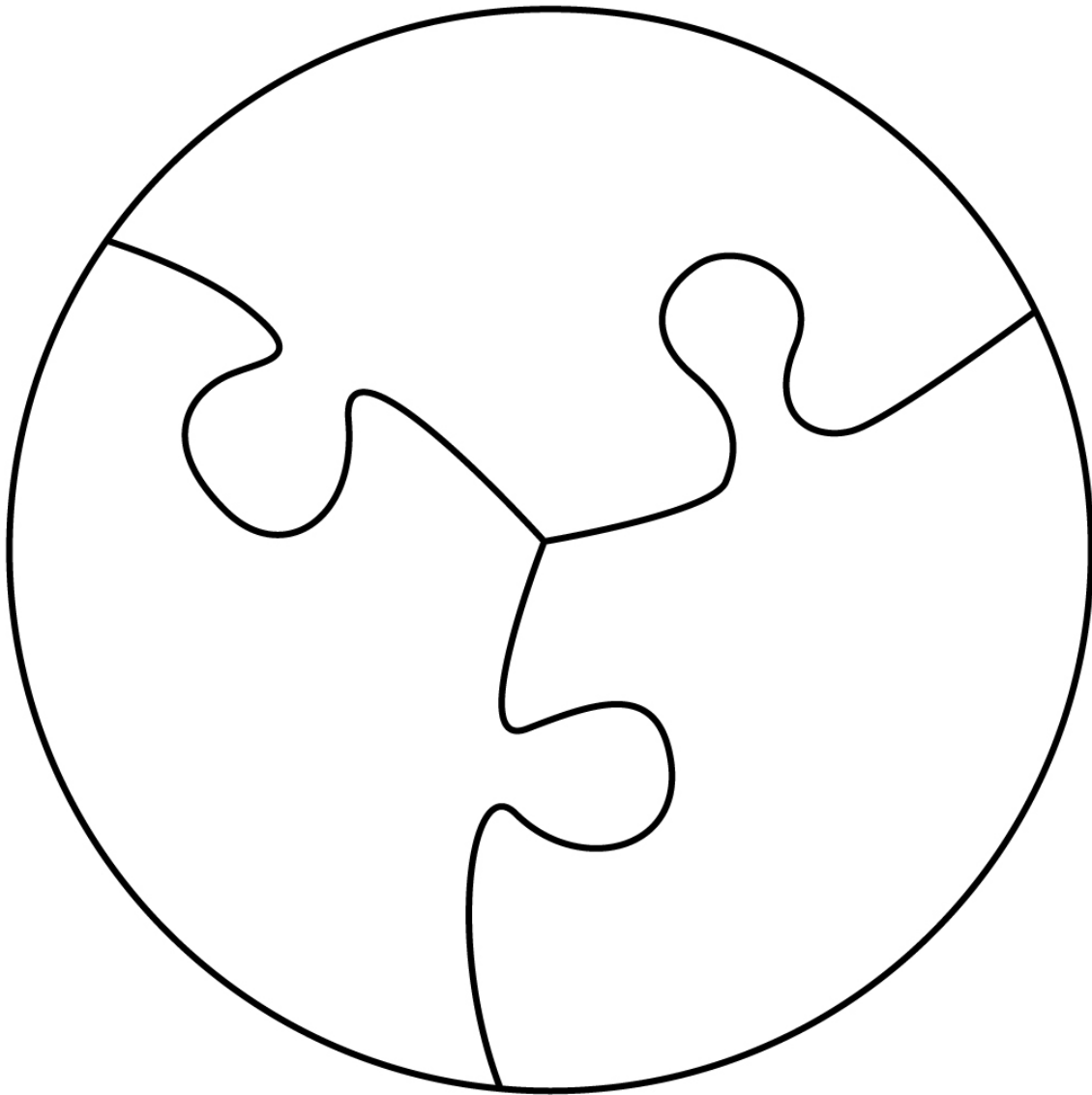
- Participate in collaborative conversations with diverse partners about grade level topics and texts with peers and adults in small and larger groups.
- Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.
- With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
- Distinguish between information provided by pictures or other illustrations and information provided by words in text.
- Determine or clarify the meaning of unknown and multiple-meaning words and phrases.

Common Core State Standards for Mathematical Practice

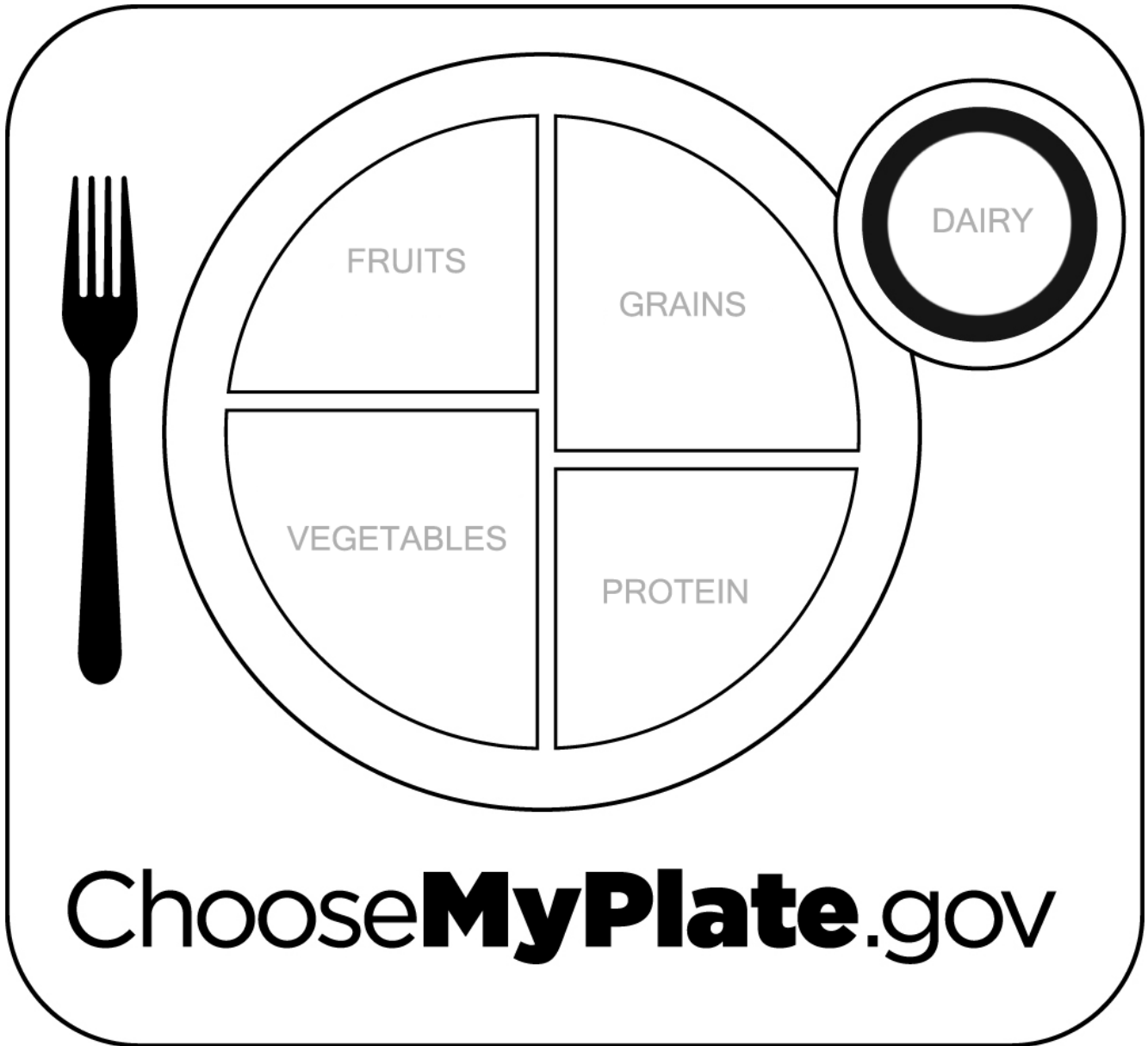
- Classify objects and count the number of objects in each category.
- Represent and interpret data.
- Measure and estimate lengths in standard units.

** Source: <http://www.choosemyplate.gov/snapshot-2015-2020-dietary-guidelines-americans>

Student Activity Sheet: Healthy Eating Puzzle












Student Activity Sheet "My Plate"



Student Activity Sheet: How Much is Just Right?

1. Look at the food groups below and the amount you should eat of each food group.
2. Then, use measuring tools to measure out the amounts.

FOOD GROUP	Recommended Daily Amounts for 4-8 year olds	Looks Like...
DAIRY 	2½ cups	1 cup 
FRUIT 	1-1½ cups	½ cup 
VEGETABLES 	1½ cups	1 cup 
GRAINS 	5 ounces	1 ounce 
PROTEIN 	5 ounces	3 ounces 