

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

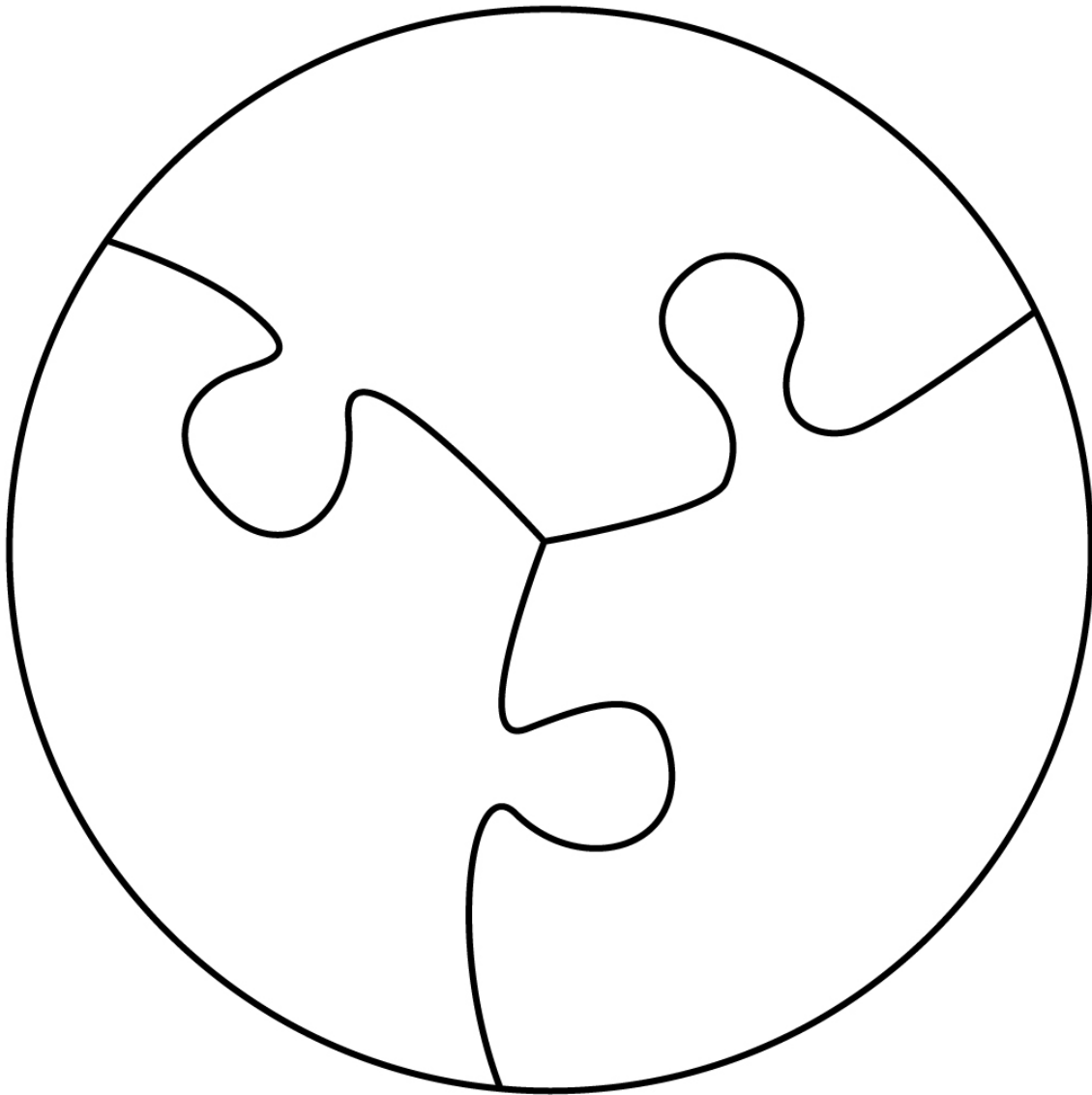
- Participate in collaborative conversations with diverse partners about grade level topics and texts with peers and adults in small and larger groups.
- Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- Add drawings 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

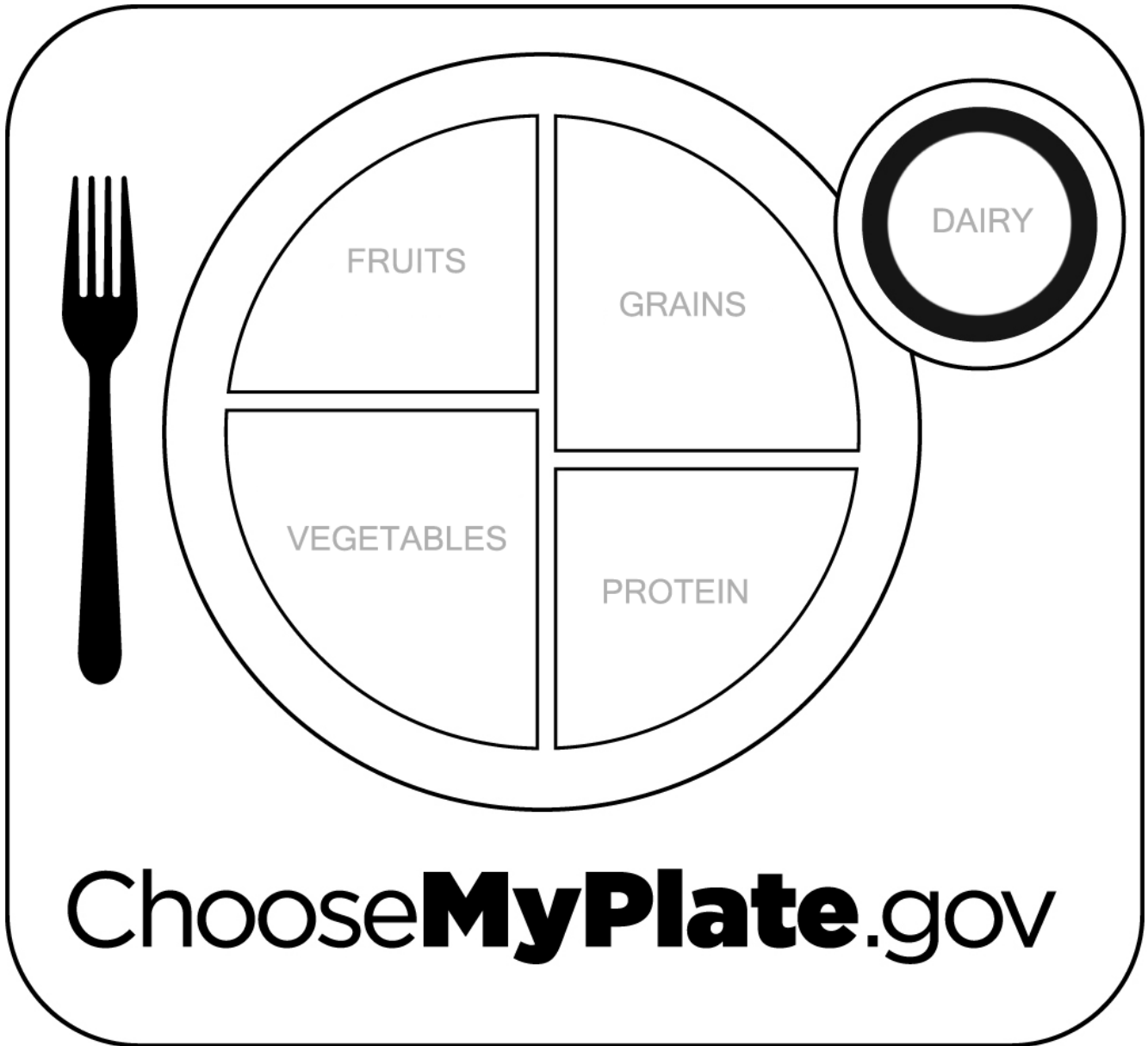
- Classify objects and count the number of objects in each category.
- Represent and interpret data.
- Measure and estimate lengths in standard units.

** 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 

The Job of a Nutrient

Grade Band: K-2

Student Objectives:

- Explain what a nutrient is
- Be introduced to different types of nutrients
- Learn how different nutrients help the body in different ways
- Write sentences that explain information about one or more nutrients
- Locate information about different nutrients on a Nutrition Facts label

Materials:

- Plant seeds (one per student)
- Picture of a plant cycle (roots, stem, seed, water, plant)
- Nutrient Matching Cards (cut into cards)
- Student Activity Sheet: The Job of Nutrients
- Nutrient Mystery Cards (cut into cards, one per group)
- Art materials, magazines with food pictures, glue, scissors, blank poster paper
- Sample Nutrition Facts labels

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 the previous lesson, students were introduced to different parts of the healthy eating pattern puzzle such as balance, variety and serving size. Another part of that puzzle is knowing about nutrients in what we eat and drink. This lesson begins to introduce students to what a nutrient is, why nutrients are important, and the jobs that different nutrients have in our bodies. It is most important that young children understand that different foods provide different nutrients that can help them stay healthy, another reason to maintain balance and variety. Specifically, they will be introduced to Vitamin A, Vitamin C, calcium, carbohydrates, fat, fiber, and Iron. For specific information about these nutrients, including nutrients to encourage and limit, go to www.choosemyplate.gov/MyPlate. For information about other nutrients and key dietary recommendations, go to the Dietary Guidelines 2015-2020, <http://health.gov/dietaryguidelines> or to USDA's MyPlate at www.choosemyplate.gov.

To help reinforce the real-world connection to nutrients in their foods, students will be introduced to a Nutrition Facts label. For information and resources to help children understand Nutrition Facts labels, go to www.fda.gov/Food/IngredientsPackagingLabeling/LabelingNutrition/ucm20026097.htm.

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 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

- Centers for Disease Control and Prevention- Body and Mind!
 - <http://www.cdc.gov/bam/nutrition/index.html>
- USDA ChooseMyPlate- Eating healthier and feeling better using the Nutrition Facts Label
 - <http://www.choosemyplate.gov/sites/default/files/sites/default/files/images/NutritionFactsLabel.pdf>
- USDA ChooseMyPlate
 - <http://www.choosemyplate.gov>
- USDA ChooseMyPlate Games
 - <http://www.choosemyplate.gov/games>
- ChooseMyPlate Nutrient-Density
 - <http://www.choosemyplate.gov/nutrition-nutrient-density>
- 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/>

Procedure:

Session 1: Plant and feed your seeds. Food nourishes the body.

1. Give each student a plant seed. Ask students what is needed to turn the seed into a growing, healthy plant. Student responses may include planting it in soil, watering the plant. Show students a picture of a plant, roots, stem, and leaves to show how a seed grows into a plant.
2. Ask students to think about how they are just like that seed. Guide students to answer that they start out small just like that seed and they need food and water to grow and be healthy.
3. Write the word, “nutrient” on the board. Ask students if they have ever heard this word and, if so, what they think it means. Explain that nutrients are tiny parts in food that help us move, play, grow, and think. Nutrients have specific jobs to keep the body healthy. Plants get *their* nutrients from soil. We get *ours* from what we eat and drink.
4. Poll students to see if they think that all foods have the same nutrients. Explain that the same nutrients can be in different foods but usually in different amounts. And some foods have different nutrients than other foods. That is another reason why it is important to have a variety of foods from each group and balance of all the different food groups (fruits, vegetable, grains, proteins, and dairy).
5. Tell students that today they are going to learn about different kinds of nutrients and their jobs in helping us grow and stay healthy. First, it’s time to play a matching game. Distribute the Nutrient Matching Cards to 18 different students. (If you have fewer students, you can remove the food group cards.) Explain that eight of them have pictures of foods, eight of them have the food groups that match those foods, and eight of them have the names of nutrients that those foods have lots of! Direct them to do the following:
 - Have all students with pictures of foods stand.
 - Then, have all students with pictures of food groups stand. Challenge them to find their matches. Note that some food groups are included more than once and that oil is also included.

- Invite students who are not part of those matches to confirm that all of the matches are correct.
 - Have all students with the names of nutrients stand. You may need to read the names of each nutrient with students. One at a time, give hints that help to guide which nutrients go with which food/food groups pairs.
 - Note: For younger students, you can color code all cards ahead of time.
6. Once students have formed their nutrient groups, distribute the “Job of a Nutrient” student activity sheet. Guide them to find their nutrient on the page and read about other foods that have a lot of their nutrient. Then challenge them to write two true sentences about their nutrient. Sentence examples: Papayas have Vitamin C. Vitamin C helps our hearts stay healthy. Eating papayas can help our heart stay healthy. Many fruits have Vitamin C. Many vegetables have Vitamin C, too.
 7. Invite each group to share its sentences and have other students give thumbs up if they agree that the sentence is true.
 8. In closing out the session, ask students: Why is it important to eat a balance of foods with different nutrients?

Session 2: Clue - It’s a Mystery!

1. Tell students that you are thinking of a food and you want to see if they can guess what it is. Give them the following clues:
 - I am yellow
 - I am a fruit
 - I have lots of Vitamin C
 - I am sometimes sour

Answer: I am a lemon!

(Challenge students to remember what part of our bodies that Vitamin C helps.)
2. Divide students into small groups. Provide each small group a set of the Nutrient Mystery cards. Tell students that each card has a mystery, just like the one that you read above. They should read each card and then write the name or draw a picture of the food on the other side. Each student should take turns reading the clue cards to their group members. To accommodate early and emerging readers, the teacher can read the clue card and the student can write the food or draw a picture. Go over the answers as a class. Note that an answer sheet is also provided with this lesson.

3. Extension: Using the blank card or an index card if more space is needed, challenge students to create their own clue cards. If they don't know what nutrients are in a certain food, they can refer back to the Job of a Nutrient activity sheet. You can also help them learn more about specific nutrients in different foods at the USDA's National Nutrient database at <https://ndb.nal.usda.gov/ndb/search> to search for the nutrients in different foods. When students are finished, invite them to swap cards with classmates and try to guess each other's clues.
4. Finally, show students a sample Nutrition Facts label or a reproduction of a label from any food container. Ask students to raise their hands if they have seen a label like this before and where they can find one. Explain that all foods that come in a package, can, or box include a label that tells us lots of information including what nutrients are in the food and how much.
5. Invite students to apply what they have learned about nutrients by trying to find information about them on an actual Nutrition Facts label. Use the following prompts to find the nutrients highlighted in the previous sessions.
 - Eye spy Vitamin A. Guide students to point to where they spy Vitamin A on the nutrition facts label. Ask, "How does Vitamin A help the body?"
 - Eye spy Vitamin C. Guide students to point to where they spy Vitamin C on the nutrition facts label. Ask, "How does Vitamin C help the body?"
 - Eye spy Protein. Guide students to point to where they spy Protein on the nutrition facts label. Ask, "How does Protein help the body?"
 - Eye spy Carbohydrates. Guide students to point to where they spy Carbohydrates on the nutrition facts label. Ask, "How does Carbohydrates help the body?"
 - Eye spy Calcium. Guide students to point to where they spy Calcium on the nutrition facts label. Ask, "How does Calcium help the body?"
 - Eye spy Iron. Guide students to point to where they spy Iron on the nutrition facts label. Ask, "How does Iron help the body?"
 - Eye spy Fiber. Guide students to point to where they spy Fiber on the nutrition facts label. Ask, "How does Fiber help the body?"
 - Eye spy Fat. Guide students to point to where they spy Fat on the nutrition facts label. Ask, "How does Fat help the body?"
6. Ask students what else their eyes spy on the Nutrition Facts labels.
7. Finally, ask each student to share one thing they have learned about nutrients.

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

Right now, students' food choices may be primarily influenced by their parents, caregivers, and school cafeteria staff. But, as they get older, they will be able to make more food choices for themselves. Invite each student to write and illustrate a sentence that explains how knowing about nutrients could help them make food choices that contribute to their good health.

Family Connection:

Invite family members to play Eye Spy using Nutrition Facts labels from their own refrigerators or pantries.

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 healthy, balanced diet. Have students organize a food drive to donate nutrient-rich foods to 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 access valid information, products, and services 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.

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

Student Activity Sheet: Nutrient Matching Cards

(Added header to matching)

Food	Food Group	Nutrient
Orange	Fruit	Vitamin C
Cereal	Grain	Carbohydrate
Milk	Dairy	Calcium
Carrots	Vegetable	Vitamin A
Vegetable Oil	Oil	Fat
Eggs	Protein	Protein
Spinach	Vegetable	Iron
Black Beans	Protein	Fiber

Student Activity Sheet: The Job of Nutrients

Nutrient	How it Helps our Body	Sample Foods
Vitamin C	Helps our heart stay healthy and helps our immune system	Oranges Limes Grapefruit Papayas Kale Broccoli Plantains Green peppers
Vitamin A	Helps our eyes work better	Broccoli Red peppers Sweet potatoes Cantaloupe Peaches Kale Carrots
Calcium	Helps to make our bones and teeth strong	Milk Cheese Egg Yogurt Tofu
Carbohydrates	Helps to give our body energy	Bread Cereals Potatoes Rice Plantains Corn
Fiber	Helps us digest our food	Bran cereal Black Beans Lima Beans Raspberries Blueberries Peas Spinach

		Almonds Peanuts Guava
Fat	Limited amounts of fat in the diet help our skin and organs and are a source of energy	Avocado Cheese Dark Chocolate Eggs Fish (salmon, tuna, sardines, etc.) Nuts Oils (Olive Oil, Coconut Oil)
Iron	Helps make red blood cells	Red meat Pork Chicken Seafood Beans Spinach Dried fruit-raisins
Protein	Helps to build our muscles	Fish Chicken Beef Milk Cheese Eggs Yogurt

Write two sentences about your nutrient. Be sure to include the nutrient name, food group, and how the nutrient helps the body:

- 1.
- 2.

Student Activity Sheet: Nutrient Mystery Cards

<p>I am green. I help the body see well because I have Vitamin A. I also have Vitamin C to help the body have healthy skin and blood. I am a vegetable. I look like a small tree. What am I?</p>	<p>I am yellow. I have Vitamin C. Vitamin C helps the blood in the body. Vitamin C helps the body's skin. I am a fruit. I grow on a tree. What am I?</p>
<p>I am white. I have calcium. Drinking me can help your body have strong bones and teeth. I come from a cow. What am I?</p>	<p>I am brown and sometimes white. I am a grain. One food I can help make is a peanut butter and jelly sandwich. I have carbohydrates. I give the body energy to run and play. What am I?</p>
<p>I am orange. I have Vitamin A. I help the eyes. I grow in the ground. What am I? Bunnies like to eat me. What am I?</p>	<p>I come in different colors. I have calcium. Eating me can help the body have healthy teeth and bones. I am made from milk. I can be Swiss or American. What am I?</p>
<p>I come in different colors and shapes. I have carbohydrates. I give the body energy to move. Sometimes people add milk to me or have me as a snack. I am usually eaten in the morning. What am I?</p>	<p>When cooked, I change colors from pink to brown. I have protein. Protein helps the body build strong muscles. Protein also helps the hair. What am I?</p>
<p>I am black. I am used to cook a lot of different meals. I have protein. I have fiber. I am really good with rice or in a salad. What am I?</p>	<p>I am purple, golden, and sometimes other colors. I am used to cook or can be eaten alone. I have Iron. I start out as a type of fruit and am dried. What am I?</p>

<p>I am green on the inside. I am dark green on the outside. I can be eaten alone, in salad, or to make other foods like guacamole. I have fat, Vitamin C, and fiber. What am I?</p>	<p>Hint 1: Hint 2: Hint 3: Hint 4: What am I?</p>
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Student Activity Sheet: Nutrient Mystery Cards (Answer Key)

<p>I am green. I help the body see well because I have Vitamin A. I also have Vitamin C to help the body have healthy skin and blood. I am a vegetable. I look like a small tree. What am I? (Broccoli)</p>	<p>I am yellow. I have Vitamin C. Vitamin C helps the blood in the body. Vitamin C helps the body's skin. I am a fruit. I grow on a tree. What am I? (Lemon)</p>
<p>I am white. I have calcium. Drinking me can help your body have strong bones and teeth. I come from a cow. What am I? (Milk)</p>	<p>I am brown and sometimes white. I am a grain. One food I can help make is a peanut butter and jelly sandwich. I have carbohydrates. I give the body energy to run and play. What am I? (Bread)</p>
<p>I am orange. I have Vitamin A. I help the eyes. I grow in the ground. Bunnies like to eat me. What am I? (Carrots)</p>	<p>I come in lots of different colors. I have calcium. Eating me can help the body have healthy teeth and bones. I am made from milk. I can be Swiss or American. What am I? (Cheese)</p>
<p>I come in different colors and shapes. I have carbohydrates. I give the body energy to move.</p>	<p>When cooked, I change colors from pink to brown. I have protein.</p>

<p>Sometimes people add milk to me or have me as a snack. I am usually eaten in the morning. What am I? (Cereal)</p>	<p>Protein helps the body build strong muscles. Protein also helps the hair. What am I? (Meat-Chicken, Beef, or Pork)</p>
<p>I am black. I am used to cook a lot of different meals. I have protein. I have fiber. I am really good with rice or in a salad. What am I? (Black Beans)</p>	<p>I am purple, golden, and sometimes other colors. I am used to cook or can be eaten alone. I have Iron. I start out as a type of fruit and am dried. What am I? (Raisins)</p>
<p>I am green on the inside. I am dark green on the outside. I can be eaten alone, in salad, or to make other foods like guacamole. I have fat, Vitamin C, and fiber. What am I? (Avocado)</p>	

Food for Thought

Grade Band: K-2

Student Objectives:

- Learn how calories from food and beverages give the body energy and activities use energy
- Identify what influences their food choices
- Design their own lunch, using what they have learned about healthy eating patterns

Materials:

- Student Activity Sheet: Give or Take
- Student Activity Sheet: Lunch Tray
- Modeling clay or Play Dough
- Various art materials including magazines with pictures of foods, scissors, and glue, or crayons, colored pencils, and markers

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 will explore reasons why we eat and how calories from food and beverages give the body energy we need to function and to be active. They learn that we then use that energy to move, learn, and play. It is difficult for most students at this level to understand the science behind calories so the term is simply introduced during this part of the lesson. For ideas on further exploring the science behind calories, refer to the [link to 3-5 lessons].

In the second session, students explore what influences the food choices we make. As students get older, they will begin to make their own choices about what they eat and be more influenced by peers, the media and other sources. Understanding what influences their choices can help to lay a foundation for making those decisions.

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 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: Food is fuel for the body like gas is for a car

1. Write the sentence starter, "We eat because ..." on the board and invite students to complete and share answers. Accept all reasonable answers. If students don't identify that we eat to be healthy and to get the energy we need, ask them what they think

could happen if we didn't eat food? Explain that food is important for both our health and to give us energy we need to live, work, and play.

2. Ask: What does a car need to move? What do we need to put in our body to make sure we can work, sleep, play, and move? Explain that gas is fuel for the car, and food is fuel for our bodies.
3. Ask students to think about what is in different foods that gives us energy. Explain that something called "calories" in foods and beverages are a form of energy that fuels our bodies. When we eat and drink foods and beverages that contain calories, those calories give us energy. We can then use that energy to live, work, and play. Let students know that many foods also help us keep our heart healthy, bones and muscles strong, and brain working well so we can learn at school. Instruct students to model several different activities that use energy from foods. Challenge students to:
 - jump up and down as fast as they can for ten seconds
 - point to their hearts and try to feel them beating
 - pretend to sleep or rest
 - take a deep breath in and out slowly
 - make a strong muscle with their arms
 - stand on one foot
 - dance
 - pretend to sneeze or yawn
4. As they do each activity, challenge them to think of one food they ate today that gave them the energy to do it.
5. Reinforce or extend this concept with the "Give or Take" game. (Note: You will need to cut out the cards from the activity sheet ahead of time). Divide students into groups, and distribute a stack of cards to each student group. Place the cards face down in the middle of the table. Inform students that the student with the birthday closest to today will begin by selecting a card from the top of the pile and reading the card to the group. Team members have to decide whether the item on the card "gives" or "takes" energy. Let students know that if the group cannot agree if the item gives or takes energy to put it to the side and come back to it when all other cards are placed in the "Give" or "Take" pile.

6. When all cards have been placed in the piles, instruct students to look at the “Give” pile. Ask: What do you notice about the items in this pile? What food groups are represented? Instruct student small groups to sort the food cards into food groups.
7. Extended learning: Have small groups create their own sets of cards for items that give and take energy. Once small groups have developed their own sets, they can challenge another team and exchange the cards.

Session 2: What influences our food choices?

1. Give individual students or student groups a block of clay and let them know that they have three minutes to build a model that represents a breakfast food. Give students three minutes to form their models.
2. Debrief: Ask students to share their models and the reasons they chose the foods they did. Was it easy? Is it their favorite? Is it something that represents their culture?
3. Explain that when we choose foods to eat, there is often a person or thing that helps us make that choice. Reinforce the concept by asking students to think about what they ate for breakfast this morning. Have all students stand up. Then, read the following sentences and ask students to sit down when one of the sentences is true:
 - I ate this breakfast food because my parent or caregiver told me to.
 - I ate this breakfast food because I saw a commercial for it on television.
 - I ate this breakfast food because it is something my family loves to eat.
 - I ate this breakfast food because I like the way it tastes.
 - I ate this breakfast food because _____. (Invite students who remain standing to come up with other reasons).
4. Explain that there can be many different reasons we make food choices, and those reasons can change over time. Their parents or caregivers may choose most of their foods right now but, as they get older, they may be able to make their own food choices more often.
5. Ask students how what they have learned about balance and variety could help them make eating choices that help them stay well.
6. Ask students to pretend that they can design their own lunch menu for tomorrow. Distribute the “Lunch Box” student activity sheet. Review the directions and explain how they can earn points with their lunch items. Invite students to fill up the lunch box with

the things they would like for lunch. They can draw the lunch items or they can cut out pictures from magazines or web sites.

7. When they are finished, invite them to “share” their lunches with a partner, explaining why they chose the foods they did. If time allows, challenge them to work with their partner to add up their points and make any changes or additions to increase points.

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

Ask students to think about foods they like to eat for dinner and to draw or write down the dinner items on a sheet of paper. Ask students if their drawing includes a balance of all the food groups. If it does, put a star at the top of the page. If it does not, decide what needs to be changed to make it more balanced.

Family Connection:

Encourage students to share their “lunch boxes” with family members. Discuss ways to make this lunch or to incorporate some of the foods selected. Challenge students to explain to their family members why they chose the foods they did.

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:

Culture often influences our food choices. Invite representatives from different cultural groups in the community to share recipes or to make food items that students can sample or try at home.

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

- Make sense of problems and persevere in solving them.
- Classify objects and count the number of objects in each category.
- Represent and interpret data.

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

Student Activity Sheet: Give or Take

Teacher note: Cut student cards for each small group.



GIVES ENERGY		TAKES ENERGY	
Sleeping	Doing Karate	Walking	Jumping Rope
Dancing	Hopping	Playing Piano	Reading a Book
Playing Soccer	Planting Flowers	Climbing a Tree	Doing a Math Problem
Carrot	Apple	Orange	Broccoli
Rice	Chicken	Peanuts	Cereal
Tortilla	Milk	Cheese	Granola Bar

Student Activity Sheet: Lunchbox

Draw or glue pictures of what you would like for lunch inside the lunchbox. When you are finished, check off each sentence you have completed. Give yourself one point for each check mark.

- My lunch has a fruit.
- My lunch has a vegetable.
- My lunch has a grain.
- My grain is a whole grain.
- My lunch has a dairy item.
- My dairy item is non-fat or low-fat.
- My lunch has variety (at least two different foods from the same group).
- I like making lunch choices that can help me stay healthy!



TOTAL POINTS:
