

The Big Six Nutrients on Our Plate

Grades 1-2

Goal	Students will understand fruits, vegetables, grains, protein, and dairy as the essential parts of a healthy diet.
Objectives	Students will be introduced to the concept the foods they eat contain six essential nutrients (carbohydrates, protein, minerals, water, vitamins, and fat) which help to keep their bodies healthy and provide energy for their bodies.
Time	50 minutes
Materials	Posters: MyPlate Essential Nutrients Essential Nutrient Cards Tangram Super Me Food picture cards, small Move Your Feet picture cards Tasting materials
Teacher Background	The Six Essential Nutrients Carbohydrates Foods containing carbohydrates are the body's main source of energy. Some good sources of carbohydrates are beans, fruits, low-fat dairy foods, vegetables, whole grains (such as whole wheat bread or crackers, brown rice, oatmeal), and nuts. Minerals Minerals are nutrients that are needed for the body to grow, work, and fix itself. Minerals help build strong bones,

	<p>teeth, and turn food into energy. For example, calcium is a mineral which comes from milk and other sources. Calcium is a mineral that works with vitamin D and phosphorous to build strong bones and teeth. Calcium also helps keep a healthy blood pressure, helps keep nerves healthy, and helps muscles move.</p> <p>Proteins Proteins are nutrients found in both plant and animal sources. Proteins are made of amino acids, which the body uses to build and fix itself. Some good sources of protein are beans, eggs, fish, lean meats, low-fat dairy foods, poultry, and soy foods.</p> <p>Water The body needs water to live. Water helps control the body's temperature; use nutrients found in food, and carry oxygen from the lungs and food from the stomach to the rest of the body.</p> <p>Vitamins Vitamins are nutrients that are needed for the body to grow, work, and fix itself. For example, vitamin C helps the body heal cuts and wounds and helps lower the risk of infection.</p> <p>Fat Fats are nutrients that make cells, protect the body's organs, and help absorb certain vitamins. Fats come in many forms and some are healthier than others. Healthy fat sources include Avocado, canola oil, some fish, nuts, olives, and olive oil.</p>		
Common Core Vocabulary	Nouns	Describing words (Adjectives)	Verbs
	Nutrients Vitamins Minerals Fats Carbohydrates Protein Water		
Anticipatory set/ Pre-Assessment	<p>Teacher asks: Why is it important to eat food from all of our food groups? (It provides us with energy and keeps our bodies healthy and feeling good.)</p>		
Closing/	Closing: Review of Six Essential Nutrients		

Objective:

- Students will be introduced to the concept the foods they eat contain six essential nutrients (carbohydrates, protein, minerals, water, vitamins, and fat) which help to keep their bodies healthy and provide energy for their bodies.

Materials:

- Posters:
 - Essential Nutrients
 - Tangram Super Me
 - Labeled tangram shapes corresponding nutrient, color, and shape:

Water	blue	large triangles
Carbohydrates	brown	medium triangle
Protein	red	parallelogram
Minerals	purple	square
Vitamins	orange	small triangle
Fats	yellow	small triangle

- Tape

One per student:

- Student set of above tangrams, pre-cut in plastic bags/envelopes
- Handout: Super Me!
- Glue sticks
- Pencil

Procedure:

Set up: students seated in sitting area around Super Me tangram poster

Teacher:

1. Why is it important for us to eat foods from the five food groups on MyPlate?
2. Explain to the students:
 - Each nutrient has a specific job to provide your body what it needs to stay healthy.

Water: Most important nutrient, essential for digestion, respiration, carrying nutrients and oxygen

- ✓ Your body uses it 24 hours a day
- ✓ Over half of your body weight is water
- ✓ It carries nutrients to the cells in your body
- ✓ It does not produce energy

Carbohydrates: Gives us high amounts of quick energy

- ✓ Simple = table sugar, corn syrup which enters your blood stream quickly (energy burst)
- ✓ Complex = whole grain are processed and used more slowly (long lasting energy)

Protein: Builds muscles and bones

- ✓ Provides the structure for tissues of your body
- ✓ Transports essential elements in your blood stream

Fats: Gives us stored energy

- ✓ When we have excess nutrients in our body, some of it is stored as fat
 - Two main kinds:
 - Saturated = animal fats (meat, butter, lard)
 - Unsaturated = vegetable fats (olive oil, corn oil)
 - Omega-3 fatty acids helpful in preventing some cancers and heart disease

Vitamins: Helps regulate body processes

- ✓ Do not produce energy
- ✓ Most vitamins cannot be manufactured by the body and we must get from foods we eat

Minerals: Essential to growth and metabolism

- ✓ Do not produce energy
- ✓ Get from foods which are combined in several ways to form the structure of your body i.e., calcium is a mineral that is crucial in the formation and maintenance of your bones

Today we are going to take these six essential nutrients to make a super you!

Distribute materials: Super Me! handout, tangram pieces, glue sticks, pencil (to write name)

- Each color shape represents a nutrient or something important our body needs to keep us healthy and give us

<p>Physical activity component</p>	<p>energy.</p> <ul style="list-style-type: none"> ➤ Review shape/size and corresponding nutrient <p>Find the two large blue triangles. This is the water our body needs.</p> <ul style="list-style-type: none"> ✓ In all foods and drinks <p><i>(Model procedure to glue shape on Super Me handout.)</i></p> <p>Continue with remaining tangram shapes</p> <p>Find the medium brown triangle. This will be the carbohydrates our body needs.</p> <ul style="list-style-type: none"> ✓ rice, cereal, pasta, fruits, bread <p>Find the red parallelogram. This represents protein.</p> <ul style="list-style-type: none"> ✓ Animals: cheese, milk, meat ✓ Plants: beans, nuts, seeds <p>Find the purple square. These are the minerals your body needs.</p> <ul style="list-style-type: none"> ✓ Calcium: milk, cheese, yogurt, some vegetables (i.e. broccoli) ✓ Iron: meats and some green leafy vegetables <p>Find the small orange triangle. This is the vitamins your body needs.</p> <ul style="list-style-type: none"> ✓ Mostly in fruits and vegetables but may be found in almost all foods ✓ Vitamin A: carrots and milk products ✓ Vitamin C: citrus fruits and tomatoes ✓ In all foods and drinks <p>Find the small yellow triangle. This is the fat your body needs.</p> <ul style="list-style-type: none"> ✓ In all animal and some plant products as well as all foods made with or cooked in butter or oil ✓ Ham, milk, cheese, nuts, french fries
	<p><u>Station 2: Station: Move Your Feet!</u></p> <p>10-15 minutes - Classroom teacher</p> <p>Materials:</p>

<p>Tasting component</p>	<ul style="list-style-type: none"> • Activity cards • Paper squares to mark spots for students to sit (optional) <p>Set-up:</p> <ul style="list-style-type: none"> • Students sitting in a circle • Start with one student in the middle of the circle with no circle spaces open • Activity cards and teacher in center of circle <p>Directions:</p> <ul style="list-style-type: none"> • We are going to play a game that will help us show how we are meeting our health goals for the year. • I want you to think about the healthy choices you have made in the last week and be ready to move! • One of you, student, picks a card and the teacher/student reads card. Ex. "All students who played outside yesterday stand up and walk to a new spot in the circle." • If you have done the activity on the card that is called you must move your feet by walking to a new spot in the circle and sit down. • If there are no spots left in the circle, the student left standing gives me a high five and gets to pick a new card. • Game repeats until all cards are used. <p>Rules: Student cannot run and must sit in a new spot.</p> <p>Closing: Ask students to think about:</p> <ul style="list-style-type: none"> • How many times have you moved around the circle today? • How many healthy choices did you make? • What could you do to make more healthy choices next week? <p><u>Tasting / Discussion</u></p> <ul style="list-style-type: none"> • Transition back to a whole group. • Ask the students if they are ready to eat some vitamins and minerals. Remind them that vitamins and minerals help our bodies stay healthy and strong. • Have students wash or sanitize their hands. Review the importance of cleaning off germs to be healthy. • Review tasting etiquette. • Hand out the tasting.
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	<ul style="list-style-type: none"> • Lead a closing discussion while the tasting is handed out: <p>Why is it important for us to eat food from all five food groups on MyPlate? What are the six essential nutrients? What is the most important nutrient of the six?</p>
<p>Home Connection component</p>	<p>Send home the following message</p> <p style="text-align: center;">Big Six Home Connection</p> <p>Dear Parents/Guardians,</p> <p>Today your child had a nutrition lesson in the outdoor classroom. He/she learned about the <u>Big Six Essential Nutrients</u>: water, carbohydrates, fats, vitamins, nutrients, and proteins. The tasting for the lesson was: <u>Organic blue corn tortilla chips and broccoli with a salsa and sour cream dip.</u></p> <p><i>Activity to try at home/Recipe:</i></p> <p><u>Healthy Vegetable Dip</u></p> <p>1 jar of salsa (whatever you prefer) 1 pint of low-fat sour cream</p> <p>Vegetables for dipping:</p> <ul style="list-style-type: none"> • Bell peppers (red, yellow, orange) • Carrots • Jicama • Celery • Broccoli • Cauliflower <p>Directions: in a bowl, mix together the sour cream and salsa until the sour cream is completely mixed into the salsa. Wash all</p>

	vegetables and dry them. Slice them into long sticks that would be appropriate for dipping into salsa/ sour cream dip. Enjoy a healthy and delicious snack with your family!
Standards:	
Health Standards	Nutrition and physical activity
Grade 1	First grade Standard 1: Essential Concepts 1.1.N Name a variety of healthy foods and explain why they are necessary for good health. 1.2.N Identify a variety of healthy snacks. 1.3.N Describe the benefits of being physically active. Standard 7: Practicing Health-Enhancing Behaviors 7.1.N Select nutritious snacks.
Grade 2	Second/Third Grade Standard 1: Essential Concepts 1.1.N Classify various foods into appropriate food groups. 1.4.N List the benefits of healthy eating (including beverages and snacks). 1.5.N Describe the benefits of drinking water in amounts consistent with current research-based health guidelines. 1.7.N Identify a variety of healthy snacks.
Health Education Standards	First Grade 1.G.2. Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. Second Grade 2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number

<p>Nutrition Competencies</p> <p>Physical Education</p>	<p>of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <p>NC2.a (grades K-2)</p> <ol style="list-style-type: none"> 1. Know the different food groups of the current USDA guidance for daily food choices and be able to classify various foods into those groups. <p>Report on the number of daily servings recommended for each food group.</p> <p>3.1 Participate in physical activities that are enjoyable and challenging. 4.3 Explain that nutritious food provides energy for physical activity.</p>
<p>Common Core Speaking and Listening Standards</p> <p>Grades 1 and 2</p>	<p><u>First Grade</u></p> <ol style="list-style-type: none"> 1. Participate in collaborative conversations with diverse partners about <i>grade 1 topics and texts</i> with peers and adults in small and larger groups. <ol style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion. 2. Ask and answer questions about key details in a text read aloud or information presented orally or through other media. <ol style="list-style-type: none"> a. Give, restate, and follow simple two-step directions. 3. Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. <p><u>Second Grade:</u></p> <ol style="list-style-type: none"> 1. Participate in collaborative conversations with diverse partners about <i>grade 2 topics and texts</i> with peers and adults in small and larger groups. <ol style="list-style-type: none"> a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others

	<p>with care, speaking one at a time about the topics and texts under discussion).</p> <ol style="list-style-type: none"> b. Build on others' talk in conversations by linking their comments to the remarks of others. c. Ask for clarification and further explanation as needed about the topics and texts under discussion. <ol style="list-style-type: none"> 2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media. <ol style="list-style-type: none"> a. Give and follow three- and four-step oral directions 3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue 		
<p>ELD Standards Listening and Speaking</p>	<p><u>Beginning/Early Intermediate</u></p> <ul style="list-style-type: none"> • Ask and answer simple questions with one- to two-word responses, phrases or simple sentences. • Respond to simple directions and questions by using physical actions and other means of nonverbal communication (e.g., matching objects, pointing to an answer, drawing pictures). • Recite familiar rhymes, songs, and simple stories. 	<p><u>Intermediate</u></p> <ul style="list-style-type: none"> • Ask and answer instructional questions by using simple sentences. • Listen attentively to stories and information and identify important details and concepts by using both verbal and nonverbal responses. • Retell stories and talk about school-related activities by using expanded vocabulary, descriptive words, and paraphrasing. • Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information. 	<p><u>Early Advanced/Advanced</u></p> <ul style="list-style-type: none"> • Listen attentively to stories and information on new topics and identify both orally and in writing key details and concepts. • Narrate and paraphrase events in greater detail by using more extended vocabulary. • Negotiate and initiate social conversations by questioning, restating, soliciting information, and paraphrasing the communication of others.

References:

Network for a Healthy California Nutrition Glossary -

http://www.harvestofthemonth.cdph.ca.gov/edcorner/Botanical%2051212/Glossary/CDPH_NutritionGlossary_FINAL.pdf

TWIGS: Vitamin Values

Choose MyPlate - www.choosemyplate.gov

Adapted from "Invisible Gold" - *The Growing Classroom*

SPARK Curriculum

<http://recipefinder.nal.usda.gov/recipes/vegetable-medley-salsa-dip>