



What's That Food?

Pre-assessment activity from *The Science of Food Teacher's Guide: From Ecosystems to Nutrition*
and for *The Mysterious Marching Vegetables*

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BioEdSM

Teacher Resources from the
Center for Educational Outreach at
Baylor College of Medicine

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The activities described in this book are intended for school-age children under direct supervision of adults. The authors and Baylor College of Medicine cannot be responsible for any accidents or injuries that may result from conduct of the activities, from not specifically following directions, or from ignoring cautions contained in the text.

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What's That Food?

Pre-assessment



Food gives your body the fuel and raw materials it needs each day. Just like a car needs gasoline, your body needs energy to move, think and grow. The usable energy you get from food is measured in calories. The more calories a food has, the more energy it can supply. The amount of calories a person needs depends on his or her activities. The body stores extra calories as fat.



Unit Links

The Mysterious Marching Vegetables

Story, p. 1–5

Explorations

Cover (answers p. 8)

However, food provides more than just energy. It supplies the building materials, such as proteins and minerals (like calcium), for muscles, bones and other body parts. Food also has small amounts of other minerals and vitamins that help make energy available for muscles and the brain, and make other body functions possible.

No matter what your age or lifestyle, eating the right foods can contribute to good health. The U.S. Department of Agriculture (USDA) recommends that people select a diet that includes a variety of foods in the proportions indicated on the student page. In addition, it is important to balance the food you eat with physical activity; consume plenty of grain products, vegetables and fruits; choose a diet low in fat, saturated fat and cholesterol; and moderate your intake of sugars and salt.

This activity can be used as a pre-assessment of students' knowledge about nutrition and food needs.

SETUP

Each group of students will observe and describe a different food item. To prevent students from identifying the foods assigned to other groups, all of the food items should be kept inside brown paper bags. You will need to create a set of four identical bags for each group of four students (to allow each student to make his or her own observations). For example, each student in Group 1 will

Sample Setup

| Student Group | Six Basic Food Types: One Food Type per Student Group | Set of Four Bags (1 piece per bag) |
|---------------|---|---------------------------------------|
| Group 1 | Grains: Rice, whole-grain bread, cereals or pasta | macaroni |
| Group 2 | Vegetable: Any non-starchy vegetable (green beans, celery, cabbage, lettuce, or spinach, etc.) | spinach leaves |
| Group 3 | Fruit: Any dried fruit (raisins or prunes, etc.) or fresh fruit (apples, grapes, oranges or bananas) | dried prunes |
| Group 4 | Dairy: Cheese | swiss cheese |
| Group 5 | Protein: Dried beans, nuts or beef jerky | beef jerky |
| Group 6 | Oils, Fats and Empty Calories: Candy or cookie | sandwich cookies |

CONCEPTS

- Food comes in many forms.
- We need a minimum number of servings of certain foods and very little of others.
- There is a lot to know about healthy eating.

OVERVIEW

Students observe and describe samples of different food groups.

SCIENCE, HEALTH & MATH SKILLS

- Observing
- Recording observations
- Predicting
- Inferring
- Drawing conclusions

TIME

Preparation: 20 minutes
Class: 45 minutes

MATERIALS

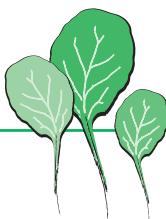
- Food items representing five basic food groups and group of oils, fats and sweets (4 pieces of each item—see Setup)

Each group will need:

- Sheet of white construction or chart paper, 9 in. x 12 in.
- 4 brown paper lunch bags with food item (see Setup)

Each student will need:

- Hand lens (or magnifier)
- Copy of "Healthy Eating" sheet



ROOT OR STEM?



The part of the potato we eat is a specialized underground stem used for the storage of starches.

Photo © Adam Hart-Davis, adam-hart-davis.org.

OPTIONAL PRE-/POST-ASSESSMENT

PICK A FOOD

Select a favorite food and answer the following questions.

- Where does this food come from?
- What other kinds of organisms might eat this food?
- To which food group or food groups does the food belong?
- How many servings a day should someone eat of this food?
- What would you do before cooking or eating this food?
- Where would you store this food?

Draw and write a Nutrition Facts label for your food.

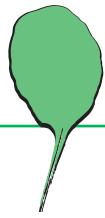
receive a bag with one piece of macaroni. Select a different food type for each student group (see “Sample Setup” chart, page 1).

PROCEDURE

1. Divide students into groups of four. Explain that each group will be responsible for examining and reporting on a specific food item.
2. Distribute a set of bags to each group, explaining that although students may recognize the food, they should not call the name out loud. It will be a mystery food for other groups to identify, based on their observations and prior knowledge.
3. Ask students to observe the food in their bags, using all their senses except taste. Encourage use of the hand lens for closer observation. Questions to ask students include: *How does it feel, sound, look, and smell? Do you recognize this food? Do you eat this food? Do you think it is good for you? How much of this type of food would you need to eat daily? Where does it come from?*
4. Have each student write down his or her observations and anything specific that he or she knows about the food being observed. However, students should not name the food.
5. Students should share their observations within their groups. The groups’ Reporters should make a list of the observations on construction paper. A good way for the group to share responsibilities is to have the members take turns giving one observation at a time for the Reporter to record. Once an observation has been shared, any other group member with the same observation should check it off his or her list. This will continue until all, or at least most, of the observations are listed.
6. Have the Materials Managers place their charts on the wall where all students can view them.
7. Student groups should view each of the charts and decide, based on the recorded observations, what food is being described and whether or not they have additional observations or information about that food.
8. Lead a discussion, based on the information on the charts, with the entire group. Explain that all the foods observed and discussed are necessary, but that different amounts of each are recommended for optimum health.
9. Conclude by using the “Healthy Eating page.” Ask students to identify the group to which each of the foods examined belongs. Have students work in their groups to create a menu for one day that includes appropriate numbers of servings from each of the food groups.

Healthy Eating

Comiendo Saludablemente



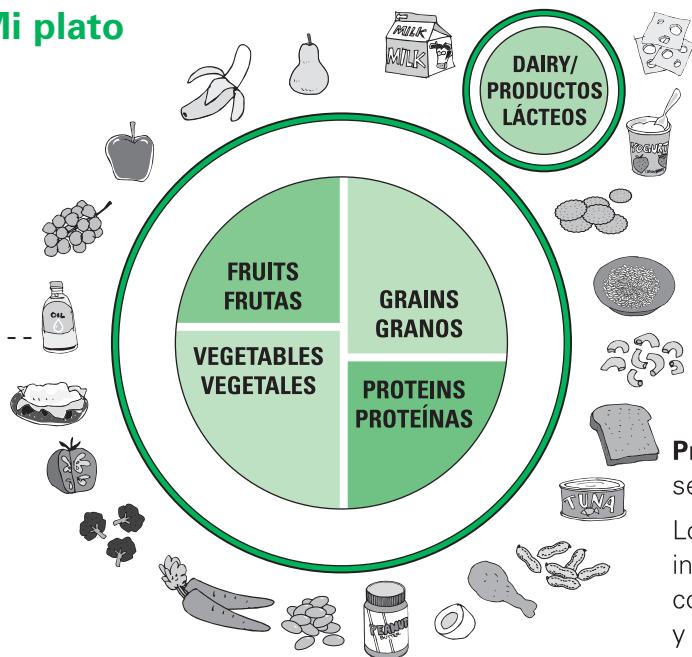
Follow the recommendations below to design a menu for one day. Write the foods for each meal in the spaces below. Use the "My Plate" picture as a guide for each meal. (Hint: The small dairy "dish" can be a cup, bowl or saucer.)

Sigue las recomendaciones para diseñar un menú para un día. Escribe los alimentos para cada comida en los espacios que ves a continuación. Usa el diagrama "Mi Plato" como guía para cada comida. (Sugerencia: el lugar para productos lácteos puede ser un plato o un vaso.)

My Plate/Mi plato

Oils are not a food group. Get your oils from fish, nuts and liquid oils, like corn oil, soybean oil or canola oil.

Los aceites no se consideran como grupo de alimentos. Se debe comer aceites de pescado, nueces, y en forma líquida, como los aceites de maíz, soya o canola.



Be active! Walk, dance, bike—it all counts. Aim for 60 minutes every day.

¡Se activo! Camina, baila, anda en bicicleta—todo cuenta. Trata de alcanzar 60 minutos todos los días.

Proteins include meats, poultry, seafood, dried beans and nuts.

Los alimentos ricos en **proteínas** incluyen las carnes, las aves de corral, los pescados, los frijoles, y las nueces.

Breakfast

Desayuno

Lunch

Almuerzo

Dinner

Cena

Snacks

Merienda
