

***Firefighter George &
The Ringling Bros. and Barnum & Bailey Stars
Present:
Shopping for Nutritious Snacks***

The following lesson encourages students to communicate their mathematical thinking coherently with peers, teachers and others and to recognize and apply mathematics to contexts outside of mathematics (NCTM Process Standards of Connections and Communication). After viewing the video students will have varied opportunities and activities to integrate the information from the video into their understanding of nutrition and mathematics.

Objectives:

Students will be able to:

- Classify pictures of food according to given attributes
- Identify the sections of the food pyramid
- Display the foods according to various attributes on a graph
- Begin, continue or demonstrate making connections between material from non-print sources, his/her prior knowledge, other sources and the world

Materials:

- Start Smarter Video "*Firefighter George & The Ringling Bros. and Barnum & Bailey Stars Present: Shopping for Nutritious Snacks*"
- Crayons
- Scissors
- Magazines
- Pictures of food
- Teacher-made graph
- Teacher-made food pyramid or computer-printed pyramid from www.startsmarter.com (*Optional*)

Background:

Before beginning this unit, you may wish to create a class library of student books relating to snacks and food.

Before this lesson, it would be helpful to search the Internet or read articles to obtain background information about food and nutrition. The website www.kidshealth.org offers valuable information. You may also wish to display the Dole 5 A Day Web site (www.dole5aday.com/Kids/K_Index.jsp) for students to explore.

The teacher may want to prepare a new food pyramid on paper or a shower curtain, or obtain a computer graphic of the new food pyramid by going to www.startsmarter.com.

The teacher may make a graph ahead of time on which to display the students' favorite food groups.

Vocabulary:

Food pyramid (you may also want to introduce the words fruits, vegetables, grains, dairy and meats and nuts, healthy and non-healthy)

Instructional Plan:

1. Provide scissors and magazines and ask the students to cut out pictures of all kinds of snack foods focusing on fruits and vegetables.
2. After all the pictures have been cut out, divide the students into small groups and have them sort and classify the food by any means they choose (e.g. size, color, fruits, vegetables, things they like).
3. After the children have sorted the foods, discuss the ways the students decided to group their pictures. The teacher will define the terms healthy foods and non-healthy foods.
4. Explain to the students that food is often divided into five groups that together make up the food pyramid. Encourage the students to look at the pictures that they cut out and try to predict what they think the five food groups are.

Show Start Smarter's Video, "Shopping for Nutritious Snacks"

5. After watching the video, check the students' predictions for accuracy.
6. Call on volunteers to name foods bought at the store during the video.
7. The children will identify the five food groups (oils can be discussed at a later time).
8. Hold up a picture of a food the students have cut out (or use pictures of foods used in the video which can be downloaded at www.startsmarter.com). Ask the students to identify the food and choose its correct category of the food pyramid. Ask the students to explain why the food belongs in that category.

(*Note:* Teachers may want to make a giant food pyramid using a shower curtain liner or a magnetic whiteboard and have the students use magnets to put their pictures in the correct category.)

9. Continue adding foods to the food chart. Place candy and sweets in a separate category. Can you find two foods that belong to the same section of the food pyramid? How are they alike? How are they different?
10. Note if any sections are still empty. If so, encourage students to name items that can be placed in the missing categories. This is an excellent time to encourage the students to list foods particular to their cultures (e.g. tortillas, fry bread, flatbread, pita bread, matzo) in the various sections of the food pyramid. What is your favorite food from this section of the food pyramid?
11. The students will choose their favorite food group and graph their choices on a teacher-made graph. The students will discuss which food group has more, less or equal foods represented. Are multiple colors of food represented?
12. The teacher will review the five food groups. Ask the students to name some of the foods that were discussed in the video and why these foods are so good for our bodies.
13. The students will be asked to draw healthy foods mentioned in the video or discussed during class, and then turn in to the teacher.

Websites:

Websites that offer nutrition games for kids:

Nutrition Explorations:

www.nutritionexplorations.com/kids/activities/detective2.asphttp://www.dole5aday.com/MusicAndPlay/Play/P_DetectiveGame.jsp?to_pmenu=6

Kids Health: kidshealth.org/kid/stay_healthy/food/pyramid.html

Start Smarter: www.startsmarter.com

Produce For Better Health Foundation: www.5aday.com

Assessment:

Observe the students during small group to check for their ability to sort and categorize objects by various attributes.

Check the students' accuracy in correctly classifying foods according to given attributes of the food pyramid.

Check the students to see if they can correctly identify the sections of the new food pyramid.

Check the drawings to determine if the students were able to illustrate healthy food choices.

Observe to see if the students are able to make connections from the video with their prior knowledge.

Standards and Expectations:

Math

Data Analysis and Probability:

- I. Sort and classify objects according to their attributes and organize data about the objects.
 - A. Compare, sort, and group objects by a given attribute.
- II. Represent data using concrete objects, pictures, and graphs.
 - A. Display information by using objects, graphs, pictorial graphs, and tables.
- III. Describe parts of the data and the set of data as a whole to determine what the data show.
 - A. Interpret information on a graph.

English Language Arts

Communication: Viewing

The student will comprehend and analyze information he or she receives from non-print sources.

Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge. (NCTE standard)

Health Standards

- Tell how sleep, exercise and nutrition make children healthy
- Recognize a variety of foods and snacks
- Name the five healthful food groups of the Food Guide Pyramid
- Demonstrate how to select healthful foods from each of the five food groups
- Demonstrate how to politely refuse a snack that is high in sugar, fat, or salt