

***Firefighter George &
The Florida State University Circus
TEACH NUTRITION
Lesson One***

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 the new food pyramid categories
- Count sets of 10 or fewer objects
- Begin to display the correct numeral for a designated set of objects
- 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 and The FSU Circus Teach Nutrition*"
- Crayons and paper
- Number cards 1-5
- Pictures of food
- Paper plates
- Magazines or Grocery Ads
- Scissors

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.

Vocabulary:

Nutrition, food pyramid (review grains, fruits, vegetables, protein, dairy, 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 healthy foods like fruits and vegetables. Pictures can be cut out or downloaded from www.startsmarter.com.
2. After all the pictures have been cut out, divide the students into small groups and have them sort and classify the pictures of food by the five food groups (Grains, Vegetables, Fruits, Dairy and Meat & Beans).

Note: Oils are an additional group in the food pyramid but are not covered in this lesson as most students have a limited understanding of the advantages and disadvantages of this food group at this age.

3. Shuffle the picture cards and randomly give each student a picture of food. Ask the students to find the other students with foods that are in the same food group (e.g. all fruits: apples, oranges, cantaloupe should be in the same food group).
4. Have each group count how many foods are in their designated food group and find the numeral to match (e.g. if five foods are in the vegetable group, then the children need to find a number five).

5. After the children have sorted the foods, discuss why it is so important to eat foods from all five food groups.

Show Start Smarter's Video, "Firefighter George and the FSU Circus Teach Nutrition", Lesson One

6. After watching the video, call on volunteers to name foods that the FSU Circus performers liked to eat.
7. The students will list as many healthy foods as they can recall from the video, as well as other healthy foods. The teacher and students will count the number listed.
8. Discuss the appropriate servings of food that children need to have daily from each of the five categories in the food pyramid. (www.kidshealth.org provides excellent information on the number of servings children should eat each day.)
9. Distribute a paper plate and a set of number cards from 1-5 to a pair of children. As the teacher discusses each of the food groups and how many servings each child should consume, the students will put that number of items on their plate. (e.g. Children need to eat 3 servings of fruit every day. Each child will pick three types of fruit and place them on their plate.)
10. The students will also find the correct numeral that corresponds with the number of servings in each of the food groups. Continue with all five food groups.
11. The students will choose some of their healthy foods and try to make a healthy meal (breakfast, lunch or dinner). For younger students you may want to assign a meal.
12. The teacher and students will discuss the various foods chosen by the class and offer any suggestions or substitutions. Are multiple colors of food represented?
13. Each pair will draw or cut out pictures to represent their meal. The students will count the number of items in their healthy meal and write that number on the page. The teacher can collect the drawings to make a class book.

For older students: The older students can try to make three meals plus a healthy snack. Have them count the individual totals of grains, vegetables, fruits, dairy, and meat and beans they have in their daily menu. Have the students count the different color groups represented. Have the students make adjustments when necessary. You will want to use number cards 1-10.

Websites:

Websites that offer additional games for kids:

Nutrition Explorations:

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

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

Observe the students to see if they can correctly count sets of 10 or fewer objects in whole and small group.

Observe the students to see if the students can identify the correct numeral to represent each set.

Observe during small and large group discussion to determine if students can recall information from the video and make connections to prior knowledge and to the information being introduced in class.

Standards and Expectations:

Math

Numbers and Operations:

- I. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
 - A. Count with understanding and recognize “how many” in sets of objects.
 - F. Connect number words and numerals to the quantities they represent, using various physical models and representations.

Data and Probability:

- I. Sort and classify objects according to their attributes and organize data about the objects.
 - B. Compare, sort, and group objects by a given attribute.

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