

LESSON 24



Menu Monitoring

Background

Whole-grain products, vegetables, and fruits are key parts of a varied and healthy diet. They provide vitamins, minerals, fiber, and other substances that are vital for good health. They are also generally low in saturated and trans fat, depending on how they are packaged and prepared and what is added to them at the table. Most Americans eat fewer than the recommended number of servings of whole-grain products, vegetables, and fruits, even though the consumption of these foods is associated with a substantially lower risk for many chronic diseases, including heart disease, high blood pressure, and possibly some cancers.

Fruits and vegetables are naturally low in unhealthy fat and provide many essential nutrients and other food components important for health. These foods are excellent sources of vitamin C, vitamin B₆, carotenoids (including those that form vitamin A), and folate. The antioxidants found in plant foods (e.g., vitamin C, carotenoids, vitamin E, and certain minerals) are of great interest to scientists and the public because of their beneficial role in reducing the risk of heart disease and stroke, and possibly some cancers and other chronic diseases.

The Get 3 At School and 5+ A Day promotion, which encourages students to eat more fruits and vegetables, can be used as an extension of this lesson. See lesson 30 in part III, Promotions for the Classroom, for details.

The availability of fresh fruits and vegetables varies by season and by region of the country, but frozen and canned fruits and vegetables ensure a plentiful supply of these healthy foods throughout the year (be sure to scan the ingredients to avoid added sugars, salt, and other extra ingredients in packaged and canned products).

The Principles of Healthy Living promote choosing colorful fruits and vegetables instead of junk food at every meal and snack. Consumption of at least five servings of fruits and vegetables every day is the goal, and more is always better. In this lesson, encourage students to choose vegetables other than potatoes to meet this goal. Potatoes contain vitamins and minerals, but they are digested quickly and are similar to refined grains in their effects on blood sugar. They should only be eaten, at most, a few times a week, and in small portions. (For more information on the effects of carbohydrate on blood sugar, see the background section in lesson 2, Carb Smart.)

Five servings is equal to 2 1/2 cups of fruits and vegetables. One serving can include any of the following:

- *1/2 cup of cooked or raw vegetables, such as baby carrots or cooked green beans*
- *1 cup of leafy greens such as spinach and lettuce*
- *1/4 cup of dried fruit, such as raisins*
- *1 medium piece of fresh fruit (an apple the size of a tennis ball or one medium banana)*

WHAT ARE THE MAIN BENEFITS OF FRUITS AND VEGETABLES?

- They are major sources of vitamins and minerals.
- They are important sources of fiber.
- They are naturally low in saturated fat and do not contain trans fat.
- Research has shown that they reduce the risk of heart disease, stroke, and possibly certain forms of cancer.

Estimated Teaching Time and Related Subject Areas

Estimated teaching time: 50 minutes

Related subject areas: math, science, language arts, music

Objectives

- Design a day's menu of fruits and vegetables, making sure that it includes at least five servings of fruits and vegetables.
- Identify the nutritional values of certain fruits and vegetables.

Materials

- Handout 24.1, What They Do for Me
- Worksheet 24.1, Plan a Menu
- Worksheet 24.2, Create a Frozen Food
- Overhead 24.1, Principles of Healthy Living
- Overhead 24.2, Vegetables and Fruits
- Worksheet 24.1 Solutions
- Green and orange crayons or markers
- Digital recorder, smartphone, or microphone-equipped computer (optional, to record students' songs and raps about fruits and vegetables)

Procedure

Part I

1. Have the students form pairs. Distribute Worksheet 24.1, Plan a Menu, and explain that each pair will plan a healthy full-day's menu of fruits and vegetables.
2. Display Overhead 24.1, Principles of Healthy Living. Review the recommendation to choose colorful fruits and veggies instead of junk food at every meal and snack. Remind students that eating at least five servings of fruits and vegetables each day is a great goal, and more is always better. Explain that they will evaluate their menu to determine whether they are reaching their goal.
3. Ask students why potatoes are not the best choice for reaching this goal. (Answer: Potatoes are not the best choice because, like white bread and white rice, potatoes are digested quickly and give us a quick boost of energy that does not last. Most other fruits and vegetables provide a longer energy boost because the sugar and starches in the food take longer to be digested and enter the bloodstream. Potatoes should be eaten, at most, only once in a while, and in small portions.)
4. Display Overhead 24.2, Vegetables and Fruits. Encourage the students to think of creative ways to include several fruit and vegetable servings in their menus. Encourage them to pick whole fruit rather than juice, because whole fruit contains more fiber and is easy to grab on the go. Note that students should limit 100% fruit juice consumption to no more than 4 to 6 ounces (120-170 ml) per day, because juice is high in natural sugars.

(iron, calcium, vitamins A and C). Review the chart with the class, and have students spot a few of the many fruits and vegetable sources for each nutrient. Discuss why we need these vitamins and minerals.

Part II

1. Have the students score their menu selections by using the How Do You Rate? evaluation scale on Worksheet 24.1, Plan a Menu. Have them color in the Vita-Miner Meter, using green crayons or markers to represent the number of vegetable points and orange crayons or markers to represent the number of fruit points.
2. Have the students review and discuss their ratings and decide whether they need to increase the number of fruits and vegetables in their menus. They should then set a goal for increasing (or maintaining if they already eat at least five servings a day) the number of fruits and vegetables they eat daily.

Although healthy foods from other food groups will have been chosen for the menus, they should not receive any points. The objective of the exercise is to highlight and reward selections of fruits and vegetables.

Part III

1. Distribute and review Worksheet 24.2, Create a Frozen Food. If students are having a hard time coming up with an original product, suggest that they consider ways to make a favorite frozen food more healthy by adding more fruits and vegetables, whole grains in place of refined grains, and healthier protein and fat.
2. Have the students write their own songs or raps about fruits and vegetables. Ask the music teacher to suggest well-known songs that children can write new lyrics to, or to help come up with new melodies. If possible, record the songs or raps so they can be played in the cafeteria during the Get 3 At School and 5+ A Day promotion (see lesson 30).

