

LESSON VI-2: Six Classes of Nutrients

Student Learning Objectives:

- VI-3. Students will define the terms “nutrition,” “nutrient,” and “nutritious.”
- VI-4. Students will name ways the nutrients in food help keep the body healthy.
- VI-5. Students will list six classes of nutrients.

Preparation

- Gather the needed materials.
- Determine which media is available for use in Activity 2.
- Duplicate enough copies of the Student Worksheet, Name That Nutrient, so that each student will have one.

Materials

Equipment

- Filmstrip projector (if using the filmstrip and cassette)
- Cassette player (if using the filmstrip and cassette)
- VCR and monitor (if using the video)

Resources

- Bulletin Board Set: Nutrients
- Filmstrip and Cassette: *Why We Need Food* (6 minutes) -OR- Video: *Our Wonderful Body: Eat Well, Grow Well* (12 minutes)
- Poster: “Health Habits,” from “Lungs Are For Life School Health Posters,” American Lung Association
- Student Worksheet: Name That Nutrient
- Teacher Key: Name That Nutrient

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- Pencils or pens

Time: 25-30 minutes, depending on which media is used

Lesson Procedure

Introduction: 1 minute

Connect this lesson on nutrition with the previous lesson on healthy habits and sleep.

1. Share with the students:

Look at our health habits poster. If you know which one of these health habits helps our brain and muscles rest so they can work properly, close your eyes. Okay, wake up! Who will come up and point to the picture showing this health habit.

Call on a student to point to the picture of sleep.

2. State:

Today our health lesson will be about another health habit. This health habit helps the body keep working its best by providing fuel. Turn to your neighbor and tell him/her what health habit it is.

Does anyone see a picture on our poster showing someone “fueling up”?

Call on a student to point to the picture of eating.

Eating right gives your body fuel to keep on working.

Activity 1: 3 minutes

Define the terms “nutrition,” “nutrient,” and “nutritious.”

1. Write the words “nutrition,” “nutrient,” and “nutritious” on the chalkboard. Pronounce each word and state:

These words sound quite a bit alike because they all start with the same letters, “nutri-,” which means “to feed.”

2. Ask the students what they think each word means. Draw from their responses the following definitions:

- Nutrition is the study of food and its relationship to health.
- A nutrient is the part of food the body uses to work and grow. Since the body cannot make the nutrients it needs, it must get them from food.
- Nutritious is a value judgement placed on food, which states that the food provides something needed by the individual eating it. This is dependent upon both the nutrient content of the food and the immediate needs of the person eating it.

Activity 2: 9-14 minutes

Describe how food helps keep our bodies healthy.

Teacher’s Note: You have one of the following media selections available for use with this lesson: a filmstrip and cassette titled *Why We Need Food*, or a video titled *Our Wonderful Body: Eat Well, Grow Well*. Using the media available to you, conduct the activity described below.

1. Introduce the video or filmstrip by saying:

Think of a time when you didn’t eat enough. How did your body feel?

Ask a couple of students to respond.

We don’t feel well when we don’t get enough food. We are going to watch a (filmstrip or video) that tells about all the wonderful things food does to help keep our bodies working their best.

2. Show the filmstrip *Why We Need Food* or the video *Our Wonderful Body: Eat Well, Grow Well*.
3. Discuss the media by asking the following questions:

What is in food that our bodies need? [nutrients]

What do the nutrients do for our bodies? [They help us grow, make us strong, give us energy, form strong teeth and bones, help us fight sickness.]

What are the six kinds of nutrients? [carbohydrates, fats, proteins, vitamins, minerals, and water]

Why do you think breakfast is important? [It keeps us from running out of gas during the day, keeps us warm, and helps us learn.]

Teacher's Note: If you used the video titled *Our Wonderful Body: Eat Well, Grow Well*, clarify the following points, as needed:

- The video states that fats are the main source of energy. While fats do provide an important stored source of energy, carbohydrates are broken down more easily by the body and comprise the bulk of the diet. Therefore, carbohydrates are the major source of energy.
- The video states that more than half of each person is made of water and uses a diagram of a person partially filled with water to illustrate that fact. The statement is accurate; the body is 65 to 75% water. However, the diagram seems to show the body filled approximately half of water.

Activity 3: 10 minutes

Introduce the six classes of nutrients.

1. Share with the students:

Since nutrients are so important for our health, let's learn more about six key nutrients.

2. Using the Nutrients bulletin board set, discuss each nutrient listed below. List foods containing each nutrient.

- Protein: Protein is used to build and repair body tissues. Foods in the meat/poultry/fish/bean group and the milk/cheese group are good sources of protein. Chicken, peanut butter, eggs, and cheese are all protein-rich foods.
- Fats: Fats are the body's energy reserve. Fats are found in cooking oils, salad dressing, margarine, butter, chocolate, meats, and nuts. Foods in the meat/poultry/meat/bean group and some foods in the milk/cheese group are sources of fat. Of course, foods from the fats, oils, and sweets category are very high in fats.
- Carbohydrates: Carbohydrates are the body's major source of energy. There are two types of carbohydrates: starches and sugars. Sources of starch are bread, cereals, and vegetables. Sources of sugar are sweets, fruit, and milk. Sweets contain refined sugars and include syrup, candy, honey, jelly, pop, and sweetened beverages. Carbohydrates often contain something else the body needs—fiber. Fiber is the part of some foods that is not easily broken down during digestion, but

helps our digestive system work well. For example, the skin of an apple or a potato is a fiber. Fiber is found in foods that come from plants, such as celery, wheat bran, fruits, and cereals. Foods in the bread/cereal group and vegetable/fruit group are sources of carbohydrates.

- *Vitamins: Vitamins are substances which the body needs in small amounts in order to convert proteins, fats, and carbohydrates to energy for body cells. Vitamins can be found in almost every food. Two vitamins you may have heard of are vitamin C and vitamin A. Vitamin C is found in oranges, tomatoes, and strawberries. This vitamin helps our cuts to heal. Vitamin A can be found in orange and dark green vegetables like carrots and broccoli. It keeps our skin healthy and helps our eyes. All food groups are good sources of vitamins. Foods from the fats, oils, and sweets category are not good sources of vitamins.*
- *Minerals: Minerals are body regulators. They help other nutrients do their jobs. One mineral you may have heard about is iron. Iron is found in fortified cereals, liver, dry beans, peas, and meat. Iron is needed by the blood to carry oxygen to the cells, to give us energy to move. Another mineral is calcium. Calcium is found in milk, cheese, and some dark green leafy vegetables. Calcium helps to form strong bones and teeth. Minerals are also found in all food groups. Foods in the fats, oils, and sweets category contribute very few minerals.*
- *Water: Water is essential for the maintenance of life. We must have water for our cells to do their work. Most of our body weight is water. Water comes from food as well as from liquid beverages. Some examples are vegetables, juices, fruits, soup, and milk. Water is found in all food groups.*

2. Distribute the Student Worksheet, Name That Nutrient, and instruct the students:

Complete your worksheet by filling in the missing letter in each food name.

3. Ask the students:

What words are spelled by the missing letters? [They spell the names of the major nutrients found in those foods]

Who can think of one more food source for protein? fat? carbohydrates? minerals? vitamins? water?

Teacher's Note: Food can supply all the nutrients needed for health if a balanced diet is consumed.

Closure: 2 minutes

- Summarize by asking:

As a class, let's plan a breakfast menu that would provide all six classes of nutrients.

Write their menu on the chalkboard.

- Encourage the students to take home their worksheet to share with their families.
- State:

Our next health lesson will teach us more about nutrition.