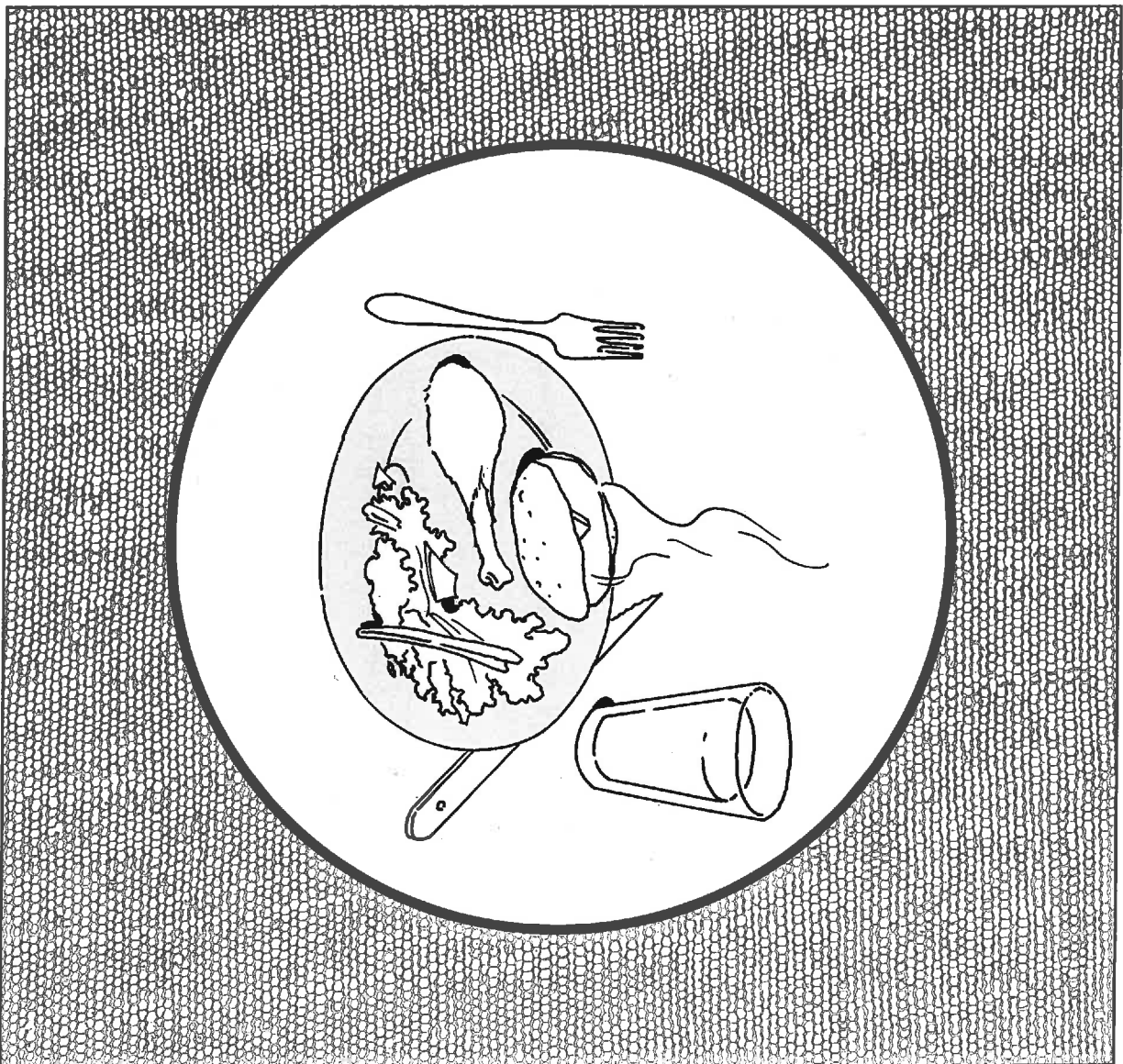


# What are nutrients?

5



**nutrient** [NOO-tree-unt]: chemical substance in food needed by the body for growth, energy, and life processes

# LESSON

# What are nutrients?

## 5

You must eat to stay alive. Food supplies you with certain important chemicals called **nutrients** [NOO-tree-unts]. Your body needs nutrients for growth and energy.

There are five groups of nutrients. Most foods supply several nutrients. Most foods, however, are very rich in one or two nutrients.

All the nutrients work together to keep you in good health. Life cannot go on without these nutrients.

### **CARBOHYDRATES**

Carbohydrates [kar-buh-HY-drayts] supply energy. There are two kinds of carbohydrates, sugars and starches.

### **FATS**

Fats also supply energy. But it is usually stored energy. In addition, fats help keep the body warm.

### **PROTEINS**

Proteins [PRO-teenz] are needed to build and heal tissue. Protein is also an important part of protoplasm [PROHT-uh-plaz-um], the living material of cells.

### **VITAMINS**

Vitamins [VYT-uh-minz] help control chemical reactions in the body. For example, vitamins control the amount of energy that cells give off. Vitamins also are needed for proper growth.

### **MINERALS**

Minerals are important for healthy tissue. For example, minerals build strong bones and teeth. Muscles, nerves, and blood also need minerals.

## WHERE DOES OUR FOOD COME FROM?

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Some animals eat only plants. They are called herbivores [HUR-buh-vawrz].

Some animals eat only meat (other animals). They are called carnivores [KAR-nuh-vawrz].

Some animals eat plants and meat. An animal that eats plants and meat (other animals) is called an omnivore [AHM-nuh-vawr]. Bears, mice, and birds are examples of omnivores. So are humans.

Think of all the things you eat. Do you eat only plants? Do you eat only meat? Probably not. You obtain your nutrients from both plants and other animals.

Ten common foods are listed in the chart. Some of these foods come only from plants. Some come only from animals. Others are mixtures of plant and animal products. You decide where each food comes from.

### COMPLETE THE CHART

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Mark a *P* next to the foods that come only from plants. Mark an *A* next to the foods that come only from animals. Mark a *P/A* next to foods that are mixtures of both plants and animals. Then, fill in the third column about each food.

	FOOD	P, A or P/A	Do you eat this food?
1.	bread		
2.	corn		
3.	lamb chops		
4.	clam chowder		
5.	steak		
6.	pancakes		
7.	beef stew		
8.	milk		
9.	eggs		
10.	tuna salad		

Answer these questions.

1. Do people eat only plants? \_\_\_\_\_
2. Do people eat only animals? \_\_\_\_\_

3. What do we call any animal that eats both plants and animals?

## THE IMPORTANCE OF WATER

You have just learned that nutrients are very important. Another substance also is vital to life. It is water. In fact, water is one of the most important substances. You could live for a few months without food. You could live only a few days without water. Why is water so important?

- Our cells are mostly water.
- The life functions cannot take place without water.

How do you get water? Of course you can drink it, but all foods also contain water. Some foods have a great amount of water. Others have only a little water. We can find out if a food contains water by performing a simple test.

## TESTING FOR WATER

### What You Need (Materials)

test tube and holder  
food to be tested (pieces of fruit or vegetables or any other food)  
Bunsen burner



### How To Do The Experiment (Procedure)

- 1) Place the food into the test tube.
  - 2) Heat gently over Bunsen burner. Be sure to tilt the tube away from you.
- Moisture on the inside of the test tube near the top means that the food has water.

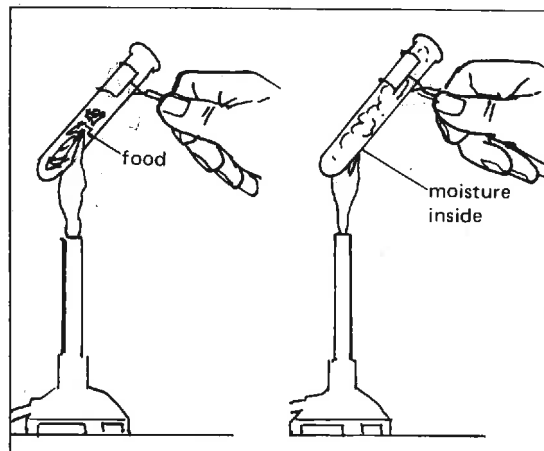


Figure A

### What You Learned (Observations)

Answer these questions about the test for water.

1. Did moisture form on the inside of the tube? \_\_\_\_\_
2. Do you think the moisture came from the food or the air? \_\_\_\_\_

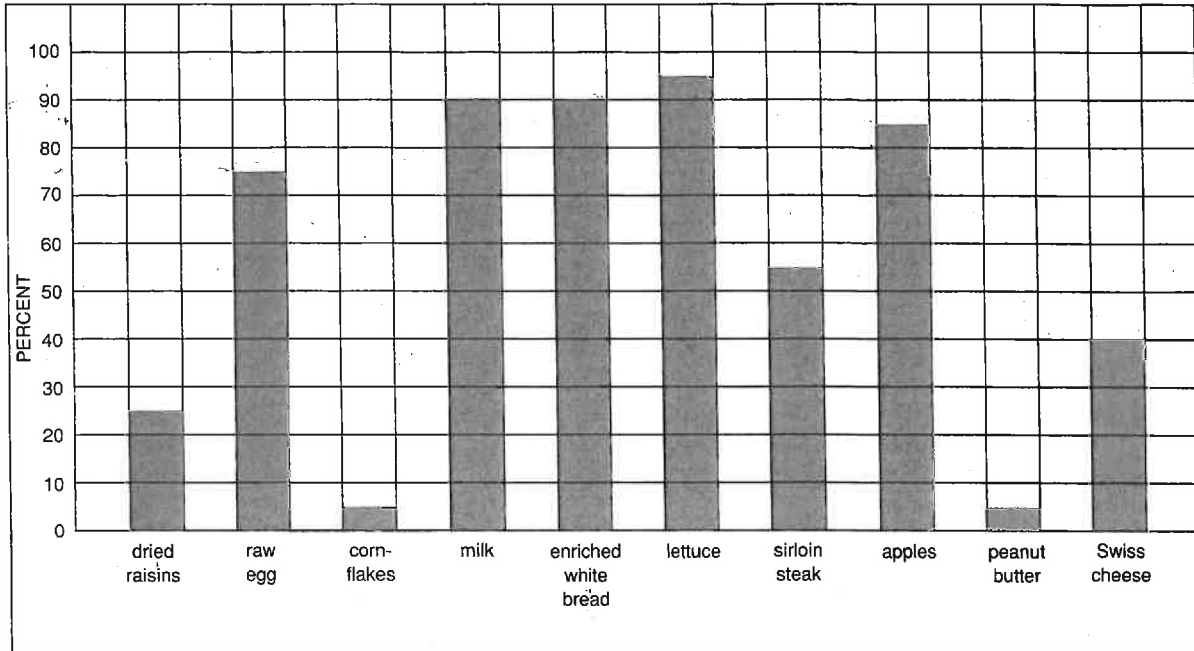
### Something To Think About (Conclusion)

Does the food that you tested have water? \_\_\_\_\_

## WORKING WITH GRAPHS

The graph below shows, in percent, how much water there is in some foods. Study the graph for a few minutes. Then answer the questions below.

### PERCENT OF WATER IN FOODS



1. What percentage of water does each of these foods have?

a) dried raisins \_\_\_\_\_

f) lettuce \_\_\_\_\_

b) raw egg \_\_\_\_\_

g) sirloin steak \_\_\_\_\_

c) cornflakes \_\_\_\_\_

h) apples \_\_\_\_\_

d) milk \_\_\_\_\_

i) peanut butter \_\_\_\_\_

e) enriched white bread \_\_\_\_\_

j) Swiss cheese \_\_\_\_\_

2. Which of these foods has the most water? \_\_\_\_\_

3. Which of these foods has the least water? \_\_\_\_\_

## READING LABELS



**Figure B**



**Figure C**

Every packaged (canned, boxed, or frozen) food has a label. That's the law! The label lists the ingredients found in the food. The ingredients are listed in order of quantity (amounts). The ingredient found in the greatest amount is listed first. The ingredient with the smallest amount is listed last.

The main contents of a popular cereal are listed below. Study the label. Then answer the questions.



**Figure D**

1. The ingredient found in the greatest amount is \_\_\_\_\_.
2. The ingredient found in the least amount is \_\_\_\_\_.
3. This cereal tastes good to many people.
  - a) Why do you think many people like the taste? \_\_\_\_\_
  - b) Do you think this is a healthy cereal? \_\_\_\_\_  
yes, noWhy? \_\_\_\_\_