

ACTIVITY

# 1

## Where Does Food Come From?

*Students learn that the foods they eat ultimately depend on agriculture.*

### What You Need to Know

For most of human history, the production of food necessitated the efforts of nearly every adult in a community to hunt, gather, plant, or harvest. In the United States today, few people are directly involved in the production of the raw ingredients of the food we eat. As a result, many of your students may not realize that food comes from somewhere other than the supermarket, necessitating a number of steps in getting food from where it is raised to their table.

### What You Need to Have

- photograph or drawing of a cheeseburger on a bun with toppings such as lettuce, tomato, pickles, mayonnaise, ketchup

### What You Do

1. Ask students where their families obtain their food. Do their families grow or raise any of their food or know anyone who does? Have they ever seen food being raised?
2. Ask students to list the parts of a cheeseburger: beef, cheese, bun, etc. Would they believe that everything in the cheeseburger can be traced back to the soil?
3. Begin to create a "Food Tree" by displaying the picture of a cheeseburger. Taking one part of the cheeseburger at a time, students trace the ingredients in each part backwards to its origins—ultimately, the soil.

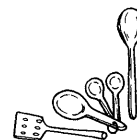
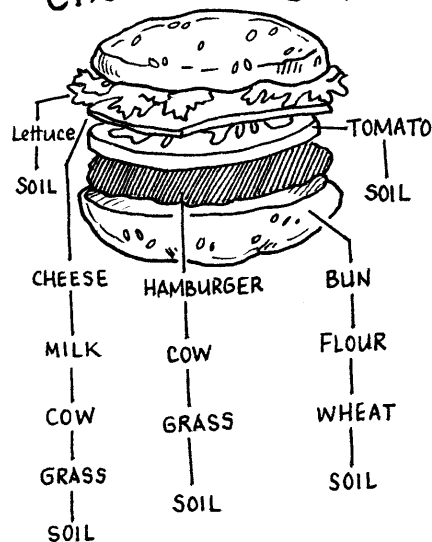


(For example: CHEESE — MILK — COW — GRASS — SOIL)

Ask students to explain which parts of the cheeseburger go through the most steps to become food, and which go through the least.

4. Have students make their own "Food Trees" using another of their favorite foods.

### Cheeseburger



## CHAPTER 7



### SCIENCE

*"Thank you for coming. I didn't know that (for) every pound we gain your heart has to beat an extra mile."—Mark*

When my first grade daughter approached me about project ideas for her school science fair, I naturally thought of all the possibilities that related to nutrition (next time, perhaps, she'll ask her Dad!) The idea that sparked her interest the most was to survey her class and analyze their eating habits. By the time we finished this humble undertaking, she had gained skills in a variety of subject areas. She developed a simple questionnaire that her classmates used to record their diet for one day, analyzed and compared their daily diet with the *Food Guide Pyramid*, and presented her data graphically, using her best art skills to design, color and display her work.

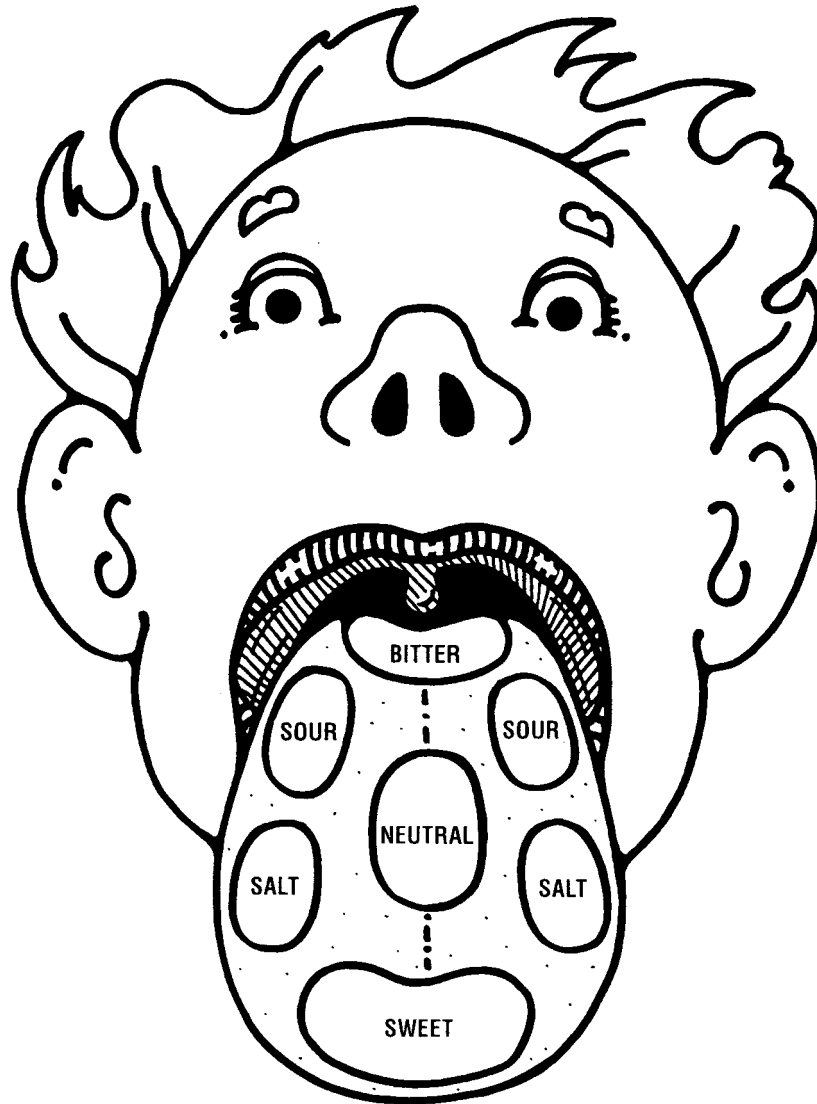
Because nutrition is a science, the prospects for science activities are limitless. This chapter presents learning ideas in three areas: food in the body, the study of plants as food, and how kids can use the scientific method to conduct nutrition research.

#### **Food In The Body**

Nutrition is the science of how the body uses food. Even young children can gain an appreciation of how food is broken down and used inside the body. The food we eat goes through five stages of processing: digestion, absorption, circulation, metabolism, and excretion. Simple explanations with engaging experiments and activities will bring these concepts to life.

**TASTE AND SMELL** Our experience with food starts with our nose and tongue. The sensation of taste is actually a combination of smelling the food and using

## TONGUE MAP



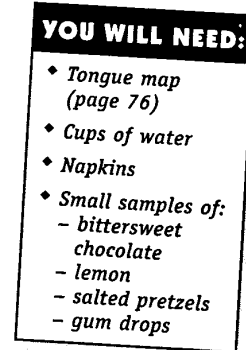
Enlarge and reproduce for educational use.

the tongue to detect flavors. Different areas of the tongue are responsible for picking up different sensations—salty, sweet, bitter, or sour, shown on the “tongue map” on page 76.

### ACTIVITIES

- At snack or mealtime, instruct children to take a bite of one food and describe how it tastes. Next, have them hold their noses and take a bite of the same food. Ask them to describe the taste of the food and how it changed. Discuss how the sense of smell plays a part in detecting the flavor of foods.
- Students can learn to identify the different taste areas on the tongue. Supplies for this activity include cups of water, napkins, and small samples of food that represent each flavor: bittersweet chocolate, lemon, salted pretzels, and gum drops.

Enlarge and reproduce the tongue map on page 76. Redraw the map on the board or make into an overhead transparency. Ask children to experiment by placing samples on various parts of their tongue and noting the flavor. Between each sample, students should take a sip of water and blot their tongues with a napkin. Ask children whether they can taste bitter foods on the salty area or sweet flavors on the sour area, etc.



**DIGESTION** is the process of breaking food down into millions of tiny pieces. Beginning in the mouth and ending in the toilet, food covers a route about 25 feet long, all inside the body! After the **mouth**, food travels to the **stomach** by way of a tube known as the **esophagus**. Most of the “action” of digestion occurs in the **small intestine**, a 20 foot long organ that completes digestion and transfers nutrients through its walls to the blood stream. In the **large intestine** (larger around, but much shorter in length than the small intestine), water is added to waste products, making a paste that can be excreted.