
Stem, Root, Leaf, or Fruit?

Description

Students classify foods and spices they eat according to plant parts and make a vegetable and dip snack.

Objective

To identify and classify the parts of food we eat.

Materials

Life Lab journals
Sample of fresh spices from list of answers at end of activity
Vegetables for snack (carrots, celery, spinach, broccoli, peas, sunflower seeds)
Dip for snack (cottage cheese, onion dip, and so on)
Cutting board and knives

Preparation

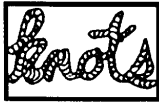
Make up a picture chart of foods and spices that will be available in the classroom for this activity (see the "Food Categories" chart on the next page).



Name some plants that you eat. (List responses on the chalkboard.) Do you eat the whole plant or part of it? Let's list the different parts of plants. (root, stem, leaf, bark, flower, fruit, and seed) Do you think we eat all of these different parts? (Record predictions.) Can you name the different parts of the plants we listed that you eat? (List the part name(s) next to each plant).



1. Group students in pairs and have them refer to the picture chart of foods and spices.
 2. Have students make seven category headings in their Life Lab journals: root, stem, leaf, bark, flower, fruit, and seed.
 3. Tell them to write each food in one of the categories, according to what part of the plant we eat. For example, a walnut is a seed, an eggplant is a fruit, and so on.)
 4. To introduce students to the wonderful world of spices, have them use their senses to explore the samples you have collected.
 5. Challenge students to try classifying the spices. This tends to be a little more difficult for students, so if they cannot put the spices in categories, guide them through.
 6. Now have students enjoy their new knowledge. Have them cut up vegetables and use the spices to prepare a dip. Be sure that they name the part of the plant they are eating.
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What is your favorite vegetable? Which part of that plant do you eat? What is your favorite root, leaf, stem, bark, flower, fruit, and seed?



1. Have students describe their last meal in terms of plant parts. For example, a peanut butter and jelly sandwich would be ground-up seeds (peanut butter) and crushed fruit (jelly) on ground-up and baked seeds (bread).
2. Have students design a three-course meal composed only of one category. How would they enjoy such a meal?
3. Have students plant a garden bed according to the plant parts they eat, with a section for each category.

FOOD CATEGORIES						
ROOT	LEAF	STEM	BARK	FLOWER	FRUIT	SEED
CARROT	BASIL	CELERY	KINNAMON	BROCCOLI	TOMATO	PEPPER
ONION	PARSLEY	KOHLRABI		CAULIFLOWER	EGGPLANT	DILL
RADISH	SPINACH				APPLE	CARAWAY
GINGER	LETTUCE				BANANA	CHOCOLATE
	MINT					BEAN
						RICE
						WHEAT

Onions and ginger are not roots. Onions are bulbs consisting of the lower parts of leaves attached to a very short stem. Ginger is an underground stem. Celery is one kind of a stem. a stem of a leaf. A very small part of a head of broccoli consists of flower buds. If broccoli is not harvested before the flowers develop, it is not acceptable as a vegetable. Broccoli almost entirely stems. Cauliflower is all stems. each tiny bump on the surface of a head of cauliflower is the tip of a fast growing stem. These are plant part categories of some of our foods.