

# Plant Parts We Eat

*Wyoming Science, Health*

## Objectives:

- Students will relate what is in their salads to what part of the plant they come from.

## Background:

Which parts of the plant do we usually eat? The seed? The fruit? When we eat asparagus, we are eating the stem of the plant. When we eat spinach or lettuce, we are eating the plant's leaves. We eat the fruit of squash, cucumber and tomato plants.

When we eat corn or peas we are eating seeds, and when we eat radish or carrot, we are eating roots. Cauliflower and broccoli plants produce flowers we like to eat.

With some plants we eat more than one part. The root of the beet plant is what most people like to eat, but the leaves are also good to eat—in salads, when the leaves are young and tender, and cooked like spinach when they get bigger. We eat the root of the onion plant but can also eat the stems, for a milder flavor.

Some of the plants we eat are poisonous if we eat the wrong part. The leaves of tomato plants are poisonous. For many years people would not even eat tomatoes, because they thought the entire plant was poisonous. Now we know that tomatoes have vitamins that are very good for us and even prevent some diseases. They are also delicious—sliced or chopped fresh into salads, cooked into spaghetti sauce or processed into ketchup.

### **FLOWER BUDS**

Did you know that eating broccoli or cauliflower means that you are eating flowers? The white head of the cauliflower is made up of little white flowers. We can eat them raw in salads or cooked in various dishes. I like them best when they are still raw because they are extremely crunchy! The little green buds of the broccoli plant are also delicious to eat either raw or cooked. What other flowers do you eat?

### **FRUIT**

Tomatoes, peppers, cucumbers, and pumpkins are plant fruits that we eat. Fruit vegetables grow on vines or on separate plants. Tomatoes are smooth, round, and juicy with a slightly acidic taste. They are green at first and become red, orange, or yellow when they ripen.

There are many different kinds of peppers and all of them can be sweet, mild, or spicy. Like the tomato, they are



## Standards

### Science

Life Systems: 1.1, 1.3

### Health

Health Promotion & Disease Prevention: 1.5

## Materials

- One large salad bowl
- Pretend salad ingredients (such as plastic or cloth available from the craft section of department stores)
- Empty food containers or laminate pictures from magazines
- Six Bowls labeled with the different plant parts as follows: Roots, Stems, Leaves, Flowers, Fruit, and Seeds
- Container labeled olive oil
- Container labeled cider vinegar
- Large background drawing of various vegetables as they would appear in the garden

## Estimated Time

60 Minutes

## Grades 1-2

## *notes:*

green when they are young and change color at maturity. Cucumbers can be used to make yummy pickles or eaten raw in a salad.

Pumpkins are used to make pies, breads, and cookies. Most importantly, pumpkins ripen in the fall just before Halloween so that we can carve scary faces into them!

### **LEAVES**

The tasty leaf plants that we eat can be eaten raw or cooked, depending on what our taste buds crave. Lettuce, parsley, and basil are usually eaten raw in a salad. Cabbage and spinach are usually cooked before eating. Some leaf plants like spinach have loose leaves. But have you ever noticed that the leaves of a cabbage head are packed very tightly next to each other? Cabbage heads look like round like soccer balls. At the grocery store, look at all the different kinds of pretty leaf vegetables!

### **ROOTS**

If you are eating carrots, sweet potatoes, turnips, or beets, you are eating roots! How did these roots get so fat? It is because the plant ends up taking in more food than it can use, and so it stores the extra food in its roots. Then these roots get bigger and bigger until we pull them up and eat them!

Rabbits like carrots too. They can make home gardeners and farmers very angry since they often steal carrots before we get a chance to pull them out of the ground.

Bulbs are thin, tightly folded layers of leaves attached to a short stem. The base of these leaves is big, and it grows underground.

Bulbs are a type of root. A good example of this bulb is the onion. They are so strong in flavor that they can make you cry if you are slicing them up with a knife!

Since onions grow underground and we can't see them, how do we know when they are ready to be dug up? Well, we can dig them up when the part of the plant above ground turns brown, meaning that it is starting to die and the onions have matured.

Other bulb type root vegetable that we eat include garlic. It has a very different flavor from an onion and it is probably one of the strongest flavors of all the vegetables. Green onions, which are also called scallions or chives are bulbs. These are good in soups and salads.

Tubers, like bulbs and roots, grow underground. When you are eating a potato, you are eating a tuber. Have you ever seen a potato looking at you? The spots on a potato are called eyes. They are actually undeveloped buds where new plants can grow from. So if we wanted to grow more potato plants,

we could cut a big potato into small pieces and plant the pieces that have at least one eye. We would not have to buy new seeds.

### **SEEDS**

When you eat peas, kidney beans, lima beans, or sweet corn, you are eating the plant's seeds. They can be eaten both dried and fresh depending on how you like them.

Corn is everybody's favorite. It can be made into bread, popcorn, or cooking oils. My favorite is corn on the cob with a warm pad of butter melting on it! (Note: Each corn kernel is actually a whole fruit).

### **STEMS AND STALKS**

The stems and stalks of a plant support its leaves, flowers, and fruits. We eat the crispy celery stalk and the stem of the asparagus plant. Celery sticks are a yummy snack, especially if they are eaten with peanut butter! Look at one of the picture to see how green the celery stem is!

When green asparagus stems come through the ground, they are cut just below the top of the soil. We eat the stalks of asparagus plants.

## **Activity Preparation:**

1. Set up a small table with a large bowl in the center. Fill the bowl with an assortment of salad ingredients (see list for ideas) Place the oil and vinegar containers next to the bowl. Place six labeled bowls around the table. For each plant part bowl, create an index card answer key that lists the salad ingredients in the large bowl that are from that part of the plant. Attach to the bottom of the plant part bowls.
2. Make a large drawing of many of the salad ingredients as they would appear growing in the garden. Mount this drawing on the wall behind the table. This often helps the students to identify plant parts on vegetables they are not familiar with.

Write down the following directions on or near the table of vegetables:

*Peter Rabbit loves to munch on leaves, stems and roots. How about you? Sort the items in this salad bowl into the different plant parts you are eating when you enjoy a bowl of salad.  
And don't forget the dressing.*

## *notes:*

### **Possible Salad Ingredients:**

**Roots:** Carrots, beets, radishes.

**Stems:** Celery, asparagus, spears, onions

**Leaves:** Lettuce, spinach

**Flowers:** Tomatoes, cucumbers, avocados, olives, olive oil, cider vinegar

**Seeds:** Croutons (from wheat seeds) chick peas, alfalfa spouts

## Activity Procedure:

1. Have the students work on pairs. Direct them to sort the salad ingredients in the large bowl into their proper plant part categories into the smaller bowls. Have them check their answers with the cards attached to the bottoms of the smaller bowls.
2. Hand out Student Worksheet A. Read the worksheet with your class, and discuss the different plant parts. Help students identify the plant parts we eat.
3. Discuss the colors of the plant parts we eat. Have students color the pictures on their worksheets.
4. Hand out Student Worksheet B, and have students draw lines from the plants pictured to the correct words, using Student Worksheet A as a guide.

## Additional Activities:

1. Read the book Tops and Bottoms by : Janet Stevens
2. Bring a variety (root, leaf, stem, and flower) of vegetables to class, and let students sample them with vegetable dip. Have students vote on which vegetables they like best—root, stem or flower. Graph the results.
3. Bring grocery ads to class, and have students find the price for one pound of roots, one pound of stems, one pound of fruit and one pound of flowers. Have students create math problems using the prices.
4. Read the story Stone Soup to your students. As you read the story, have students identify the vegetable ingredients as root, fruit, etc. Bring a crock pot to class, and use assorted plant parts to make your own classroom stone soup.
5. Bring samples of some vegetables students might not ordinarily eat, e.g., turnips, kale, mustard greens, etc., and invite students to taste them and guess which part of the plant they came from.
6. Take a trip to the produce section of a grocery store, and have students identify vegetables and designate which part of the plant is eaten.
7. Early in the fall or spring, help students plant some fast growing cool weather vegetables (radishes, lettuce, spinach, peas, beets, etc.) to harvest and eat.
8. Write the cafeteria menu on the chalkboard. Look at the vegetable of the day, and have students say whether it is a stem, seed, flower, etc.

*Materials Adapted from Oklahoma Ag in the Classroom & Project Seasons*


Name \_\_\_\_\_

# Plant Parts We Eat

A


Color the vegetables. Make them look good enough to eat.

You eat our roots.




beets                      carrots                      radishes

You eat my stems.




asparagus

You eat our leaves.



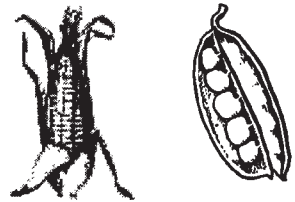
cabbage                      lettuce

You eat our fruit.




pepper                      tomato

You eat our seeds.



corn                      peas

You eat my flowers.



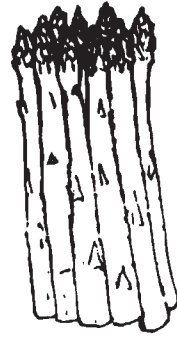
cauliflower

Name \_\_\_\_\_

# Plant Parts We Eat

B

Match the plants to the parts we eat.



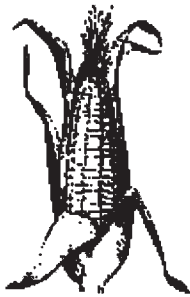
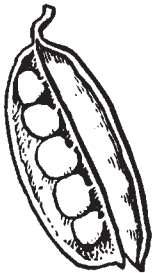
roots

stems

leaves

seeds

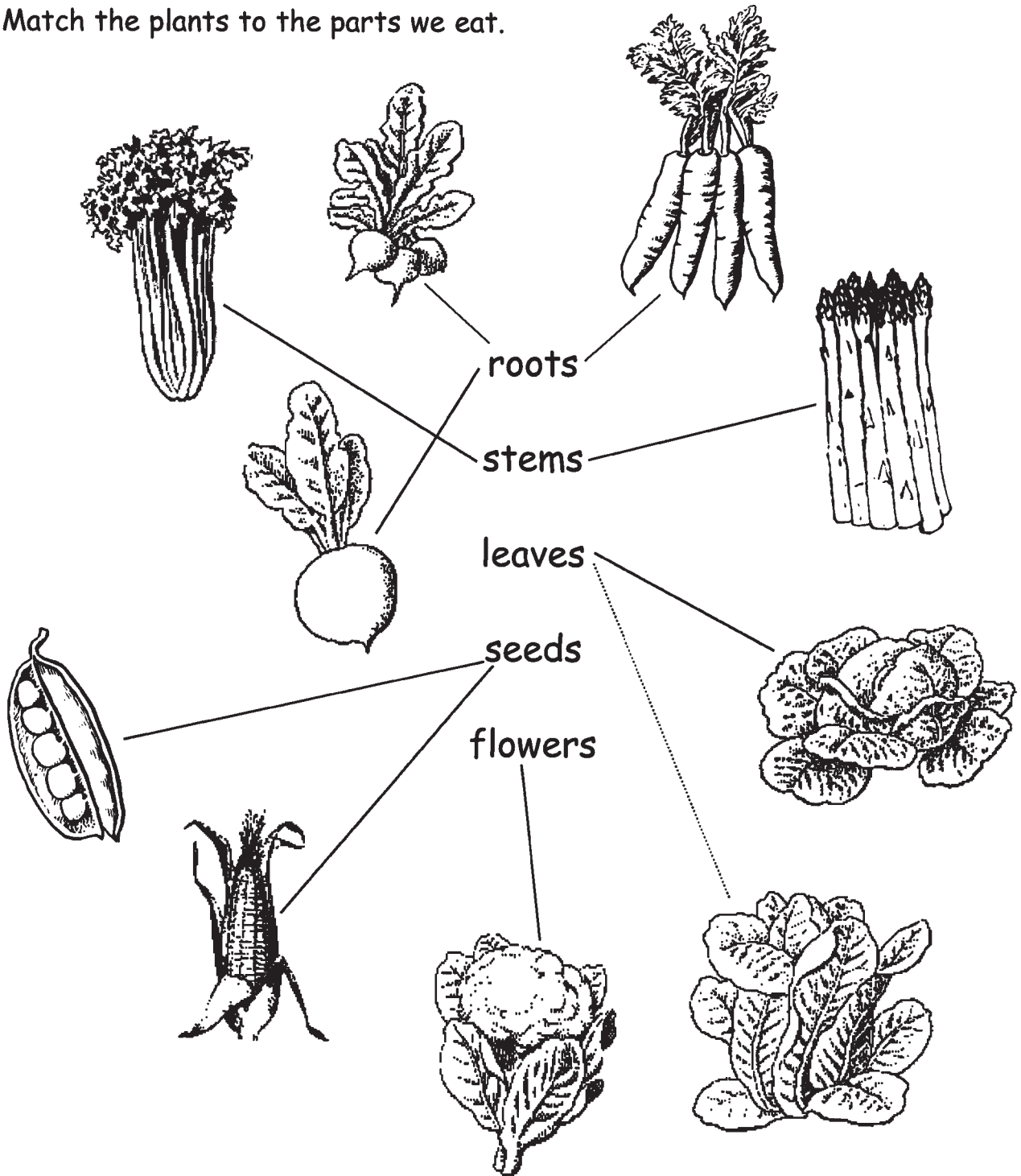
flowers



Name \_\_\_\_\_

# Plant Parts We Eat (Answers)

Match the plants to the parts we eat.

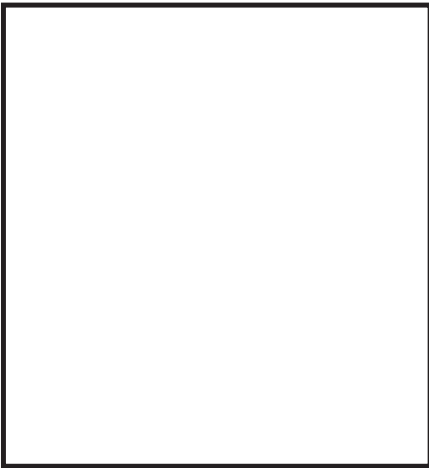


# What Plant am I ?

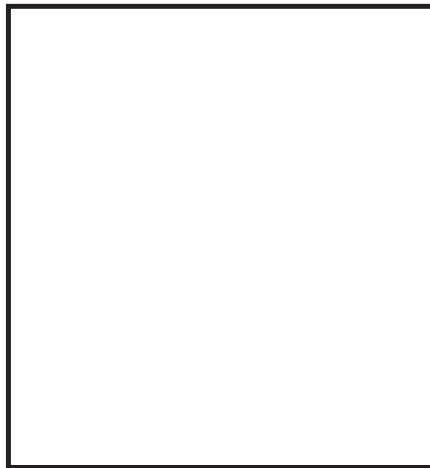
Name \_\_\_\_\_

*Think about each of the nutritious plant parts you have learned about.  
Draw a picture of each different kind of plant part.*

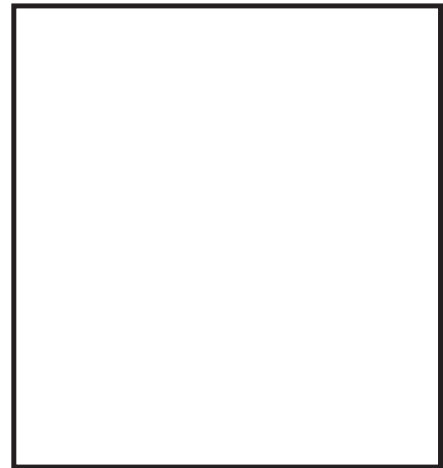
Root



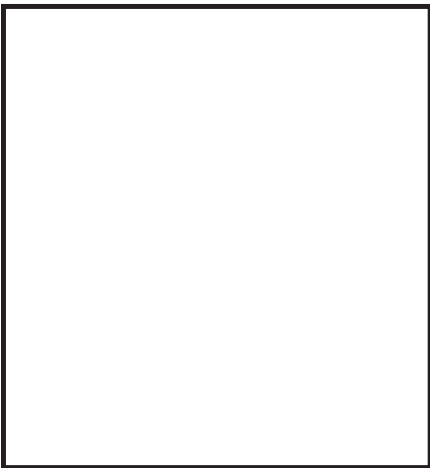
Seed



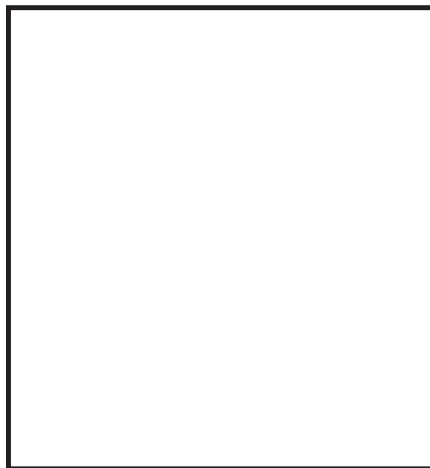
Leaf



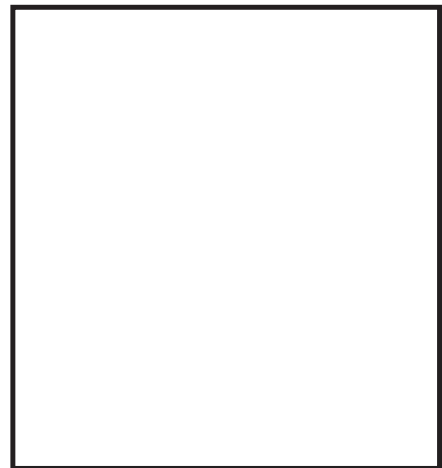
Fruit



Flower



Stem

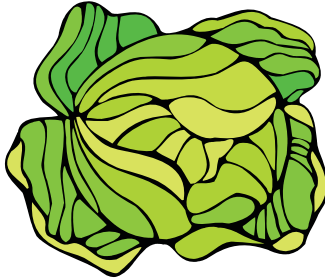


# What Part am I ?

Name \_\_\_\_\_

Look at each picture, read the words, and circle the correct answer.

**cabbage**



root     fruit  
seed     flower  
leaf     stem

**broccoli**



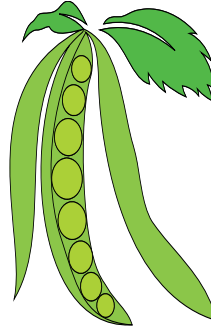
root     fruit  
seed     flower  
leaf     stem

**pumpkin**



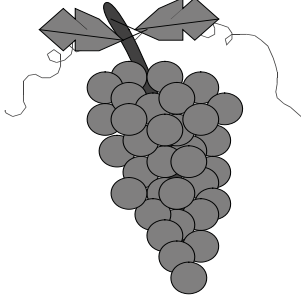
root     fruit  
seed     flower  
leaf     stem

**peas**



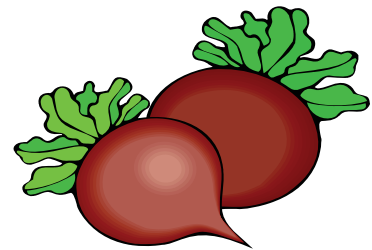
root     fruit  
seed     flower  
leaf     stem

**grapes**



root     fruit  
seed     flower  
leaf     stem

**beets**



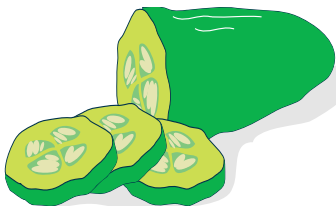
root     fruit  
seed     flower  
leaf     stem

**rhubarb**



root     fruit  
seed     flower  
leaf     stem

**cucumber**



root     fruit  
seed     flower  
leaf     stem

**potatoes**

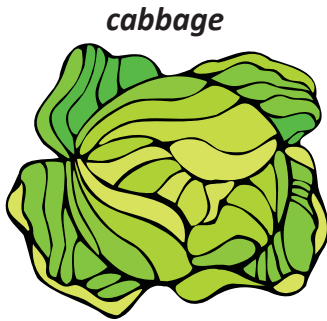


root     fruit  
seed     flower  
leaf     stem

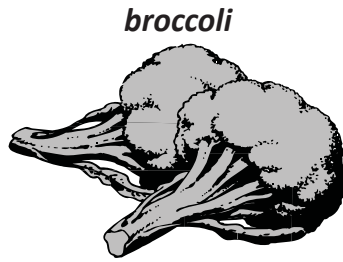
# What Part am I ?

Name ANSWER KEY

Look at each picture, read the word, and circle the correct answer.



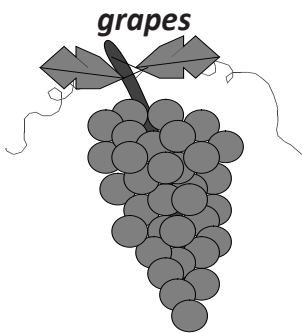
root      fruit  
seed      flower  
leaf      stem



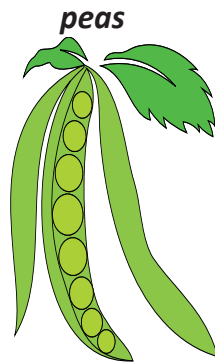
root      fruit  
seed      flower  
leaf      stem



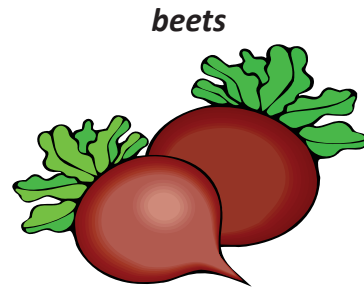
root      fruit  
seed      flower  
leaf      stem



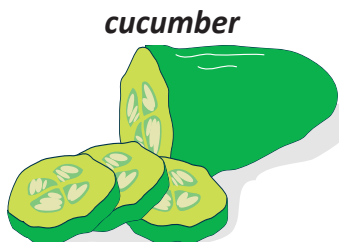
root      fruit  
seed      flower  
leaf      stem



root      fruit  
seed      flower  
leaf      stem



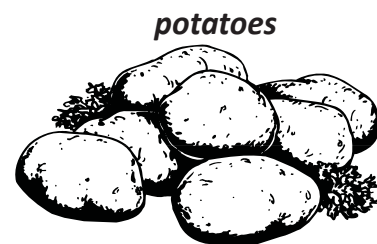
root      fruit  
seed      flower  
leaf      stem



root      fruit  
seed      flower  
leaf      stem



root      fruit  
seed      flower  
leaf      stem



root      fruit  
seed      flower  
leaf      stem