

Begin each nutrition education lesson with a short physical activity break from the card set provided by IDPH. Have fun and get active with your students!

Objectives

Learn the special characteristics of these vegetables. Identify the different parts of a plant they come from.

Learn that vegetables are easy to eat as snacks.

Supplies Needed

September
Pick a **better** snack[™] & **Act**bingo card

Activity Sheets:
"We Eat Different Parts of the Plant"

Optional:

"Tasty Plants" Puzzle "Container Tomatoes" worksheet

Lesson aids:

A fresh carrot, celery stalk, lettuce leaf, broccoli, corn, apple, zucchini, tomato

Tasting Opportunities

Featured Vegetables: Zucchini Tomatoes

Background

Zucchini: Squash are fleshy vegetables protected by a hard rind. They belong to the plant family that includes melons and cucumbers. Zucchini is part of the summer squash family that can be dark green, light green, bright yellow or any combination. They are tender and tasty when young, but most varieties are tasteless when large and overgrown. Squash has been a staple for the Native Americans for more than 5,000 years, and was a mainstay for early Europeans who settled in America. George Washington and Thomas Jefferson were enthusiastic squash growers.

Tomato: Currently, tomatoes are one of the most popular vegetables eaten by Americans. They are high in vitamin C and also provide beta-carotene. Botanically speaking, the tomato you eat is a fruit. A "fruit" is any fleshy material covering a seed or seeds. Horticulturally speaking, the tomato is a vegetable plant. The plant is an annual and non-woody.

Roots: Why do plants have roots? Roots function like feet. They help plants stay firmly in the soil. How do you suppose roots also are like our mouths? They take up water for the plants. Nutrients from the soil enter plants through their roots and help them grow. The water and minerals move from the roots to the stems. Roots come in many different shapes and sizes. Some plants such as beans and tomatoes have thousands of long, thin roots that reach deep into the soil. Some plants such as carrots and radishes have one long, thick, fat root that has smaller roots coming off it. (Hold up a real carrot.) Can we eat this root? What is the name of this vegetable that is a root of a plant? We also eat the thick roots of plants such as sweet potatoes. They are very healthy because of the nutrients they store.

Stems: The stems on plants work like straws. They move water and minerals from the roots up to the leaves and flowers. They also move food that is made in the leaves down to the other parts of the plant, such as the roots, where it is stored. In most plants, the stems support the plants and hold the leaves and flowers, the same way your body holds your arms and legs and keeps you standing tall. (Hold up a







Additional Background

celery stalk with the leaves still on the end). Can we eat this stem? What is the name of this vegetable that is a stem on a plant? Where are the leaves and roots? Can you see how food and water would move up and down this stem? We also eat another vegetable that is a stem called asparagus. Have you eaten asparagus? What does it look like?

Leaves: Leaves are very important parts of a plant. They make food that helps the plant grow. They use sunlight, air, and water to make food. Different plants have many different leaf shapes and sizes. You can often tell what kind of plant it is by looking at its leaves. (*Hold up a lettuce leaf.*) Can we eat this leaf? What is the name of this vegetable that is a leaf of a plant? Can you think of other leaves that we eat? Are they different shapes, sizes, and colors?

Flowers: Flowers are usually the prettiest part of the plant. A plant makes flowers to produce seeds. When the flowers die, you may see a fruit, a pod, or a cluster of seeds in the same place the flower bloomed. Flowers are colorful and smell good to attract insects such as bees. These insects pollinate the flowers, which helps form the fruits, pods, and seeds. Seeds are found inside the fruit or pods of tomatoes and peas or on the outside of strawberries and sunflowers. (Hold up a piece of broccoli.) Can we eat this flower? What is the name of this vegetable that is a flower of a plant? (Hold up a container of corn, unless you can find fresh sweet corn.) What is the name of this vegetable that is a seed? What part of a plant does a seed come from? (Hold up an apple.) What is the name of this fruit? What part of a plant does fruit come from? What will you find inside the apple? Fruits contain seeds that start from the flower part of a plant. The parts of plants that we eat are called fruits and vegetables. We should eat a lot of fruits and vegetables because they are good for us.







Web Site Resources

www.idph.state.ia.us/pickabettersnack www.fruitsandveggiesmorematters.org www.choosemyplate.gov

Do the Activity: We eat different parts of the plant

Hand out activity sheet entitled "We Eat Different Parts of the Plant" or use as a reference.

Plants, like people and animals, have different parts. What are some of your parts? (Arms, legs, feet, hands, ears, toes, head, neck, etc.)

Plants have four basic parts. Do you know what they are? (Roots, stems, leaves, and flowers)

Have students draw a line connecting a part of the plant with the word that names the plant part. Do this while you are discussing the plants or as an activity after the discussion. OR

Draw a plant on the board and have the students help label the parts. Have each student think of a fruit or vegetable and then decide what part of the plant that fruit or vegetable it would be.

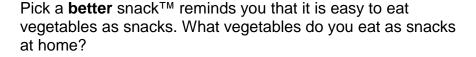
Talk It Over:

Is a tomato a fruit or a vegetable? You can see why some people call tomatoes "fruit." They are the "fruit" of the plant.

Can you think of other vegetables that are the "fruit" of the plant? (Hint: One of these is featured on the September Pick a **better** snack & **Act** bingo card along with tomato.)

Zucchini. Other vegetables that grow as fruit are eggplant, pumpkin, other types of squash, and cucumbers.

Apply:





Tasting Opportunity How many of you have ever eaten zucchini? Tomato?

Have the students wash their hands. Cut up zucchini and tomatoes for the students to sample.

They can then put an "X" through the bingo square of the vegetable they sampled.

How would you get zucchini ready to eat as a snack?







– Wash. Slice. Eat. (How easy is that?) How would you get a tomato ready for a snack?

Wash. Slice. Eat. (How easy is that?)

On the back of the Pick a **better** snack[™] & **Act** bingo card for each month, there is information for their parents and grandparents. Encourage students to take the bingo card home and ask their family to pick out a snack idea to try at home.

Extend the Activity



Art, Music & PE Make clay plant replica of a vegetable or fruit on a paper plate. Label the plant parts.

Make a leaf rubbing by placing a piece of white paper on top of a leaf with the vein side up. Make an impression of the leaf by rubbing the side of a crayon on the paper. Discuss which vegetables would be considered "leaves".



Language Arts & Reading

Read <u>Tops and Bottoms</u> by Janet Stevens, Harcourt Brace, 1995. As you read, discuss the importance of roots, stems, and leaves in the story. Have students complete the "Tasty Plants" puzzle.



Math

Measure the circumference of a zucchini and a tomato in centimeters and compare.



Science & Health

Bring in plants for students to study the various parts – roots, stems, leaves, etc.

Place a celery stalk in water with food coloring and observe.

Plant tomato seeds in a container (directions included). Place container in a sunny window or in your school greenhouse to grow.



Social Studies

In Britain, the zucchini is the 10th favorite vegetable. Have students make a top 10 list of their favorite vegetables. Would zucchini be on their list?





VARY YOUR VEGGIES



We Eat Different Parts of the Plant

Draw a line connecting the word with the plant part it names.

Seed

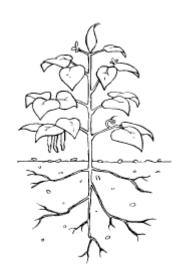
Stem

Root

Leaf

Flower

Fruit



Bean Plant

Foods we eat that are:

Roots

beet
onion
carrot
parsnip
potato
radish
rutabaga
sweet potato
yam
turnip

Leaves

Brussels sprouts parsley cabbage spinach collards turnip greens kale chard lettuce endive mustard greens water cress

Seeds

lima beans pinto beans pumpkin seeds kidney beans black beans sunflower seeds peas dry split peas butter beans corn

Fruits apple

apricot artichoke avocado grapes cucumber banana pumpkin squash bell pepper date grapefruit berries pear pineapple eggplant plum tangerine kiwifruit mango melon orange papaya peach pomegranate strawberry

Tomato

Stems

asparagus bamboo shoots bok choy broccoli celery rhubarb

Flowers

broccoli cauliflower

Source: Team Nutrition Community Nutrition Action Kit



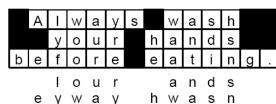


VARY YOUR VEGGIES



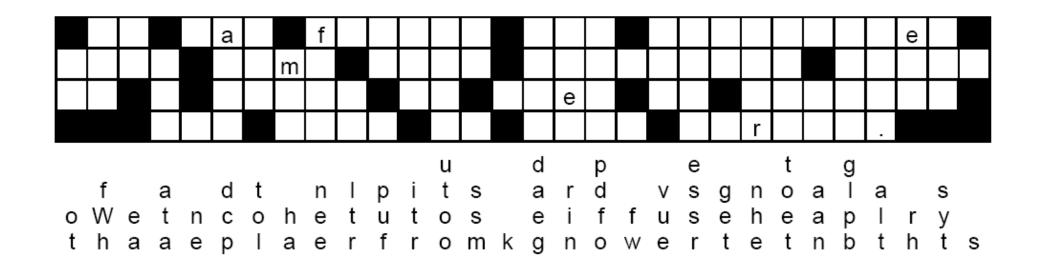
Tasty Plants Puzzle

Unscramble the letters directly under the white boxes to find the hidden message. Each letter is used only once.



Example:









VARY YOUR VEGGIES



Container Tomatoes

You don't need a big yard to have a garden. Many kinds of vegetables can be grown in containers.

Materials needed: tomato seeds (cherry tomatoes are a good first choice), soil, container, sunny window

- 1. Planting containers should be at least three inches deep for roots to grow and have small holes for drainage. You can use 4-inch plastic plant pots or old yogurt or cottage cheese containers with drainage holes punches in the bottom.
- 2. Fill container close to the top with soil and then water.
- 3. Plant individual seeds about 1/4 inch deep and an inch apart. Plant 2-3 seeds per container to ensure one that sprouts.
- 4. Water the seeds. Keep the soil moist but not soggy.
- 5. Place in a sunny window as plants need warmth and light to grow. Protect them from cold drafts at night. Roots will form in 1-2 weeks and sprouts will form in 2-4 weeks.

When seedlings have several sets of leaves, you need to thin them out. Move individual plants to larger, individual pots; water regularly. If you have the space, transplant seedlings to an outdoor garden.

Source: 5 A Day and Tomatoes Kids Activity Sheet, Produce for Better Health Foundation, www.5aday.com

Puzzle Solution

