



VARY YOUR VEGGIES



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

Optional:

“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 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 are good for us.

Web Site Resources

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

Do the Activity:
Plant Parts Song
Kindergarten

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*)

Do you know the song “Head and Shoulders, Knees and Toes?” Stand away from your chairs, and let’s sing the song and do the motions together.

What if your body was a plant? What part of your body would be the roots? (*feet*)

What part of your body would be the stem? (*body*)

What part of your body would be the leaves? (*arms*)

What part of your body would be the flower? (*head*)

Let’s point to those parts starting with the flower. (*Touch head and say “flower.” Hold out arms and say “leaves.” Touch waist and say “stem.” Touch toes and say “roots.”*)

1st grade
Plant/Body Parts Exercises

Stand away from your chairs, and let’s do some exercises with the parts of our body that would represent that of a plant.

What if your body was a plant? What part of your body would be the roots? (*feet*) What exercise can we do that involves our feet? (*walking or marching*)

What part of your body would be the stem? (*body*)

What exercise can we do that involves our body? (*toe touches*)

What part of your body would be the leaves? (*arms*)

What exercise can we do that involves our body? (*arm circles*)

What part of your body would be the flower? (*head*)

What exercise can we do that involves our body? (*head rolls*)

Note: *only let students roll their heads forward*)

Talk It Over:
Kindergarten
1st Grade

So is a tomato a fruit or a vegetable? *You can see why some people call tomatoes “fruit.” They are the “fruit” of the plant. We eat many parts of plants when we eat fruits and vegetables. Do other animals eat plants? (cows eat grass,*

deer eat leaves, bears eat berries)

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 a tomato.) Zucchini. Other vegetables that grow as fruit would be eggplant, pumpkin, other types of squash, and cucumbers.*

Apply:

Pick a **better** snack™ reminds you that it is easy to eat vegetables as snacks. What vegetables do you eat as snacks at home?

How many of you have 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 that 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.



**Tasting
Opportunity**

Extend the Activity



Art, Music & PE

Draw a plant with four basic parts (roots, stems, leave, flowers) and label the parts.



Language Arts & Reading

Read Rehema's Journey by Barbara A. Margolies, Scholastic, 1990. Make a list of fruits and vegetables sold at the market in Tanzania. In this story, African children raised vegetables at school to sell them to buy pencils and other school supplies.



Math

Cut open a tomato and count the seeds. Cut open another tomato and count the seeds. Add the two quantities together.



Science & Health

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



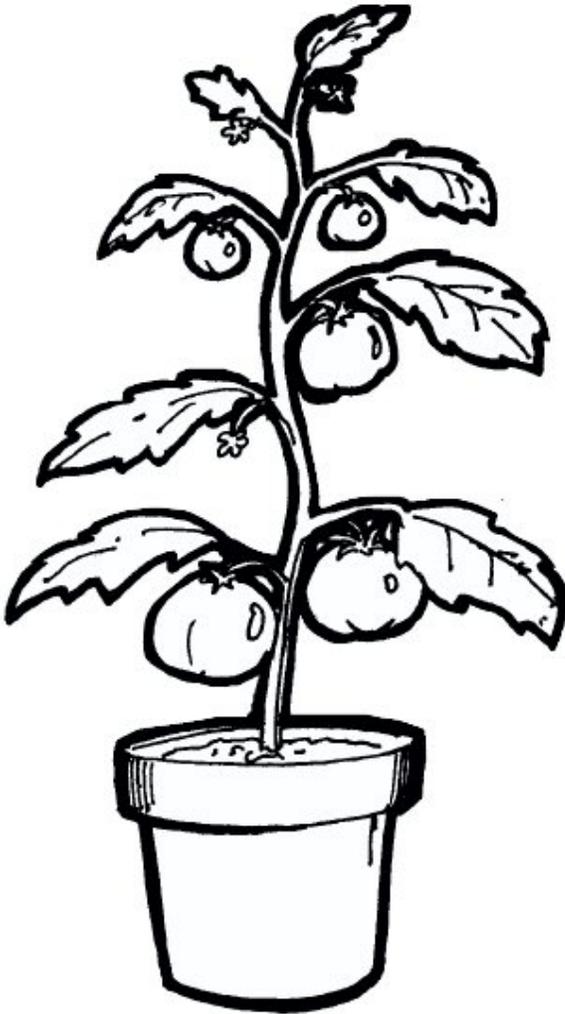
Social Studies

Locate on a map/globe the countries and states in which the vegetables featured this month are grown or originated. (See **Background** section of this lesson.)

VARY YOUR VEGGIES

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 be visible 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