

Lesson 4

The Vegetable Group

AWESOME VEGGIES



Topic
Nutrition

Audience
2nd & 3rd Grades

Suggested Time
45 Minutes

NJ Core Curriculum Standards 2.1 Wellness *By the end of/Grade 2, students will:*

B. Nutrition

Choosing a balanced variety of nutritious foods contributes to wellness.

- 2.1.2.B.- 1. Explain why some foods are healthier to eat than others. 2.1.2.B
- 2. Explain how foods on MyPlate differ in nutritional content and value.

C. Diseases and Health Conditions

Knowledge about diseases and disease prevention promotes health-enhancing behaviors.

- 2.1.2.C.- 2. Summarize strategies to prevent the spread of common diseases and health conditions.

Knowledge Objective(s)

The children will learn foods that belong to the Vegetables Food Group.

The children will learn the importance of eating vegetables for fiber, vitamin A and vitamin C.

The children will learn vegetables come in all different colors.

The children will learn how vegetables grow.

The children will learn the parts of a plant.

Behavioral Objective(s)

The children will choose and eat foods that are good sources of fiber and vitamins A and C.

The children will choose and eat foods from the Vegetables Food Group. The children will learn to wash their hands before handling food.

Life Skill(s)

The children will learn to make healthier food choices by choosing to eat different vegetables each day.

The children will learn about disease prevention.

How This Activity Is Behaviorally Focused

The children choose foods they will eat from the Vegetables Food Group.

The children taste vegetables and talk about their likes and dislikes of vegetables.

Supplies Needed MyPlate for Kids poster Vegetable Kit:

- carrot or beet (root)
- celery or asparagus (stem)
- red or green cabbage (leaves)
- broccoli or cauliflower (flower)
- peas or beans like kidney beans, black beans, etc. (seed) you can use food models or real vegetables

Straw (Optional)

Potato

Vegetables (for tasting; you can use any vegetable or vegetables that you think the class might like)

Disposable gloves

Paper Plates

Hand wipes

"Parts of a Plant" poster and handouts

"Vegetable Riddles" handouts

"What Part of the Plants Are We Eating?" handouts

"Veg Out!" Cross-Word Puzzle handouts (with words - 2nd grade, without words- 3rd grade and leave with teacher)

"MyPlate Train" handouts (Vegetables car)

Teaching Tip(s)

Write new terms on the board before the lesson.

New Terms for Children & Educators

Root: keeps the plant in the earth and absorbs water and nutrients from the soil to help the plant grow.

Leaves: uses sunlight and water to make food for the plant to help the plant grow.

Stem: carries water and food to all the parts of the plant.

Flower: is the part of the plant that has the seeds.

Seed Pod: comes from the flower and is the outside layer that protects the seeds.

Phytochemicals: Things that give veggies their color. Your body can use the fight-o-chemicals in veggies to stay healthy when you eat veggies.

Pre-Lesson Preparation

Hang MyPlate for Kids poster in front of the class.

Have all necessary handouts ready and the Vegetable Kit. The kit will have vegetables from each part of the plant, i.e., a carrot or beet (roots) with all parts intact (stems, leaves). Celery and asparagus are good examples of a stem. Red cabbage is great for leaves, simply cut into half or quarters. Broccoli or cauliflower is a good example of a flower. Pea pods and green beans are good examples of seed pods. Make sure you open the pea pods to show the peas which are seeds of the pod.

Background Information for Educator

A vegetable is the part of a plant that you eat that does not have seeds. Veggies have vitamins, minerals and fiber that keep us healthy. Vitamins have different jobs in our body. Vitamin A, found in yellow and orange vegetables such as carrots, sweet potatoes, and pumpkins, helps us see better and keeps our skin healthy. Vitamin C, found in tomatoes and green peppers, helps to heal our cuts and scrapes. It also helps your body fight things like colds and the flu. It helps keep our gums healthy. Vegetables are high in fiber which helps our body digest food. Fiber keeps food moving through the body and keeps our intestines healthy. A lot of fiber can be found in the skin of vegetables. Some vegetable skin is edible and some is not. Potatoes have skin that is okay to eat, jicama does not.

Vegetables come from different parts of the plant. We eat the root of the plant when we eat carrots, radishes, beets, potatoes, yucca and sweet potatoes. We eat the stem and the flower of the plant when we eat celery and asparagus. We eat the leaves of the plant when we eat lettuce, collard and turnip greens and spinach. One more part of the plant that we eat is the seed. This is what we eat when we eat peas and beans.

Note: point to each word on the board as you mention them.

A fruit is the part of a plant that has the seeds. We will talk about those in the next lesson. Some fruits that we eat we call vegetables because they are not as sweet and we eat them with a meal and not as a dessert. Vegetables that are really fruit are tomatoes, peppers, eggplant, cucumbers, zucchini, avocado and pumpkin. The diagram at the end of the lesson shows how this works. Fruits and vegetables have many of the same vitamins and minerals but many fruits have more sugar.

Vegetables come in many colors. The things that give vegetables their color can help you stay healthy. These things are called phytochemicals or FIGHT-O-Chemicals. Each colored veggie has a different phytochemical with a different health benefit. These phytochemicals can help keep us from getting sick. This is one of the reasons MyPlate tells us to "vary our veggies" with different colors. Remember "MORE MATTERS."

Vegetables can be bought in many forms. They can be bought fresh, frozen or canned. Vegetables can be eaten cooked and uncooked. We usually eat fresh or uncooked vegetables in a salad like, lettuce, spinach, tomatoes, carrots, cucumbers, onions, mushrooms and celery. However, some of those vegetables like tomatoes, carrots and spinach we eat cooked as well. Tomatoes can be made into tomato sauce. Other vegetables that we usually cook are potatoes, zucchini, green beans, asparagus, broccoli, cauliflower, corn and also many others. Vegetables can be cooked in many ways. You can steam them, bake them, grill them, and microwave them. You can also fry them, but when you fry them they are less healthy and are "sometimes" foods. These are foods like French fries, fried zucchini, fried okra, and fried eggplant.

NOTE: All lessons are in sequence. Refer to MyPlate lesson if this is the first lesson.

Briefly review MyPlate For Kids and ask the children to name the different food groups. Ask the children to show you where the food groups can be found on the Plate.

Answers will vary but should include, we need grains for energy, fruits and vegetables for fiber, vitamins and minerals, we need milk for calcium to build strong bones and healthy teeth, meat and beans for protein to help you grow and iron to get oxygen to your body.

Children should also tell you we need to eat from all the food groups to get everything we need to grow and be strong. If the children do not share all these answers, take a moment to remind them before moving on to the rest of the lesson.

Discussion should take no more than 5 minutes.

When you are done with the review, tell the children that you are going to talk about vegetables today.

Activity 1

1. Ask the children: "By a show of hands who likes veggies?" *Give the children a chance to answer.*
2. Ask the children: "What is your favorite veggie?"

Write the children's answers on the board. Be sure you spell the vegetables names the right way. Bring a list to help you.

The list from the NJ SNAP-Ed adult lesson, COLORS OF THE GARDEN can help. You can find this lesson at www.efnep.org in the *Educational Resources*

section under “Small Group Adult Nutrition Education Lessons”. This lesson has a list of vegetables organized by color which might be helpful to use.

3. Ask the children: "When we look at vegetables what are some of their colors?"

Answers will vary but should include all the colors: Red, orange, purple, green, yellow, white, brown, tan and blue.

If the children do not mention all those colors talk about the colors they did not think of and the vegetables that go with them. The vegetables chart from Colors of the Garden will be helpful with this activity.

4. Ask the children: "Why do you think it is important to eat different color veggies each day?"

Answer: Answers may vary but if the children do not mention it, be sure that you tell them that each color veggie has different vitamins, minerals, and phytochemicals that help our bodies stay healthy and work well. Remember vegetables of all colors have fiber. Fiber keeps our bodies healthy and helps keep our food moving through our bodies.

Point to the word phytochemical on the board when you mention it.

5. Ask the children if they know:

- a. Where do vegetables grow Wait for them to answer.
- b. What happens to the vegetables once the vegetables are ripe and all grown? Wait for answers.
- c. What happens to the vegetables once the farmer picks them? Wait for answers.
- d. Where do they get their vegetables?
Wait for answers.

Wait for the children to answer but be sure to share the following information if they do not mention these steps.

Vegetables grow in soil in the ground.

The vegetable plants get harvested or picked from the field, trees or vines. If they grow on a farm, the farmer sells them and they end up at the market in your neighborhood or at a Farmer's Market.

If they grow in your garden you can pick them and enjoy eating them. When we buy them at a market and take them home we eat different parts of the plant.

Activity 2

1. Hang the "Parts of a Plant" poster in front of the classroom

One at a time, ask the children where they think each part is on the plant. As they answer write the word on the board

Root

Stem

Flower

Seed Pod Leaves

Give them time to answer after you write each word on the board.

2. Ask the children to write the name of each part in the space on the handout where they think this part is on the plant.

Then go over each plant part name and tell them what that part of the plant does.

Root: The roots hold the plant in the ground and help the plant get water and food from the soil. Roots that we eat are carrots, radishes, beets, potatoes, yucca and sweet potato.

Stem: The stem helps the plant get the water and food from the root to the rest of the plant. Stems we eat are celery and asparagus.

Flower: The flower is the part of a plant that turns into a blossom. Flowers we eat are broccoli and cauliflower.

Seed Pod: The seed pod is left when the flower is gone. Seed pods we eat are green beans, beans and peas.

Leaves: Tell the children that leaves help the plant to breathe. Leaves have pores like pores in our skin. They take in water and sunlight which makes food for the plant. Leaves we eat are lettuce, collard greens, kale, spinach and cabbage.

Tell them we talked about fruits before. We will talk about them more in another lesson. A fruit is a part of the plant that has seeds in it. Tomatoes, peppers, cucumbers, eggplant, and pumpkins all have seeds and are really fruits. **We call them vegetables because they are not as sweet as apples, peaches, grapes and other fruit and because we eat them with meals instead of as a dessert.**

Note to the Educator: The diagram at the end of the lesson might help you explain vegetables that are really fruit.

3. Ask the children to tell you again, why they are called plant fruits?"

Answer: They contain seeds. Even though they are fruit, we eat them as vegetables.

Leave the 'Parts of the Plant' Handout and answer sheet with the teacher for the teacher to complete with the class once you have left.

Activity 3

1. Show the children each vegetable in the vegetable kit you have brought (you can use food models or real vegetables). Ask them if they can name the vegetable and what part of the plant it comes from. The kit should contain those vegetables described in # 7.
2. Ask the children: Are the veggies they eat always cooked?
3. Ask the children: How do you eat veggies at home and at school?

Answers may vary but be sure to include information from the background material about different ways to eat and cook veggies.

Activity 4 (optional)

Here are some interesting facts about vegetables that you might want to share with the children. If you would like you may use this at the beginning of the lesson rather than here.

Ask the children: "Have you ever seen a potato looking at you?" Wait for the children to respond.

Answer: Show the children a potato and explain to them that the spots on a potato are called "eyes" which are really buds from which new plants can grow. This happens when the "eyes" sprout and grow into new plants.

Ask the children: "Do you know how roots like carrots get so fat?"

Answer: The plant ends up taking in more food than it can use, and so it stores the extra food in its roots. The roots get bigger and bigger until we pull them up and eat them.

1. Pass out the handouts of "Vegetable Riddles" to the children. Read each one out loud and ask the children to give you the answers. If you are working with third graders and you think they can work alone before you go over the answers, allow them 5 minutes to work on their own before you start reading the riddles.

2. Tell the children: "We are going to taste some delicious uncooked veggies today".

Note to educator: You can use any vegetable or vegetables that you think the class might like to taste like carrots, celery, or cucumber.

3. Ask the children: "What is the first thing we do before we touch any food?"

Answer: Wash our hands.

NOTE: Review the 5 steps of the hand washing procedure with the children if they did not participate in the "Clean Hands" lesson.

1. Turn on faucet and use warm water
2. Put soap on hands
3. Wash for at least 20 seconds
4. Rinse
5. Dry and use paper towel to turn off faucet.

Hand out wipes to the children and have them wash for 20 seconds while singing one Mississippi, two Mississippi, etc. up to 20.

Pass out the vegetable you have chosen to have the children taste.

4. Ask the children: "Do you like these vegetables?"
5. Ask the children: "Would you eat raw or cooked (chosen vegetable) at home?" *Wait for children to answer.*

If you have extra time, you can use one of these as a classroom activity. If not, leave behind. 'What Part Of The Plants Are We Eating?' and 'Veg Out' Crossword puzzle and the 'MyPlate Train' (Vegetables car) with the teacher.

NOTE: Lessons are written in sequence. The engine part of MyPlate train is left

with the teacher in the MyPlate for Kids lesson. At the end of each of the remaining lessons, the children receive the other food group cars to complete the train.

Conclusion

Question: Ask the children: "What have you learned about the Vegetables Group today?" *Wait for the children to respond.*

Answers will vary but should include:

- *Veggies come in many different colors. Let the children name some colors.*
- *Different veggies have different vitamins, minerals and phytochemicals.*
- *Most veggies have fiber to help you keep your food moving through your body.*
- *Veggies grow and then get picked by the farmer and sent to your store or market.*
- *Some people grow veggies in gardens in their house or backyard.*
- *Some children may name parts of the plant and what they do.*
- *Veggies can be found in the store raw and uncooked, frozen and uncooked or in cans.*
- *Veggies can be eaten uncooked or cooked.*
- *Veggies are good for you and taste good too.*

If you have time, review the new terms again with the children:

Root: keeps the plant to the earth and absorbs water and nutrients from the soil.

Leaves: make food for the plant by using sunlight and water.

Stem: carries water and food to all the parts of the plant.

Flower: is the blossoming part of the plant.

Seed Pod: comes from the flower and protects the seeds.

Phytochemicals: Things that give veggies their color and can help you stay healthy when you eat veggies.

Question: Ask the children: "Which new vegetables will you try to eat this coming week?"

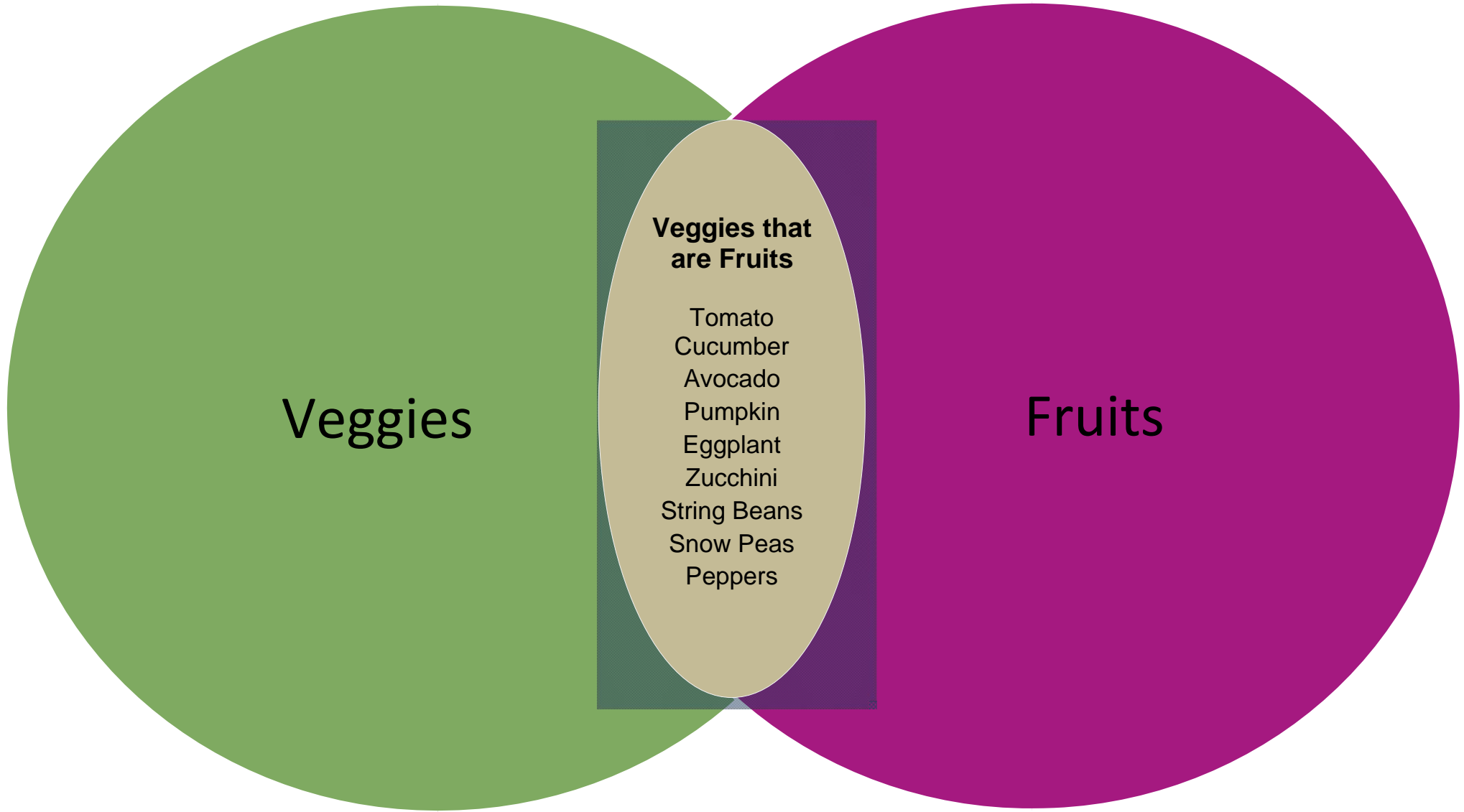
Wait for the children to respond.

References:

1. "What Parts of a Plant Do We Eat" Part One. The Part of the Plant We Eat. Teacher Preparation Notes © 2009 Dr. Jennifer Doherty and Dr. Lori Spindler, Department of Biology, University of Pennsylvania. Viewed April 28, 2014 http://serendip.brynmawr.edu/sci_edu/waldronipdf/PartsOfPlantTeachPrep.pdf
2. "What Are Phytochemicals" Fruit and Veggies More Matters. Viewed April 28, 2014. <http://www.fruitsandveggiesmorematters.org/what-are-phytochemicals>
3. "Plant Parts: What do Different Plant Parts Do?" Missouri Botanical Gardens ©2009 Viewed April 28, 2014. <http://www.mbgnet.net/bioplants/parts.html>

4. Vegetable Riddles (date unavailable). FS-36045 What is a Vegetable? Frank Schaffer Publications, Inc. 2014. 2014.
<http://www.mbgnet.net/bioplants/parts.html>
5. Veg-out! Adapted from <http://www.puzzlemaker.com/>

Adapted from *SMART FOODS ROCK* Curriculum created by NJ SNAP-Ed Union County staff.



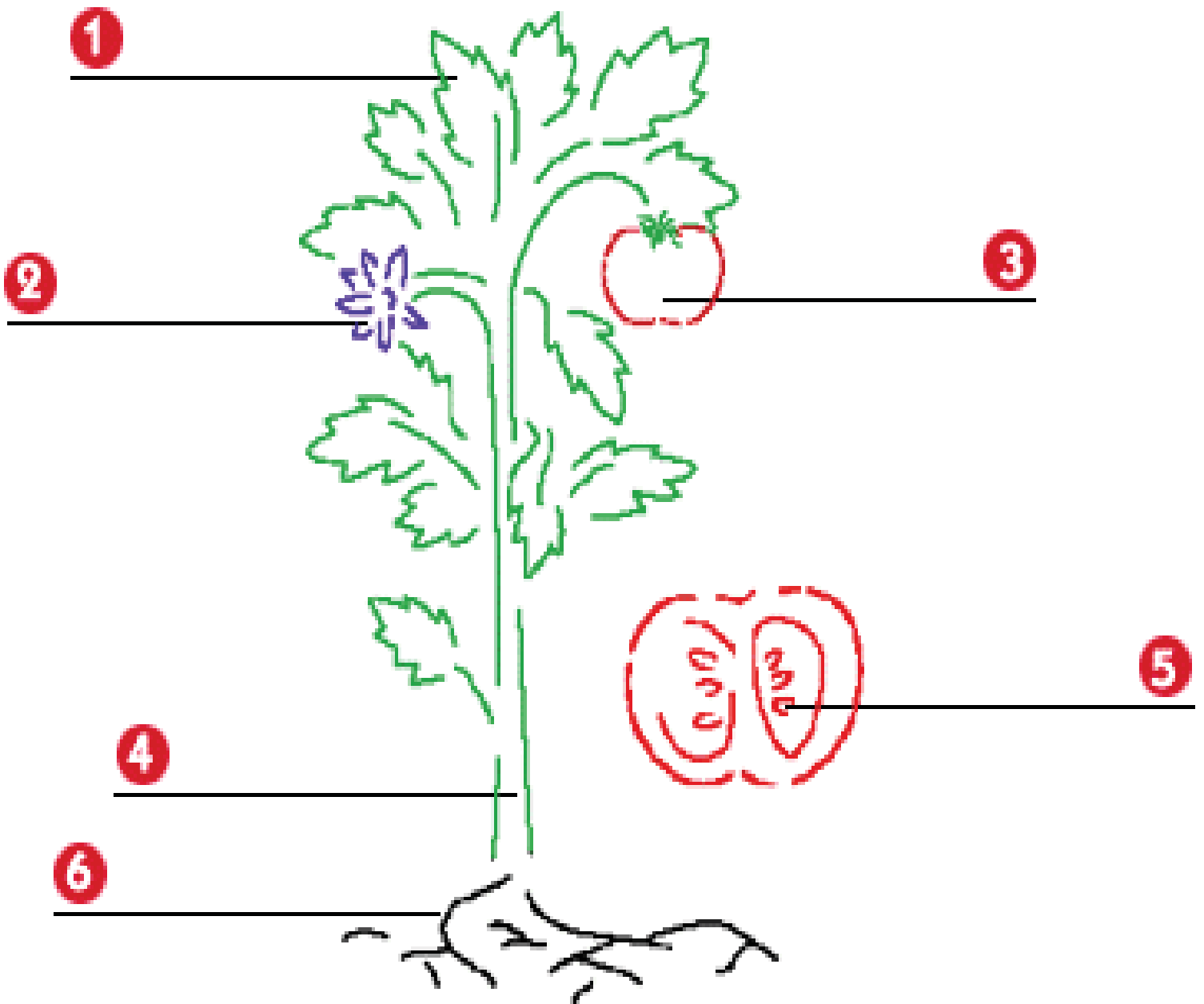
Veggies

Fruits

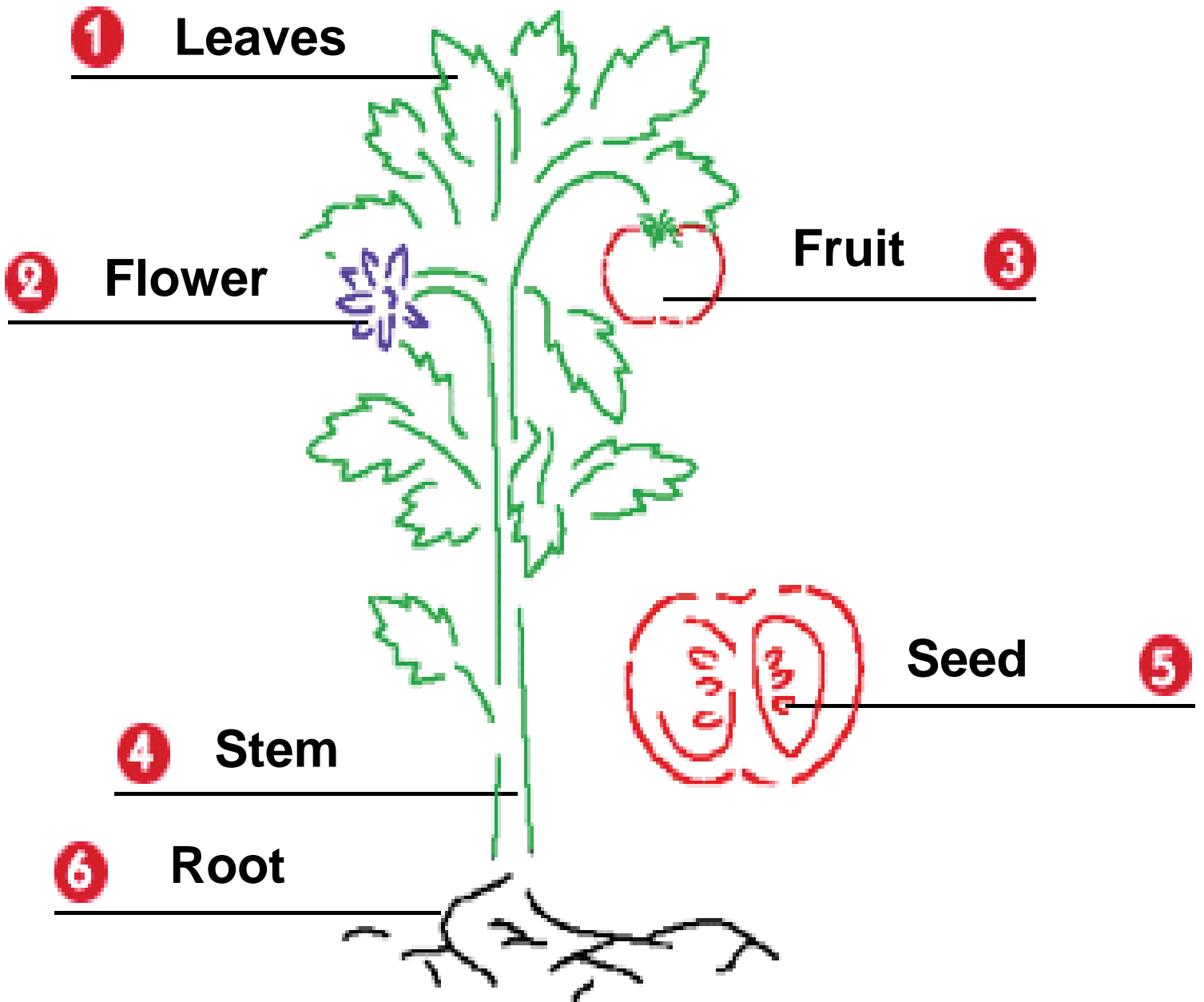
Veggies that are Fruits

- Tomato
- Cucumber
- Avocado
- Pumpkin
- Eggplant
- Zucchini
- String Beans
- Snow Peas
- Peppers

Parts of the Plant



Parts of the Plant

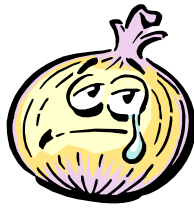


VEGETABLE RIDDLES

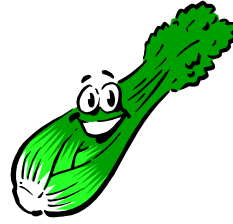
Read each riddle. Write its answer.



LETTUCE



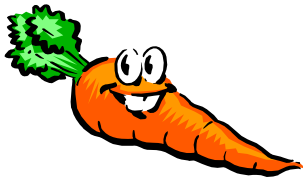
ONION



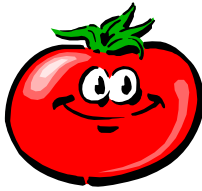
CELERY



BEET



CARROT



TOMATO



POTATO



ASPARAGUS

1. I am a leaf. I am green. Put me in a salad

5. I am a root. I am red. I rhyme with feet.

2. I am orange. I am a root. Rabbits like to eat me.

6. I have a thick outer layer. I make people cry when I am peeled or cut.

3. I am a crunchy stem. Try me with peanut or almond butter or low fat

7. I am red. I grow on a vine. I am truly a fruit.

4. I have many eyes. I can be baked, boiled, fried or mashed.

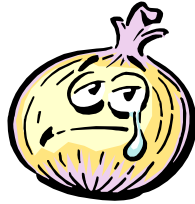
8. I am green. I am a tall thin stem I have tiny scales at my tip.

ANSWER SHEET

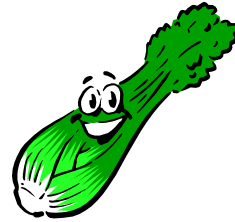
VEGETABLE RIDDLES



LETTUCE



ONION



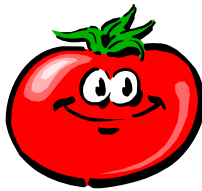
CELERY



BEET



CARROT



TOMATO



POTATO



ASPARAGUS

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7. I am red. I grow on a vine. I am truly a fruit.

8. I am green. I am a tall thin stem I have tiny scales at my tip.

Name _____

WHAT PART OF THE PLANT ARE WE EATING?



Match each Vegetable to the Part of the Plant it comes from. Put number of the plant part next to the vegetable. You can use the parts of the plant more than once.

Vegetable

Bell Peppers _____

Beets _____

Artichokes _____

Carrot _____

Spinach _____

Celery _____

Broccoli _____

Tomato _____

Green beans _____

Asparagus _____

Lettuce _____

Peas _____

Part of the Plant

1. Fruit

2. Root

3. Flower

4. Leaf

5. Stem

6. Seed pod

7. Seed of the pod

Answer Sheet

WHAT PART OF THE PLANT ARE WE EATING?



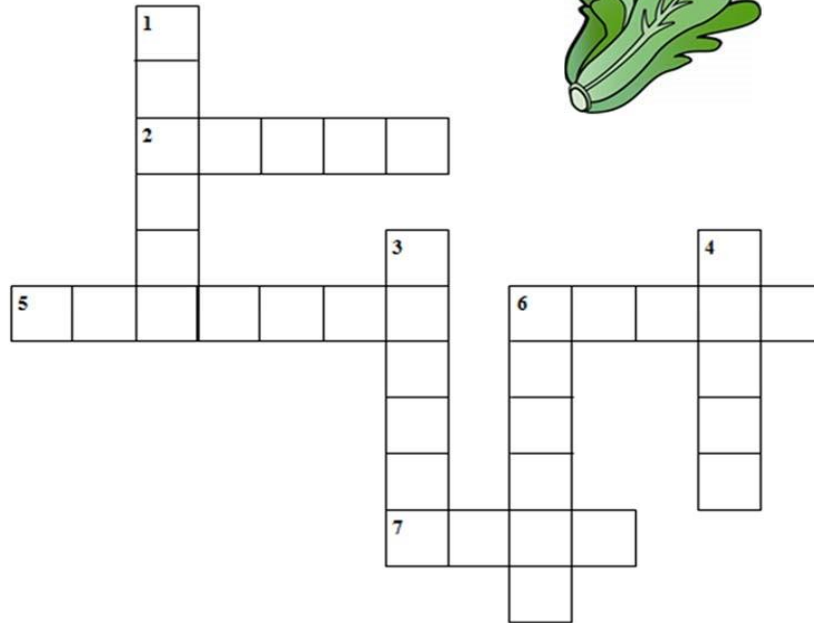
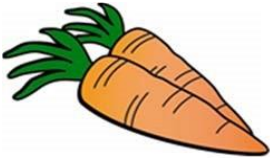
Match each Vegetable to the Part of the Plant it comes from by entering the correct number in the space provided. You can use the part of the plant #'s more than once.

<u>Vegetable</u>		<u>Part of the Plant</u>
Bell Peppers _____	1	1. Fruit
Beets _____	2	2. Root
Artichokes _____	3	3. Flower
Carrot _____	2	4. Leaf
Spinach _____	4	5. Stem
Celery _____	5	6. Seed pod
Broccoli _____	3	7. Seed of the pod
Tomato _____	1	
Green beans _____	6	
Asparagus _____	5	
Lettuce _____	4	
Peas _____	7	

6/24/13

Name _____

VEG OUT!



ACROSS

2. Anchor the plant to the earth
5. A common leaf vegetable
6. Helps our body with digestion
7. Transports water and nutrients to the plant

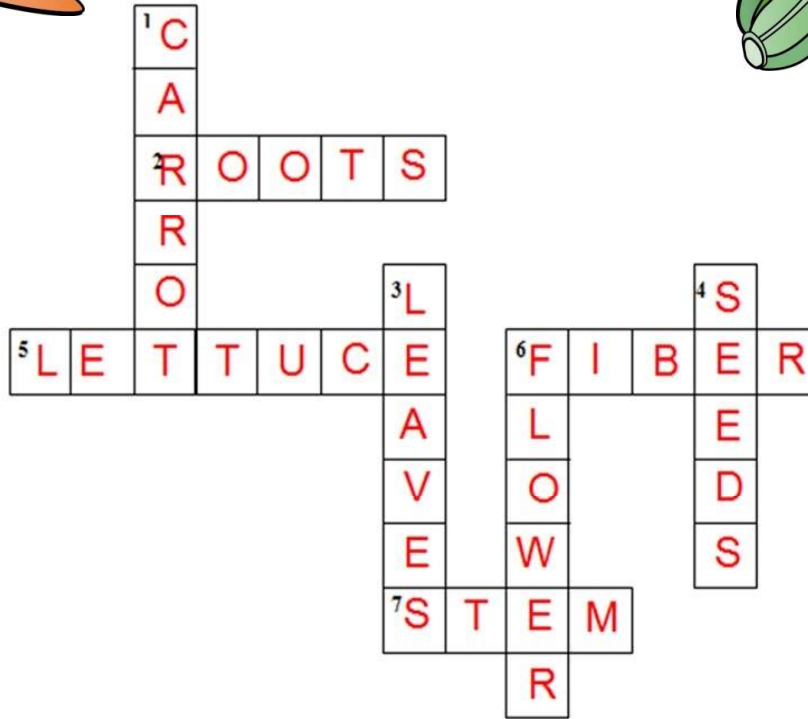
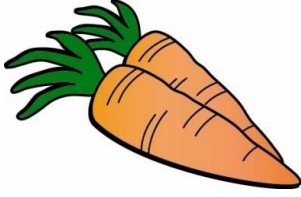
DOWN

1. A common root vegetable
3. Take in sunlight and make food for the plant
4. Planted in soil to grow plants
6. Blossoming part of the plant

<i>Carrot</i>	<i>Fiber</i>	<i>Stem</i>
	<i>Roots</i>	<i>Flower</i>
<i>Leaves</i>	<i>Lettuce</i>	<i>Seeds</i>

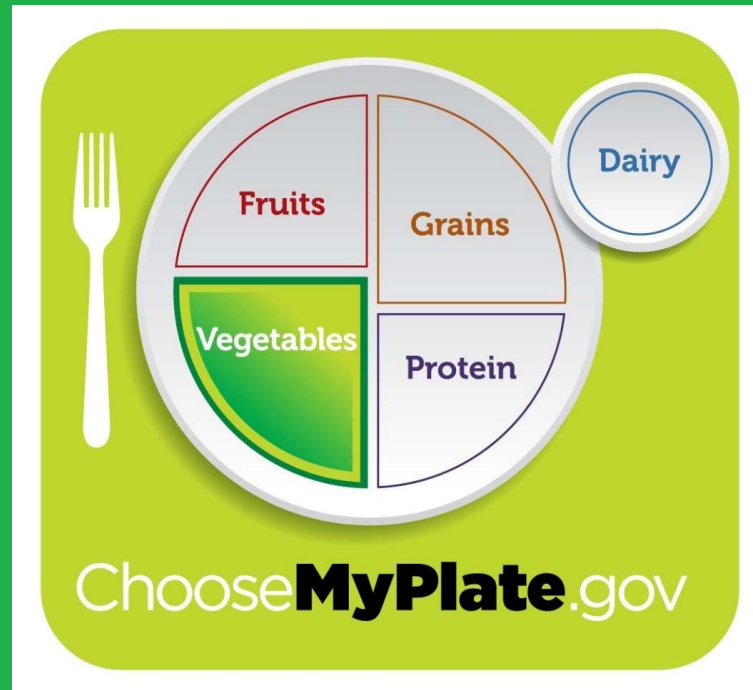
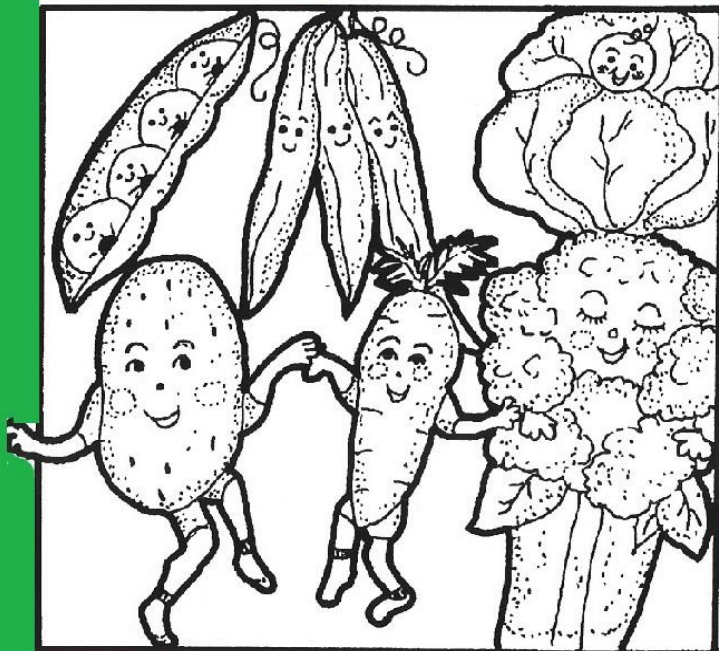
Answer Sheet

VEG OUT!



<i>Carrot</i>	<i>Fiber</i>	<i>Stem</i>
<i>Roots</i>	<i>Flower</i>	
<i>Leaves</i>	<i>Lettuce</i>	<i>Seeds</i>

The Vegetable Group



6/24/13