

# Plant Parts We Eat

## Grades PK-2

ELA, Science, Math, Visual Arts



### Objectives

Students will read about vegetables and answer comprehension questions, write a sentence about vegetables, read *Tops and Bottoms*, by Janet Stevens, and create their own Tops and Bottoms gardens. Students will sort and categorize vegetables by parts (leaves, seeds, flowers, fruit, stems or roots). Students will plant a classroom garden and harvest vegetables. Students will create a garden journal and decorate it with vegetable prints. Students will measure, sort and weigh vegetables and classify them by geometric shape.

### Vocabulary

**flower**—the part of a plant which is often brightly colored, usually lasts a short time, and from which the seed or fruit develops

**fruit**—usually sweet food (such as a blueberry, orange, or apple) which grows on a tree or bush

**leaf**—one of the flat and typically green parts of a plant which grow from a stem or twig

**plant**—a living thing which grows in the ground, usually has leaves or flowers, and needs sun and water to survive

**root**—the part of a plant which grows underground, gets water from the ground, and holds the plant in place

**seed**—a small object produced by a plant from which a new plant can grow

**stem**—the main long and thin part of a plant which rises above the soil and supports the leaves and flowers

### Background

Most vegetables grow well in Oklahoma. Some, like lettuce, spinach, radishes, broccoli, cauliflower and cabbage must be planted early in the spring or in the fall because the **plants** don't like the hot Oklahoma summers. If you have a sunny window in your classroom, you can grow some of these fast growing cool season vegetables inside. Other vegetables, like corn, beans, and peas need warm soil and weather to thrive. Okra needs long hot days and lots of water to produce. Most vegetables are planted every year, but some, like asparagus and rhubarb are planted once and emerge from the soil each spring.

Vegetables are a great source of vitamins A and C, along with fiber. Most are low in calories, unless we eat them with lots of butter or fry them. Students in this age group need about 1 ½ cups of vegetables per day. Older students and adults need from 2-3 cups of vegetables per day, depending on how many calories they need.

Although plants look very different, most have some parts which grow above the ground and other parts which grow below the ground. 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. Cauliflower and broccoli plants produce **flowers** we like to eat. When we eat radish or carrot, we are eating **roots**. Potatoes grow underground, but the part we eat is not a root. It is an underground stem called a tuber. Celery looks like a stem, but it is a petiole, a part of the leaf.

# Plant Parts We Eat (continued)

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## Background, continued

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 when they get bigger. We eat the root of the onion plant but can also eat the stems for a milder flavor before the stems dry and the onion matures.

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 the fruit of the tomato plant has vitamins which are very good for us. They are also delicious—sliced or chopped fresh into salads, cooked into spaghetti sauce or processed into salsa.

## Additional Reading

Child, Lauren, *I Will Not Ever Never Eat a Tomato*, Candlewick, 2007.

Gibbons, Gail, *Vegetables We Eat*, Holiday House, 2008.

Messner, Kate, *Up in the Garden, Down in the Dirt*, Chronicle Books, LLC, 2017

Moser, Lisa, and Ben Mantle, *Perfect Soup*, Random House, 2010.

Schuh, Mari, *Vegetables on MyPlate*, Capstone Press, 2012

Stevens, Janet, *Tops & Bottoms*, Harcourt Brace, 1995.

Thurman, Kathryn K., and Lindsay Ward, *A Garden for Pig*, Kane Miller, 2010.

## Websites

<https://www.realfood4kids.com/news/2017/5/4/what-are-6-parts-of-the-plant-that-we-eat-stems-flowers-what-else>

[https://www.chicagobotanic.org/blog/how\\_to/fruit\\_and\\_veggie\\_prints](https://www.chicagobotanic.org/blog/how_to/fruit_and_veggie_prints)

*Who Grew My Soup* read aloud: <https://www.youtube.com/watch?v=WEK1mqeCjio>

# Plant Parts We Eat

## Activity 1

## Grades PK-2 Teacher Resources and Standards

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### Activity 1: Describing Vegetables (ELA)

**1-8 50 minute class periods**

Students will handle a variety of vegetables and sort them into categories by type (leaves, seeds, flowers, fruit, stems or roots) and write sentences using words that describe the vegetables. They will match vegetable names with pictures of the vegetables.

### Oklahoma Academic Standards

#### Activity 1: Describing Vegetables (ELA)

PK.4.R.3	Students will name and sort familiar objects and pictures into categories based on common attributes with guidance and support.
K. 4.R.3	
1. 4.R.4	Students will name and sort words into categories based on common attributes.
K.5.W.2	Students will begin to compose simple sentences that begin with a capital letter and end with a period or question mark.
1.5.W.2	Students will compose grammatically correct simple and compound sentences and questions (interrogatives) with appropriate end marks.
2.5.W.3	Students will compose grammatically correct simple and compound declarative, interrogative, imperative, and exclamatory sentences with appropriate end marks.

### Materials:

- Activity 1 Worksheet 1 “Which Parts Do You Eat?”
- Activity 1 Worksheet 2 “Leaves”
- Activity 1 Worksheet 3 “Seeds”
- Activity 1 Worksheet 4 “Flowers”
- Activity 1 Worksheet 5 “Fruit”
- Activity 1 Worksheet 6 “Stems”
- Activity 1 Worksheet 7 “Roots”
- Activity 1 Worksheet 8 “Writing about Vegetables”
- Assorted examples of fresh vegetables
  - stems: asparagus, celery, rhubarb, potatoes
  - flowers: cauliflower, broccoli, artichoke
  - root: radish, beet, carrot, parsnip
  - seeds: peas or beans in pod, corn on the cob
  - fruit: eggplant, squash, tomatoes, cucumber, pumpkin
  - leaves: lettuce, cabbage, spinach, mustard greens, beet greens
- Crayons or markers

# Plant Parts We Eat

## Activity 1- Continued

## Grades PK-2 Teacher Resources and Standards

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### Procedures

1. Read and discuss background and vocabulary.
2. Bring assorted examples of fresh vegetables that are roots, leaves, stems, seeds and flowers
  - a. stems: asparagus, celery, rhubarb, potatoes
  - b. flowers: cauliflower, broccoli, artichoke
  - c. root: radish, beet, carrot, parsnip
  - d. seeds: peas or beans in pod, corn on the cob
  - e. fruit: eggplant, squash, tomatoes, cucumber, pumpkin
  - f. leaves: lettuce, cabbage, spinach, mustard greens, beet greens
3. Show the vegetables one at a time and ask students to guess what they are.  
—Ask if anyone has ever eaten any of the vegetables. Which ones are their favorites?  
—Students will sort the vegetables in piles according to the part of the vegetable we eat—the root, the seed, the stem, the flower, the fruit or the leaves.
4. Provide copies of Worksheet 1 “**Which Parts Do You Eat?**”  
—Students will read the passage or follow along as you read.  
—Students will answer the comprehension questions included with the reading.
5. Activity 1 Worksheet 2 “**Leaves**,” Worksheet 3 “**Seeds**,” Worksheet 4 “**Flowers**,” Worksheet 5 “**Fruit**,” Worksheet 6 “**Stems**,” and Worksheet 7 “**Roots**” are coloring sheets. Each sheet has pictures of vegetables which come from the specific part of the plant listed at the top of the sheet. Have students color the vegetables on the sheet and then match the correct name to each vegetable.
6. Using Worksheet 8 “**Writing about Vegetables**,” give each student or group of students a specific vegetable to write about. Have students fill in the blanks and then write a sentence using the words in the blanks. Students will then draw a picture of the vegetable.

# Plant Parts We Eat

## Activity 1 Worksheet 1: Which Parts Do You Eat?



Name: \_\_\_\_\_ Date: \_\_\_\_\_

What part of a plant do you eat? Do you eat the seed? Do you eat the fruit? When you eat asparagus, you eat the stem. The stem holds the plant up. When you eat lettuce, you eat the leaves. You eat the fruit of tomato plants. Fruit is often sweet, but not always. Fruit has seeds in it. When you eat corn or peas you eat seeds. When you eat carrots, you are eating roots. Roots grow in the soil. Broccoli makes flowers for you to eat. You eat more than one part of some plants. Most of us eat the root of the beet plant. The leaves of the beet plant are good to eat, too.



**1. Which part of plants do we eat?** (Circle all the correct answers.)

- a. stem      b. leaves      c. fruit      d. seeds      e. flowers

**2. Which part of a plant holds a plant up?** (Circle one.)

- a. stem      b. leaves      c. fruit      d. seeds      e. flowers

**3. Which part of a plant is often sweet?** (Circle one.)

- a. stem      b. leaves      c. fruit      d. seeds      e. flowers

**4. We eat more than one part of which plant?** (Circle one.)

- a. lettuce      b. tomatoes      c. beets      d. carrot      e. corn

# Plant Parts We Eat

## Activity 1 Worksheet 1: Which Parts Do You Eat?

### ANSWER KEY



Name: \_\_\_\_\_ Date: \_\_\_\_\_

What part of a plant do you eat? Do you eat the seed? Do you eat the fruit? When you eat asparagus, you eat the stem. The stem holds the plant up. When you eat lettuce, you eat the leaves. You eat the fruit of tomato plants. Fruit is often sweet, but not always. Fruit has seeds in it. When you eat corn or peas you eat seeds. When you eat carrots, you are eating roots. Roots grow in the soil. Broccoli makes flowers for you to eat. You eat more than one part of some plants. Most of us eat the root of the beet plant. The leaves of the beet plant are good to eat, too.



1. Which part of plants do we eat? (Circle all the correct answers.)

a. stem

b. leaves

c. fruit

d. seeds

e. flowers

2. Which part of a plant holds a plant up? (Circle one.)

a. stem

b. leaves

c. fruit

d. seeds

e. flowers

3. Which part of a plant is often sweet? (Circle one.)

a. stem

b. leaves

c. fruit

d. seeds

e. flowers

4. We eat more than one part of which plant? (Circle one.)

a. lettuce

b. tomatoes

c. beets

d. carrot

e. corn



# Plant Parts We Eat

## Activity 1 Worksheet 2: Leaves



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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Color each food and draw a line from each vegetable to the matching name.



**Cabbage**

**Lettuce**

**Spinach**



# Plant Parts We Eat

## Activity 1 Worksheet 3: Seeds



Name: \_\_\_\_\_ Date: \_\_\_\_\_

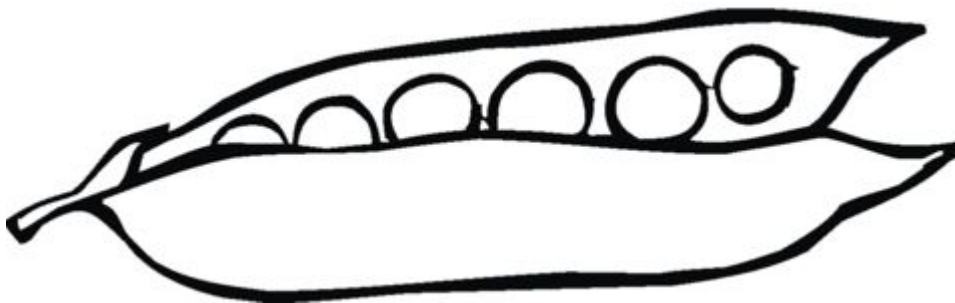
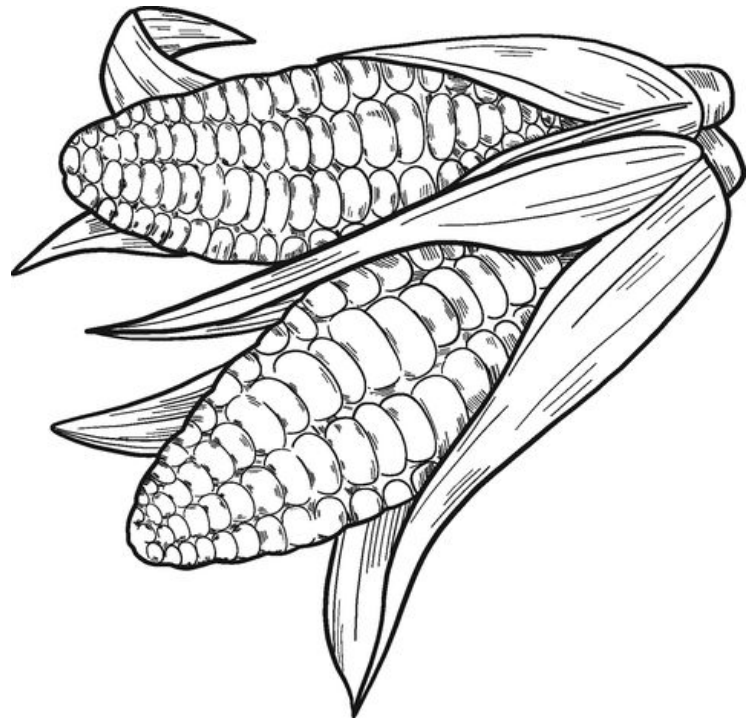
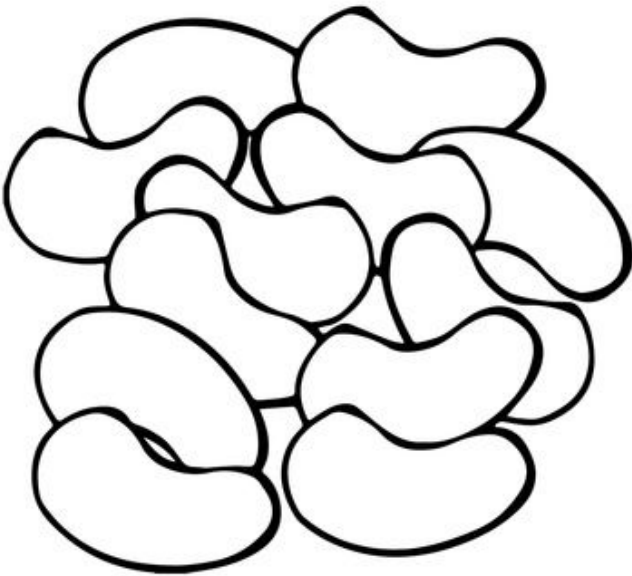
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Color each food and draw a line from each vegetable to the matching name.

**Beans**

**Corn**

**Peas**





# Plant Parts We Eat

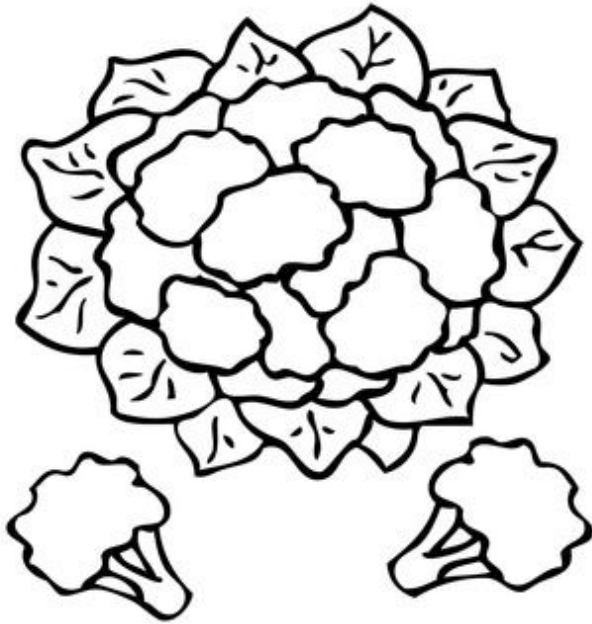
## Activity 1 Worksheet 4: Flowers



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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Color each food and draw a line from each vegetable to the matching name.



**Artichoke**

**Broccoli**

**Cauliflower**



# Plant Parts We Eat

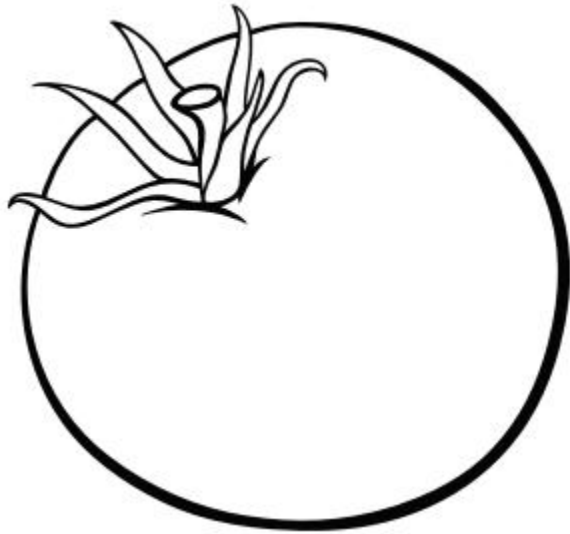
## Activity 1 Worksheet 5: Fruits



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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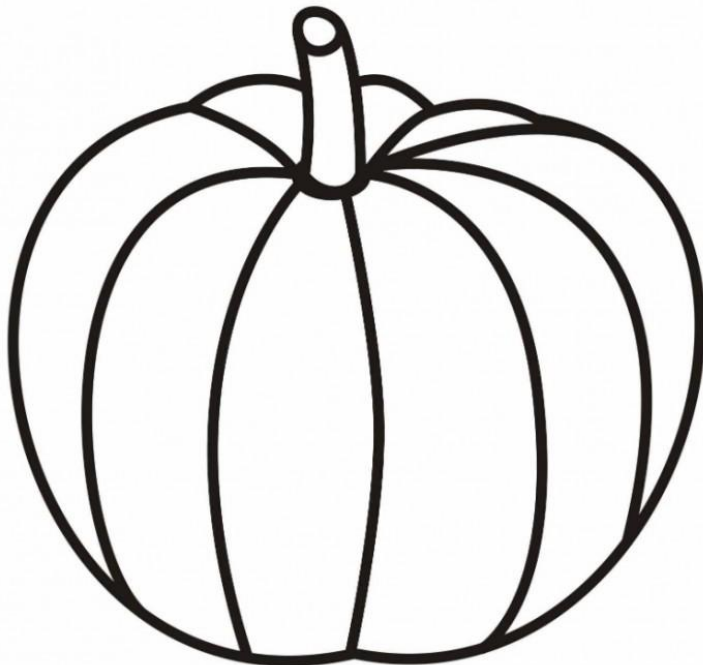
Color each food and draw a line from each vegetable to the matching name.



**Eggplant**

**Pumpkin**

**Tomato**



# Plant Parts We Eat

## Activity 1 Worksheet 6: Stems



Name: \_\_\_\_\_ Date: \_\_\_\_\_

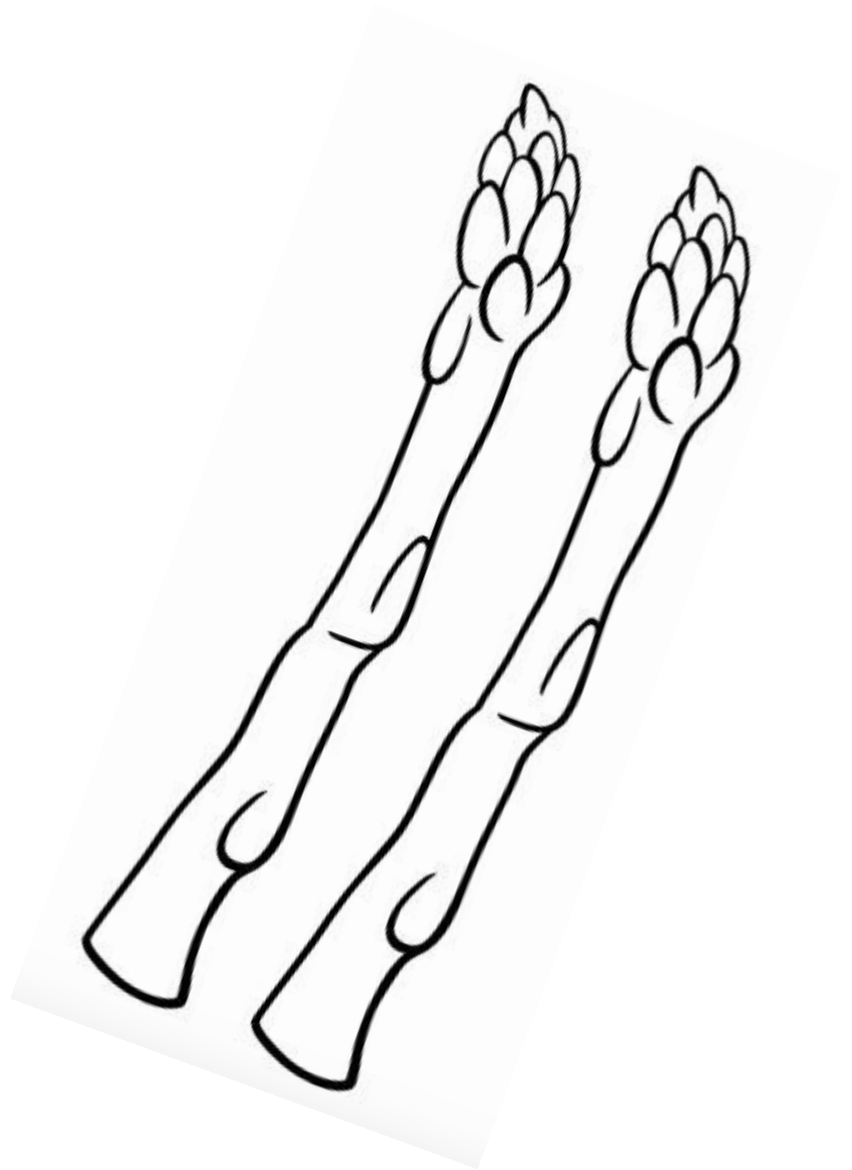
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Color each food and draw a line from each vegetable to the matching name.



**Asparagus**

**Potato**



# Plant Parts We Eat

## Activity 1 Worksheet 7: Roots



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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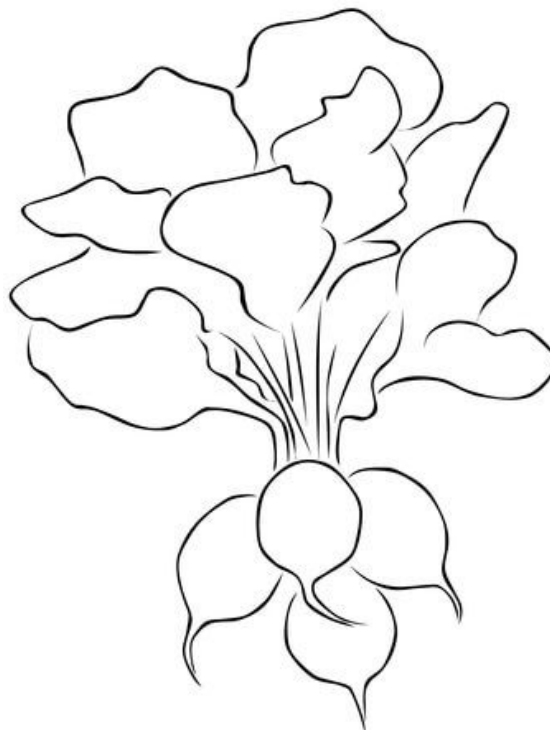
**Color each food and draw a line from each vegetable to the matching name.**



**Carrot**

**Onion**

**Radish**



# Plant Parts We Eat

## Activity 1 Worksheet 8: Writing about Vegetables



Name: \_\_\_\_\_ Date: \_\_\_\_\_

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**Fill in the blanks below. Use the words to write a sentence about your vegetable.**

What is the name of your vegetable? \_\_\_\_\_

What color is the vegetable? \_\_\_\_\_

What part of the plant is the vegetable? \_\_\_\_\_  
(seed, stem, fruit, leaves, root or flower)

Does it grow above or below the ground? \_\_\_\_\_

Sentence Examples: Orange carrots are roots. They grow below the ground.

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Draw a picture of the vegetable growing in the soil.



# Plant Parts We Eat

## Activity 2

## Grades PK-2 Teacher Resources and Standards

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### Activity 2: Plant Parts We Eat, (Science) 1 -2 50 minute class periods

Students will review background and instructions on worksheet to understand and differentiate different parts of plants and which parts of certain plants we eat.

#### Oklahoma Academic Standards

#### Activity 2: Plant Parts We Eat (Science)

PK.S.2	Make observations of the physical and natural world.
K.LS1.1	Use observations to describe patterns of what plants and animals (including humans) need to survive.
1.LS3.1	Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
2.PS1.1	Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
2.LS2.1	Plan and conduct an investigation to determine if plants need sunlight and water to grow.
2.LS4.1	Make observations of plants and animals to compare the diversity of life in different habitats.

#### Materials:

- assorted examples of fresh vegetables that are roots, leaves, stems, seeds and flowers
  - stems: asparagus, celery, rhubarb, potatoes
  - flowers: cauliflower, broccoli, artichoke
  - root: radish, beet, carrot, parsnip
  - seeds: peas or beans in pod, corn on the cob
  - fruit: eggplant, squash, tomatoes, cucumber, pumpkin
  - leaves: lettuce, cabbage, spinach, mustard greens, beet greens
- Activity 2 Reading Page 1 “**Plant Parts We Eat**”
- Activity 2 Worksheet 1 “**Plant Parts We Eat**”
- Activity 2 Worksheet 2 “**Tops and Bottoms Fold-up Garden**”
- Activity 2 Worksheet 3 “**Tops or Bottoms Comparison**”
- Crayons, markers, etc.
- White paper plates, Paper punch, Wire brads
- Scissors and glue

# Plant Parts We Eat

## Activity 2- Continued

## Grades PK - 2 Teacher Resources and Standards

### Procedures:

1. Bring an assortment of root, stem, fruit, flower, leaves and seed vegetables to class.  
—Show the vegetables one by one and ask students to identify them.  
—Ask if anyone has ever eaten any of the vegetables. Which ones are their favorites?  
—Students will sort the vegetables in piles according to the part of the vegetable we eat—the root, the seed, the stem, the flower, the fruit or the leaves.
2. Hand out Reading Page 1 “**Plant Parts We Eat.**” Discuss each of the plant parts represented.
3. Hand out Worksheet 1 “**Plant Parts We Eat**” and have students draw lines from the plants pictured to the correct words, using Worksheet 1 as a reference.
4. Take a trip to a farmer’s market or the produce section of a grocery store.  
—Students will identify vegetables they see and designate which part of the plant is eaten.
5. Write the cafeteria menu for several days on the chalkboard .  
—Students will look at the vegetable of the day and determine the plant part it comes from  
—Examples include, corn - seed; green beans - seed; potatoes - stems (remember that even though potatoes grow underground, the potatoes are a special kind of stem called “tubers”); spinach - leaves; carrots - roots; broccoli - flowers, etc.
6. As a class, read the book *Tops and Bottoms*, by Janet Stevens.  
—Discuss the varieties of vegetables grown in the garden.  
—Provide drawing paper, crayons, markers, etc.  
—Follow the directions included in Worksheet 2 “**Tops and Bottoms Fold-up Garden.**”  
—Complete Worksheet 3 “**Tops and Bottoms Comparison.**”
7. Alternative: Paper Plate Garden  
—Students will fold a paper plate in half and draw a line down the center.  
—Students will color one half the plate blue and the other half brown.  
—Students will draw or glue pictures of vegetables on the colored plate. The blue space will serve as the sky, so anything that grows on top should be placed on the line growing into the blue, while anything that grows from the bottom should be placed on the line growing into the brown side of the plate.  
—Students will fold another plate in half and cut along the fold.  
Students will write “Tops” on one half and “Bottoms” on the other half.  
—On the left side of the first plate, students will punch a hole about 3 cm in on the line.  
—Students will place the two halves on top of each other and punch a hole 3 cm in on the left side. The hole should line up with the first plate.  
—Line all the holes up and use a brad to secure the plates. Now the bottom plate should have a cover. When the “Tops” half is pulled up it should reveal the crops that grow on top. When the “Bottoms” half is pulled up it should reveal the crops that grow on bottom.



You eat our roots.



Beet

Carrot

Radish

You eat my stems.



Asparagus

Celery

You eat our leaves.



Cabbage

Spinach

Lettuce

You eat our fruit.



Peppers

Eggplant

Tomato

You eat our seeds.



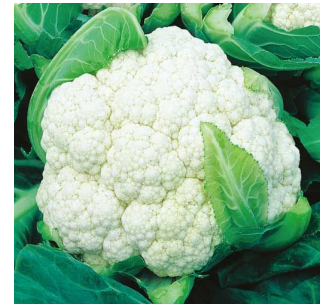
Corn

Peas

You eat my flowers.



Broccoli



Cauliflower

# Plant Parts We Eat

## Activity 2 Worksheet 1: Plant Parts we Eat



Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Draw a line from each vegetable to the name of the part we eat.**



Carrots



Asparagus



Beets



Tomato

**Roots**

**Fruit**

**Stems**

**Leaves**

**Seeds**

**Flowers**



Cabbage



Broccoli



Eggplant



Corn



Spinach



# Plant Parts We Eat

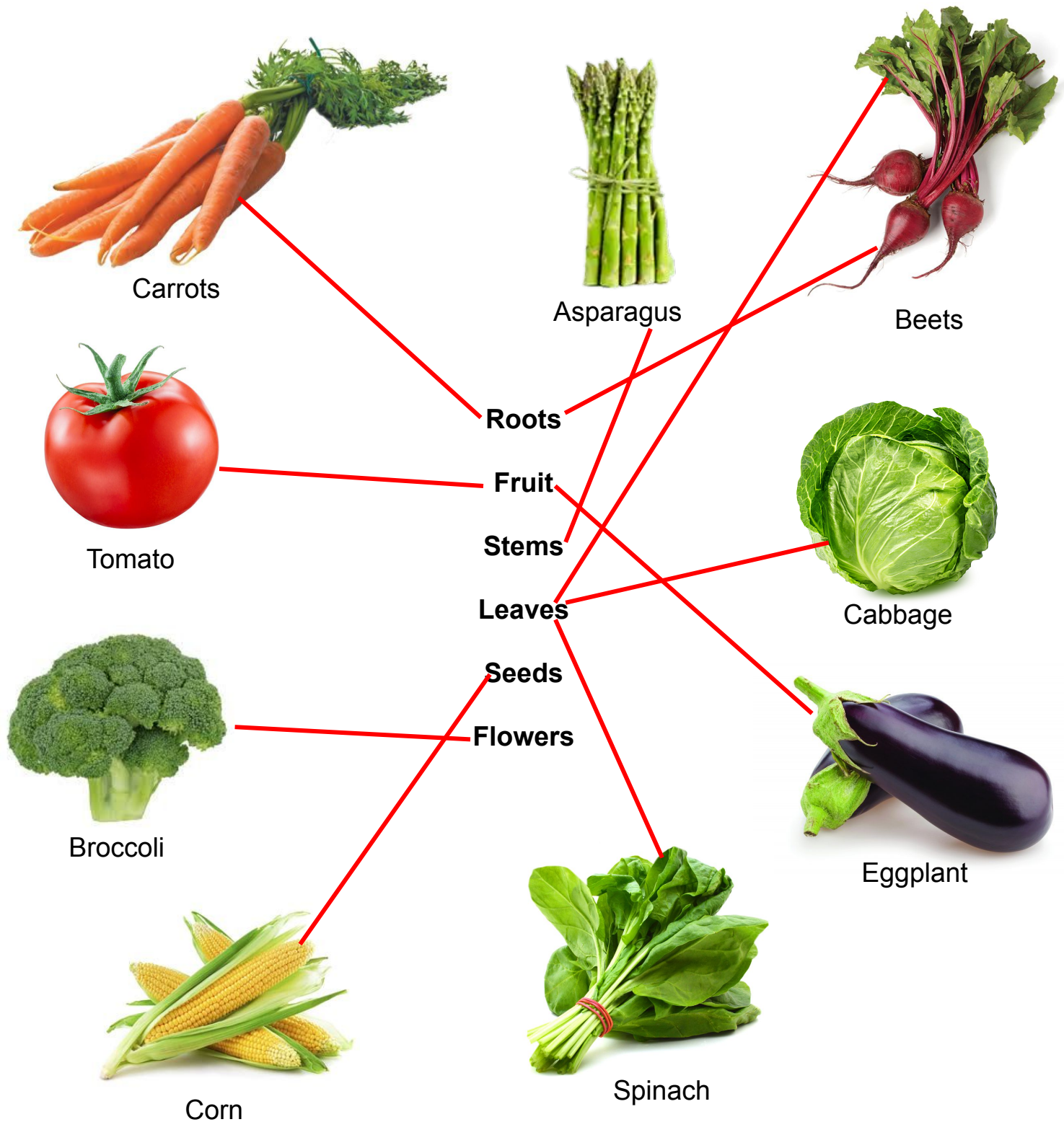
## Activity 1 Worksheet 1: Plant Parts we Eat

### ANSWER KEY



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Draw a line from the vegetables to the name of the part we eat.



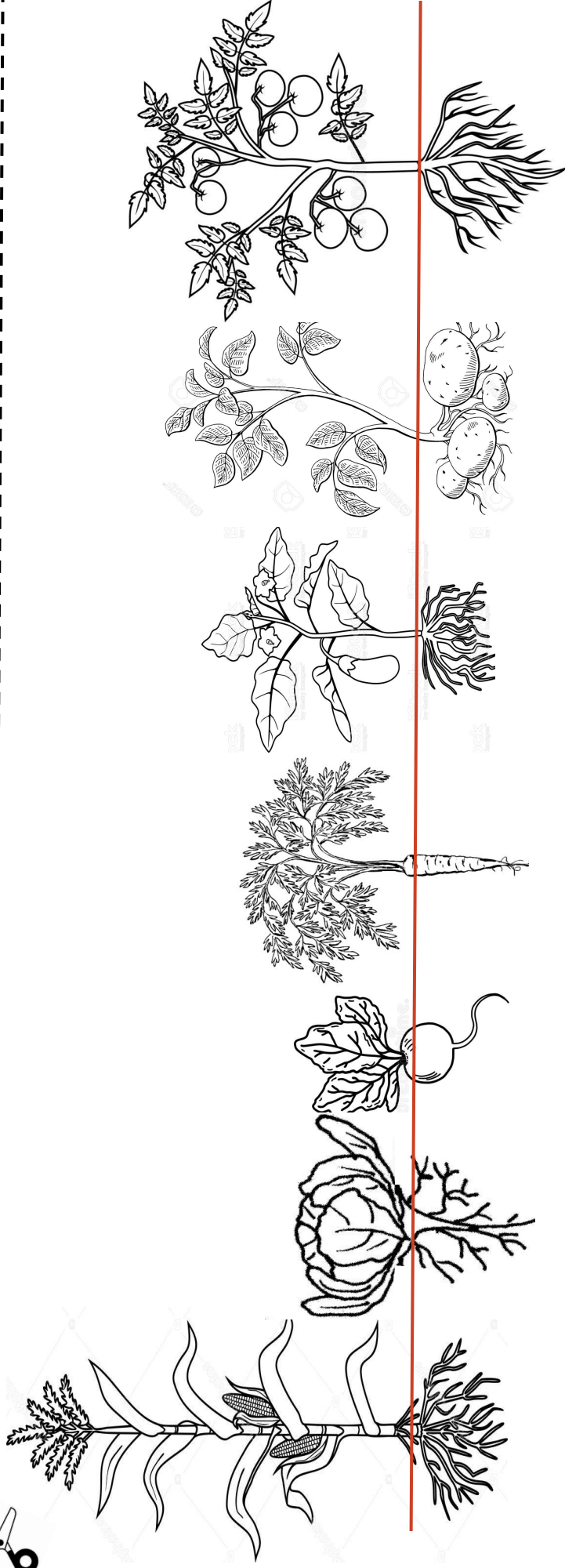


# Plant Parts We Eat

## Activity 2 Worksheet 2: Tops and Bottoms Fold-up Garden



Cut on the dotted lines. **Write your name on the back of your garden.** Color the vegetables. Color below the line brown for soil. Color above the line blue for sky. Fold the bottom part up to the middle. Write **BOTTOMS** on the outside of the flap. Fold the top part down to the middle. Write **TOPS** on the outside of the flap. When it is folded you should see **TOPS** and **BOTTOMS**. What plant parts you eat?



Corn

Lettuce

Radish

Carrot

Eggplant

Potato

Tomato



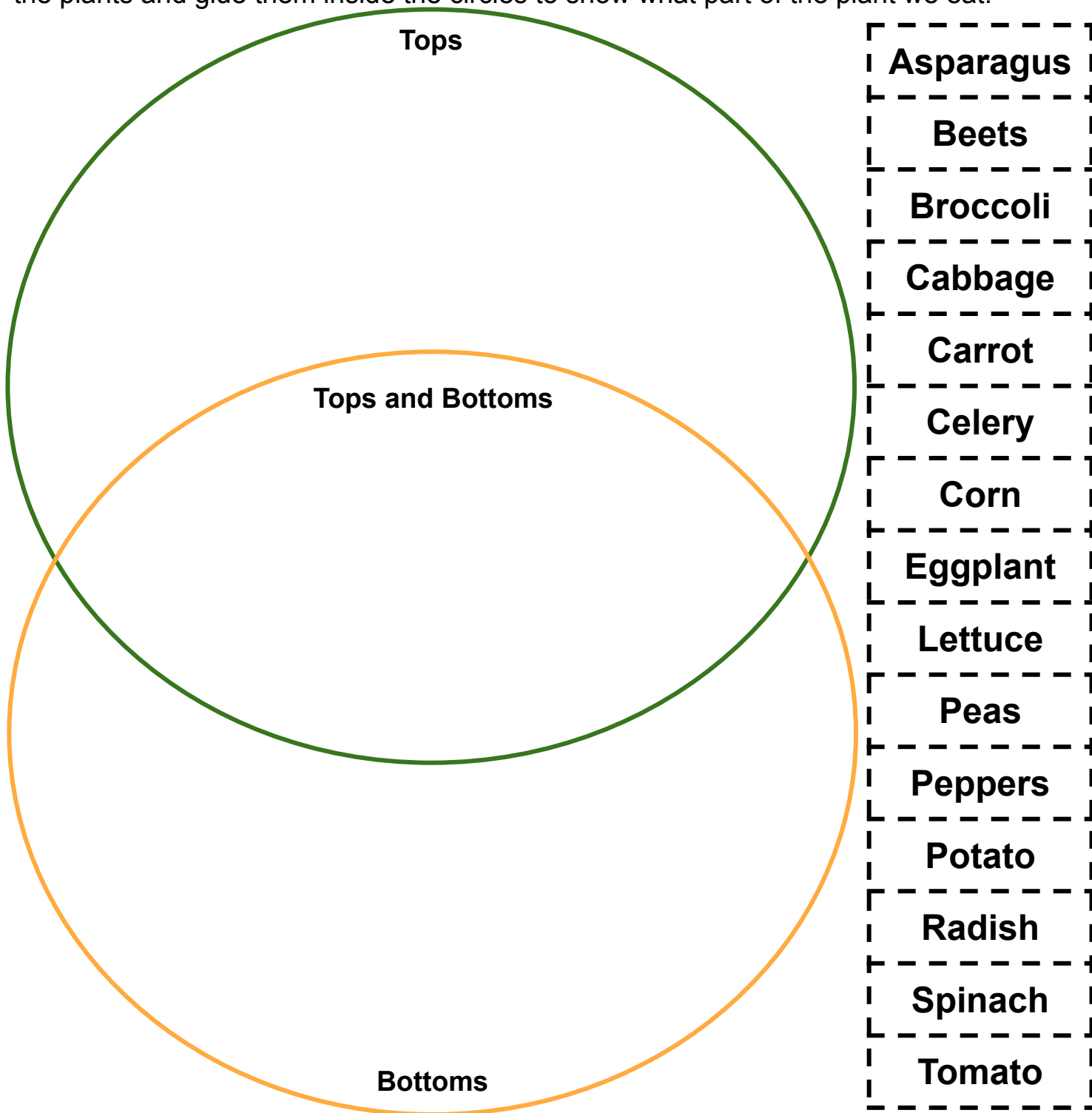
# Plant Parts We Eat

## Activity 2 Worksheet 3: Tops or Bottoms Comparison



Name: \_\_\_\_\_ Date: \_\_\_\_\_

We eat the tops of some plants. When we eat the top we eat the leaves, stems, seeds, flowers or fruit. We eat the bottoms of other plants. When we eat the bottom we eat roots and underground stems. We eat the tops and the bottoms of other plants. Cut out the plants and glue them inside the circles to show what part of the plant we eat.



# Plant Parts We Eat

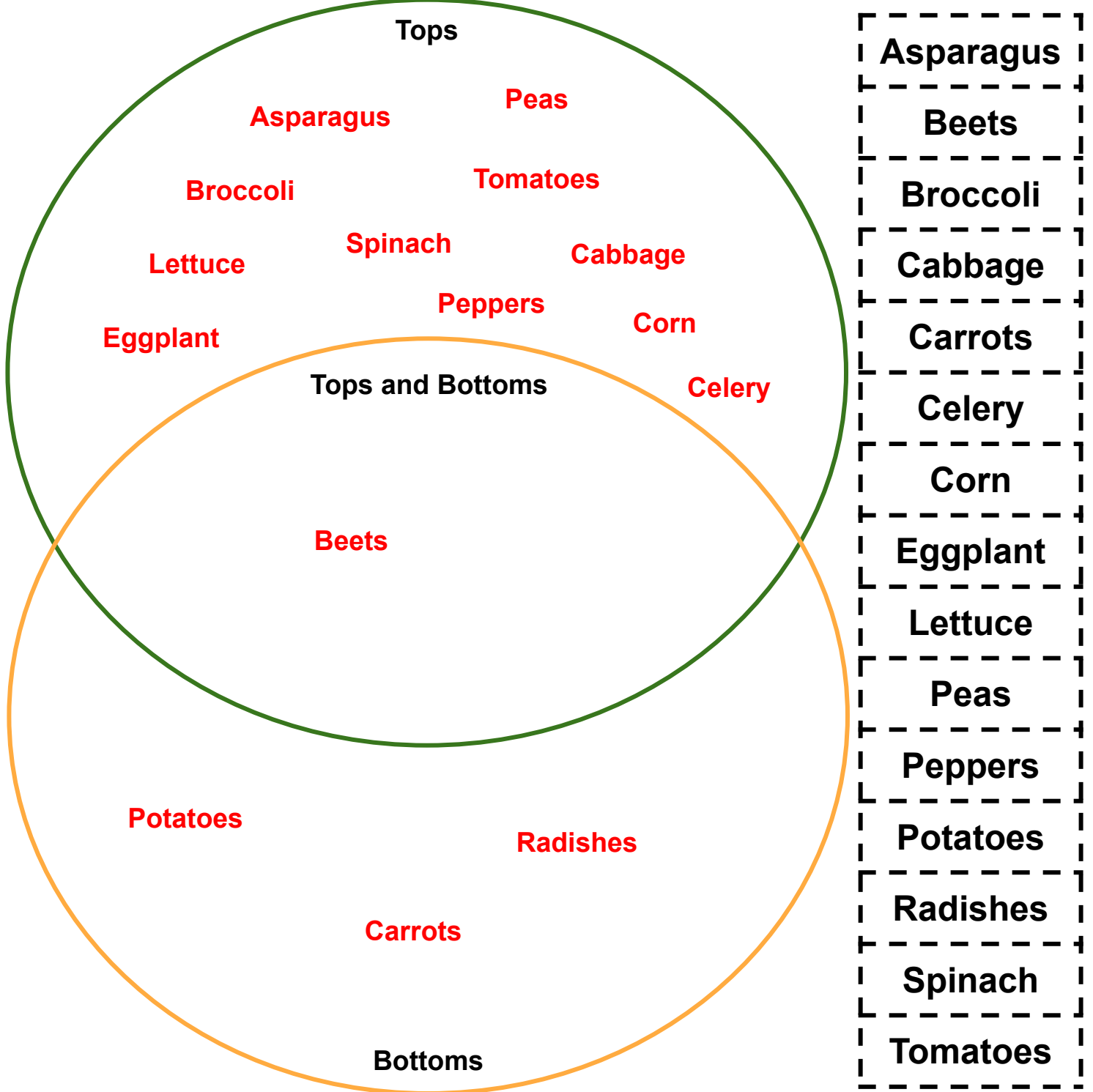
## Activity 2 Worksheet 3: Tops or Bottoms Comparison

### ANSWER KEY



Name: \_\_\_\_\_ Date: \_\_\_\_\_

We eat the tops of some plants. When we eat the top we eat the leaves, stems, seeds, flowers or fruit. We eat the bottoms of other plants. When we eat the bottom we eat roots and underground stems. We eat the tops and the bottoms of other plants. Cut out the plants and glue them inside the circles to show what part of the plant we eat.



# Plant Parts We Eat

## Activity 3

## Grades PK-2 Teacher Resources and Standards

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### Activity 3: Veggie Garden and Journal, (Science, Visual Arts)

**1-2 50 minute class periods**

Classes will plant a classroom garden. Students will make a paper bag journal, and then use vegetables and paint to decorate the journals or make pictures. Students will use common materials to create their own plant models which include stems, leaves, flowers, roots, seeds and/or fruit.

### Oklahoma Academic Standards

#### Activity 3: Veggie Garden and Journal (Science, Visual Arts)

- |              |   |
|--------------|---|
| PK.VA.CP.2.1 | Engage in self-directed creative play with art materials  |
| K.VA.CP.2.1  | Engage in directed exploration and imaginative play with art materials  |
| 1.VA.CP.2.1  | Engage collaboratively in exploration and imaginative play with materials   |
| 2.VA.CP.2.1  | Experiment with various materials and tools to explore personal interests in a work of art or design                                  |
| PK.S.2       | Make observations of the physical and natural world.  |
| K.LS1.1      | Use observations to describe patterns of what plants and animals (including humans) need to survive.                                  |
| 1.LS3.1      | Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents. |
| 2.LS4.1      | Make observations of plants and animals to compare the diversity of life in different habitats.                                       |

#### Materials:

- Activity 3 Reading Page 1 **“Plant a Classroom Garden”**
- Activity 3 Reading Page 2 **“Make a Paper Bag Journal”**
- Activity 3 Reading Page 3 **“Vegetable Prints”**
- Activity 3 Worksheet 1 **“Label the Parts of a Plant”**
- Vegetable seeds (radish, turnip, beets, leaf lettuce, kale, spinach, broccoli, cucumber, yellow or zucchini squash, etc. have varieties that are ready to harvest in 45 to 60 days.)
- Vegetables that can be re-grown (celery, carrots, leaf lettuce, etc.)
- Planting containers or pots
- Potting soil and water
- Sunny window, grow lights or full spectrum LED bulb
- Wagon to take plants outside when weather permits
- Supplies to make paper bag journals
  - Paper lunch bags (2-3 per student)
  - Scissors
  - Hole punch
  - Pipe cleaners, string or yarn
- Supplies for making vegetable prints
  - Heavy paper
  - Vegetables with texture (celery, broccoli, okra, oranges/lemons, bell peppers, corn, etc.)
  - Tempera paint (or acrylic or fabric paint if painting on fabric)

# Plant Parts We Eat

## Activity 3- Continued

## Grades PK-2 Teacher Resources and Standards

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### Materials (continued):

- Supplies for students to create their own plants
  - Straws
  - Pipe cleaners
  - String
  - Buttons
  - Balloons .

### Procedures

1. 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. There are tips on growing a classroom garden on Reading Page 1 “**Plant a Classroom Garden.**”
2. Students will observe plant growth and record their observations in a garden journal. Students will make paper bag journals using the instructions on Reading Page 2 “**Make a Paper Bag Journal.**”
3. Students will use an assortment of vegetables to make vegetable prints to decorate journals using instructions and examples from the Reading Page 3 “**Vegetable Prints.**”
4. Students will color the plant on Worksheet 1 “**Label the Parts of a Plant.**” They will cut out the words at the bottom of the page and glue them in place on the worksheet to label the parts of the plant.
5. Using Worksheet 1 “**Label the Parts of a Plant**” as a reference, students will create their own plants using common materials such as straws, buttons, strings, balloons, etc. Make sure the make-believe plants have roots, stems, leaves, flowers, fruit and seeds.



# Plant Parts We Eat

## Activity 3 continued

## Grades PK-2 Teacher Resources and Standards

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### Classroom Garden Growing Tips

Keep the pot in a sunny window or use a lamp with a full spectrum (package shows both CRI and Kelvin ratings) LED bulb during the school day. Once the danger of frost has passed, the pots can be moved outdoors to a location that gets at least 6-8 hours of sunlight each day. Many vegetables are “programmed” to begin producing when the soil is warm and the days get longer. Without supplemental light, many vegetables will not bear fruit indoors. If you purchase seed, be sure to get “short day” vegetables if there is a choice. A number of seed catalogs offer short and long day vegetables. Long day vegetables are designed for the northern US and Canada, where the growing season is short, but the summer days are very long.

In addition to planting seeds, consider ‘re-growing’ celery, carrots, radishes, onions, lettuce, cabbage, etc. By utilizing vegetable pieces that would generally be thrown away, you can give students the tools to help increase vegetable consumption and fight food insecurity. See Reading Page 1 “**Plant a Classroom Garden**” for more information. There are a number of internet tutorials that provide detailed information. Search for “regrowing vegetables”

In Oklahoma, there are generally several sunny winter days when the temperature is warm enough to take the pot outside for a few hours. If there is a protected area on the south side of the building and the temperature is above 50°F between 11am and 3pm, the pots can be moved back and forth from the classroom on a wagon or cart. Be sure to bring the pots back inside before the end of the day because all of these plants are sensitive to near-freezing temperatures.

By planting seeds indoors immediately after winter break and maximizing sun exposure on warm days, it may be possible to see the plants begin to develop fruit before the end of the school year. Radishes, leaf lettuce and spinach can be harvested in just a few weeks and summer squash (yellow, zucchini and patty pan), cucumbers, bush beans, and peas will begin to produce in about 6 weeks with enough sunlight. Broccoli, cauliflower and cabbage can be transplanted outdoors (or pots can be moved outdoors in early March.

If your school or your Agriculture Education program has a greenhouse, it would probably be the best location for the developing plants if you want your students to see fully developed vegetables.

Beans, peas, tomatoes, and peppers are self pollinating, which means each bloom has both male and female parts. Outdoors, the wind shakes the plants to insure good pollination. Indoors, you can turn an oscillating fan on low for an hour or so a day once the plants bloom to achieve the same thing. Or you can shake or tap the plants occasionally to shake the pollen.

Squash and cucumbers (along with all melons) have male and female flowers (the female flowers have a tiny fruit between the bloom and the stem). Outdoors, bees carry pollen from one bloom to another. Indoors, it may be necessary to hand pollinate these plants. The website below provides instructions on hand pollinating. Even if you are able to move these plants outdoors in April and May, bees may not be active enough at that time, so hand pollination may still be necessary.

<https://www.gardeningknowhow.com/edible/vegetables/squash/pollinate-squash-by-hand.htm>



Growing your own vegetables gives you fresh food all year long.

All you need is:

- Seed
- Potting soil
- Pots (cut the tops off clean milk jugs and reuse cans)
- A sunny window

Radishes, yellow squash and lettuce grow fast from seed.

You can also use scrap vegetables to grow new plants.

- Plant the “stump” of a celery bunch in 1 inch of water - a new plant will grow from the middle.
- Take part of a potato that has sprouted and plant 2 inches deep with the sprouts facing up in a deep pot or bucket filled with soil.
- Save the tops of carrots, turnips, radishes and beets and put them ½ inch of water. When roots grow, move the “tops” into 4-6 inch deep pots.



- To re-grow onions, cut 1 inch off the “root” end of the onion and place in ½ inch of water until green shoots and roots begin to grow, then plant in 4-6 inch deep pots. Green onion bulbs can be put in water to grow more tops.
- Leafy lettuce, kale or spinach - leave 1 inch of leaves above the root end and place in ½ inch of water.
- Stems of herbs like mint, basil and rosemary can be put in water until roots start to grow. Plant in soil when you can see roots.

### Supplies:

- Paper lunch bags
- Scissors
- Hole punch
- Pipe cleaners, yarn or string

### To decorate journals:

- Vegetables, fruits or seeds
- Water based paint or ink
- Markers or crayons

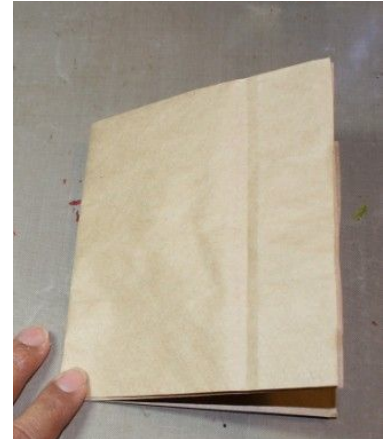
Fold down flap at bottom of the bag



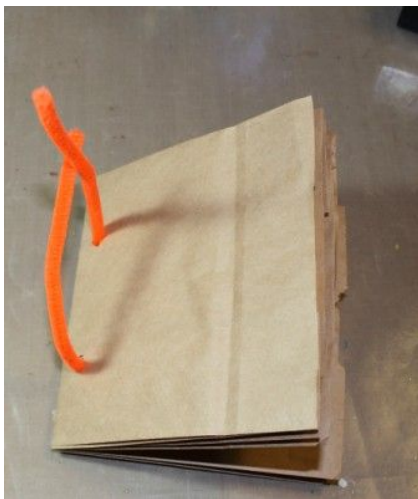
Cut on fold to take off the bottom of the bag



Fold each bag in half and press hard on the fold to crease bag



Punch holes in the folded side of bags and put together with string or pipe cleaners



Make vegetable prints to decorate the front and back cover of the journal





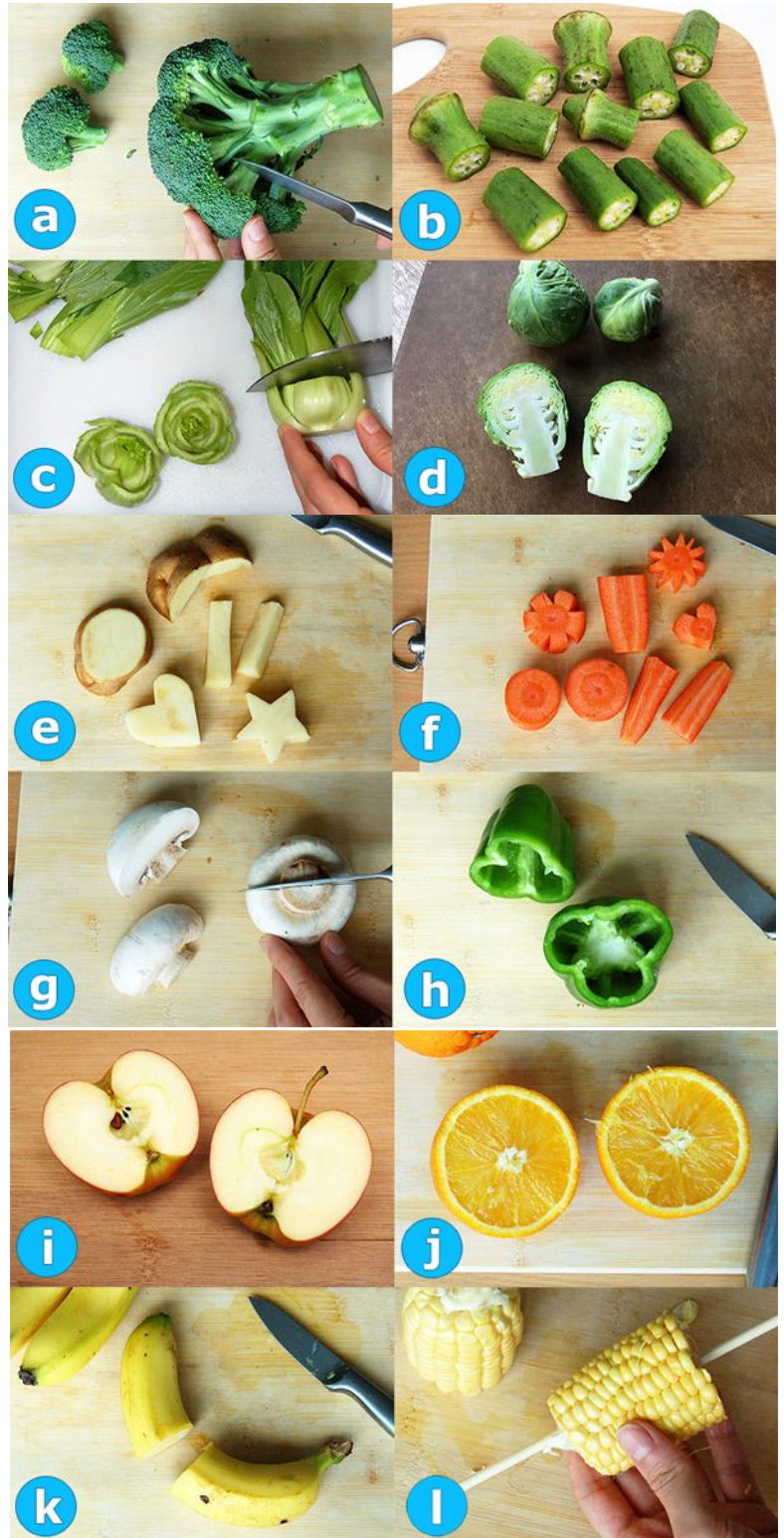
**Vegetables and fruits can be used to make prints on paper or fabric.**

Supplies needed:

- Paper or fabric
- Vegetables and fruits
- Tempera or poster paint (paper)
- Acrylic or fabric paint (fabric)
- Sharp knife
- Plastic plates or trays

**Adults will prepare vegetables and fruits**

- Broccoli and cauliflower** - separate into individual florets
- Okra** - cut into 1 inch long pieces
- Bok choy** - trim off the base, save it and use the rest (leaves/stems) for cooking
- Brussel sprouts** - cut in half, either crosswise or lengthwise
- Potato** - slice into quarters, wedges or cut into specific shapes such as a flower or star
- Carrot** - same as potato
- Mushroom** - slice button or any round mushrooms in half
- Bell pepper** - slice crosswise in half, remove the seeds
- Apples and pears** - cut lengthwise in half
- Oranges and lemons** - cut crosswise in half
- Banana** - cut in half or cut crosswise into 2-inch long pieces
- Corn** - cut in half and as an option skewer with a stick to make a handle



Source: firstpallet.com  
<https://www.firstpalette.com/craft/fruit-vegetable-prints.html>



Put different colors of paint in shallow plates or containers. Use tempera or poster paint if you are printing on paper. For fabric, go with acrylic paint or fabric paint. Add some water but do not water down too much. Mix well.



Lift the fruit or veggie from the paint and gently shake off any dripping or excess paint.



Lift the fruit or vegetable from the paper to check out the colored print.



Dip a fruit or vegetable in one color of paint, making sure that the bottom is evenly-coated with paint.



Press the painted side of the fruit or vegetable firmly onto the paper or fabric.



Wipe the paint off the vegetable or fruit before dipping in paint again. Experiment with different vegetables to create patterns.



# Plant Parts We Eat

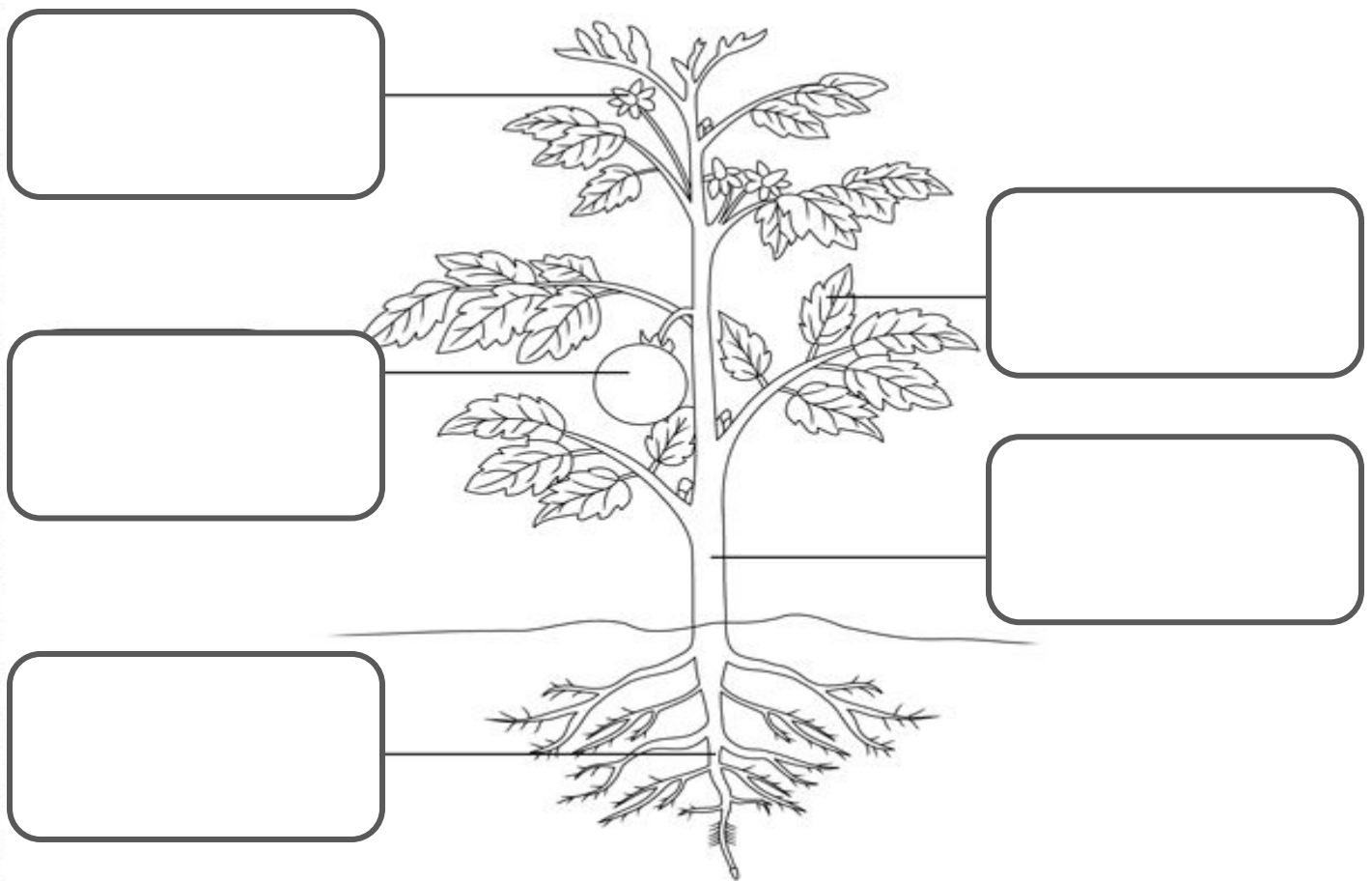
## Activity 3 Worksheet 1: Label the Parts of a Plant



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Color the plant. Cut out the words below and glue them in the boxes.

# Label the Parts of a Tomato Plant



**Flower** **Fruit** **Stem**

**Leaf** **Root**



# Plant Parts We Eat

## Activity 3 Worksheet 1: Label the Parts of a Plant

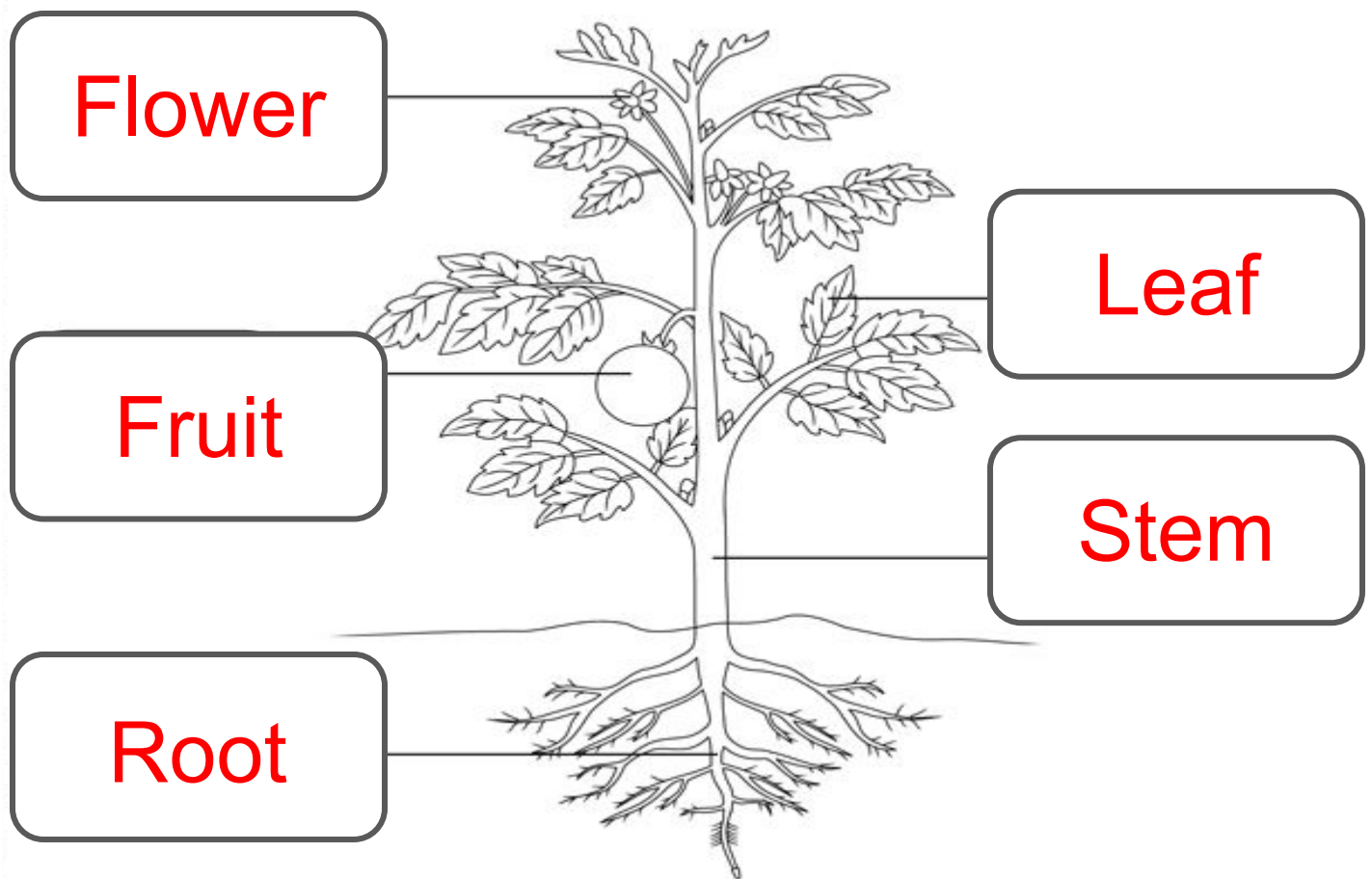
### ANSWER KEY



Name: \_\_\_\_\_ Date: \_\_\_\_\_

Color the plant. Cut out the words below and glue them in the boxes.

# Label the Parts of a Tomato Plant



# Plant Parts We Eat

## Activity 4

## Grades PK-2 Teacher Resources and Standards

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### Activity 4: Veggie Math, (Math)

**1 50 minute class period**

Students will count, sort, measure and describe a variety of vegetables.

### Oklahoma Academic Standards

#### Activity 4: Veggie Math (Math)

- |           |  |
|-----------|--|
| PK.N.2.2  | Use one-to-one correspondence in counting objects and matching groups of objects.  |
| PK.A.1.1  | Sort and group up to 10 objects into a set based upon characteristics such as color, size, and shape and explain verbally what the objects have in common.                             |
| K.A.1.1   |  |
| PK.GM.2.1 | Identify measurable attributes of objects. Describe them as little, big, long, short, tall, heavy, light, or other age appropriate vocabulary.   |
| K.GM.2.1  | Use words to compare objects according to length, size, weight, position and location.   |
| K.GM.2.2  | Order up to 6 objects using measurable attributes, such as length and weight.  |
| K.N.3.1   | Distribute equally a set of objects into at least two smaller equal sets.  |
| 1.GM.2.1  | Use nonstandard and standard measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement.  |
| 1.GM.1.4  | Recognize three-dimensional shapes such as cubes, cones, cylinders, and spheres.   |
| 1.GM.2.2  | Illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other. |
| 2.GM.2.2  | Explain the relationship between length and the numbers on a ruler by using a ruler to measure lengths to the nearest whole unit.  |

#### Materials:

- Activity 4 Worksheet 1 “**Vegetable Shapes**”
- Activity 4 Worksheet 2 “**Veggie Deals**”
- At least 10 different fresh vegetables - include a variety of shapes and sizes to sort, compare and measure
- Ruler
- Flexible measuring tape (the kind used for sewing) or string to be used with a ruler
- Paper clips
- Poster board
- Double stick tape
- Kitchen Scale

# Plant Parts We Eat

Activity 4- Continued

Grades PK - 2 Teacher Resources and Standards

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## Procedures:

1. Lay a variety of fresh vegetables on a table.
2. Use Worksheet 1 “**Vegetable Shapes**” to decide whether a vegetable is more like a sphere, cylinder, cone or another shape
3. Students will place the vegetables in order from shortest to longest and name each vegetable.
4. Students will use a kitchen scale to weigh each of the vegetables and record the weight in ounces. Write weights on the board. Ask students which vegetable weighed the most and which vegetable weighed the least.
5. Students will measure the circumference, length, etc., of the vegetables, using a flexible (sewing) tape measure or a string and ruler. To measure circumference, be sure to measure the largest part of the vegetable. Measure length by placing the vegetable on top of the ruler and marking the end of the vegetable. To illustrate a different way to measure, lay paper clips end to end on the table (it helps to secure them to a piece of poster board with double-stick tape). Lay the vegetable on top of the row of paper clips and count the number of paper clips. Compare the measurement in “paper clips” to the measurement in inches. Write the totals on the board.
6. Bring grocery ads to class or use Worksheet 2 “**Veggie Deals**” if grocery ads are not available.  
—Students will find the price for one pound of roots, one pound of stems, one pound of fruit, one pound of leaves, one pound of seeds, and one pound of flowers.  
—Explain that most vegetables will not be exactly one pound when purchased at the store and one must use math to figure out how much a head of broccoli, a bunch of carrots, or an ear of corn will cost. If decimals and fractions have been introduced, create one or two problems for the class to work together.

# Plant Parts We Eat

## Activity 4 Worksheet 1: Vegetable Shapes



Name: \_\_\_\_\_ Date: \_\_\_\_\_

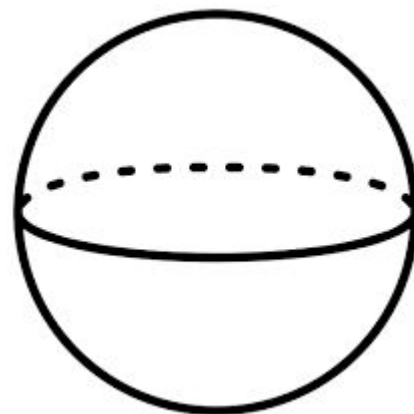
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Which vegetables are shaped most like a **sphere**?

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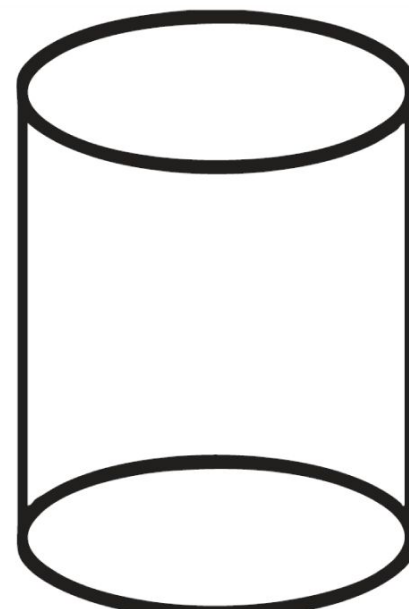
Which vegetables are shaped most like a **cylinder**?

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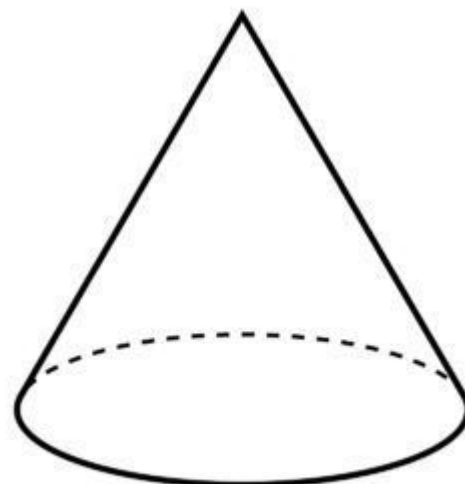
Which vegetables are shaped most like a **cone**?

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# Plant Parts We Eat

## Activity 4 Worksheet 1: Vegetable Shapes

### ANSWER KEY



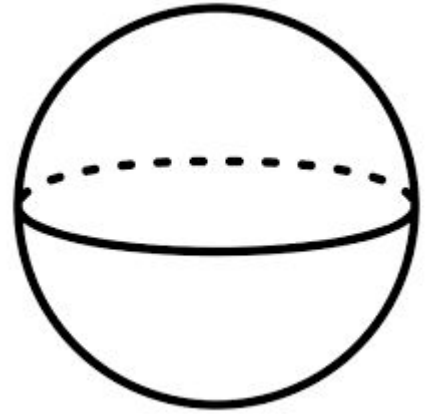
Name: \_\_\_\_\_ Date: \_\_\_\_\_

Which vegetables are shaped most like a **sphere**?

Radishes, beets, tomatoes, red potatoes

Brussels sprouts, onions, turnips, some pumpkins

Cabbage, iceberg lettuce



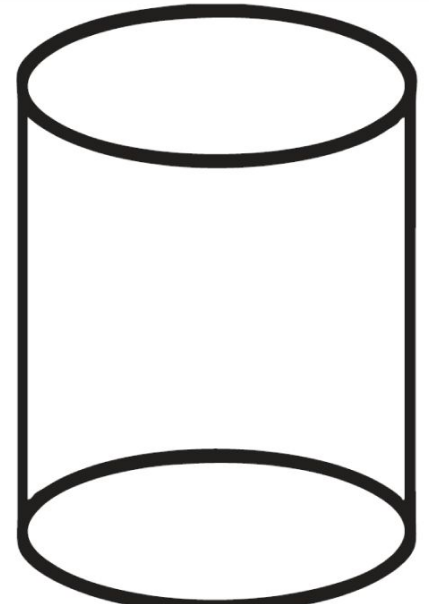
Which vegetables are shaped most like a **cylinder**?

Corn, cucumbers, zucchini, eggplant, some

potatoes, most sweet potatoes, some peppers,

bean and pea pods, celery (the bunch, not the

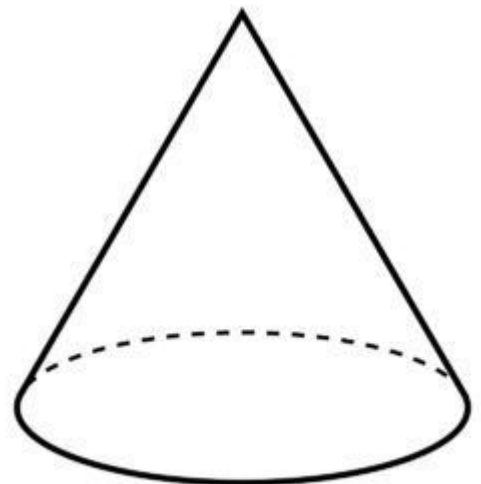
individual stalks), green onions



Which vegetables are shaped most like a **cone**?

Carrots, artichokes, okra (could also be a

cylinder), some peppers, some radishes



# Plant Parts We Eat

## Activity 4 Worksheet 2: Veggie Deals



Name: \_\_\_\_\_ Date: \_\_\_\_\_

### This Week's Vegetable Deals

**Fresh Carrots**  
\$1.49 per pound



**Fresh Spinach**  
\$2.98 per pound

**Organic Tomatoes**  
\$2.99 per pound



**Corn on the Cob**  
\$3.98 per pound



**Broccoli**  
\$2.44 per pound



**Asparagus**  
\$2.98 per pound

**Find the price of:**

1 pound of roots \$ \_\_\_\_\_

1 pound of fruit \$ \_\_\_\_\_

1 pound of seeds \$ \_\_\_\_\_

1 pound of flowers \$ \_\_\_\_\_

1 pound of leaves \$ \_\_\_\_\_

1 pound of stems \$ \_\_\_\_\_



# Plant Parts We Eat

## Activity 4 Worksheet 2: Veggie Deals



Name: \_\_\_\_\_ Date: \_\_\_\_\_

### This Week's Vegetable Deals

**Fresh Carrots**  
\$1.49 per pound



**Fresh Spinach**  
\$2.98 per pound

**Organic Tomatoes**  
\$2.99 per pound



**Corn on the Cob**  
\$3.98 per pound



**Broccoli**  
\$2.44 per pound



**Asparagus**  
\$2.98 per pound

**Find the price of:**

1 pound of roots \$ 1.49

1 pound of fruit \$ 2.99

1 pound of seeds \$ 3.98

1 pound of flowers \$ 2.44

1 pound of leaves \$ 2.98

1 pound of stems \$ 2.98