



# An Apple a Day!



## Introduction

In the book "What's in the Garden?" the reader is introduced to twelve different vegetables and fruits. In this activity, students focus on apples and learn more about them through various activities and experiments.

## Materials Needed

- ◆ A copy of "What's in the Garden?"
- ◆ Basket of different types of apples: (Cortland, Golden Delicious, Granny Smith)
- ◆ Paper and magic markers

## Key Concepts

- ◆ Unifying concepts and processes through evidence, models and explanation
- ◆ Understandings about scientific inquiry
- ◆ Characteristics of organisms, organisms and environment
- ◆ Humans depend on environments

## Procedure

1. Read the book, as students guess the fruit or vegetable in the rhyme, before turning the page to see what it is.
2. Ask students how the apple is different from the other fruits and veggies in the book.
3. Read the first line: "In spring there are blossoms" all over the tree. Discuss the life cycle of an apple tree.
4. Pass out paper and markers. Ask students to fold paper into four squares and draw the four seasons of an apple tree. Spring with blossoms, summer with green apples, fall with red apples and fall colors, and in winter bare.
5. Older students can study the life cycle in more detail, i.e. how the tree rests in winter, drawing branches with little leaf buds that unfold in the spring and grow into flowers. Honeybees collect the sweet nectar in the blossoms, picking up pollen. When the bee lands on another apple blossom, it leaves pollen grains on the sticky stigma which reaches the ovary, which when fertilized becomes a seed. The outer wall of the ovary develops into the fleshy white part of the apple. The inner wall becomes the apple core around the seeds. In summer the green apples grow bigger and change color, and are ready for harvest in the fall.

## Additional Resources

Find out more about the old saying, "An apple a day, keeps the doctor away." at <http://urbanext.illinois.edu/apples/facts.cfm>. Lots of interesting apple facts on this site.

Books about apples:

- Apples, Apples, Apples by Nancy Elizabeth Wallace, Winslow Press 2000
- How Do Apples Grow? By Betsy Maestro, Collins 1993
- Johnny Appleseed by Reeve Lindbergh, Little, Brown Books 1993
- The Season of Arnold's Apple Tree by Gail Gibbons, Sandpiper 1988
- The Tree That Bear Climbed by Marianne Berkes, Sylvan Dell, 2012

## Nature Connections

- Ask students where they think the apples in the basket came from? From a tiny apple seed, many apples make a long journey from an orchard to get to where you buy them. What state do they think each apple grew in? (e.g. Cortland is in New York; what other states are known for growing apples?)
- Have children compare the different color apples, and record what they see. Do they smell the same?
- Cut the apples in half horizontally instead of vertically to reveal a star shape in the center and the seeds. Have children predict how many seeds they will find in each apple.



# Fruit or Vegetable?



## Introduction

In the book "*What's in the Garden?*" the reader is introduced to twelve different vegetables and fruits. In this activity, students use the reproducible bookmarks and decide whether a garden plant is a "fruit" as well as a "vegetable."

## Materials Needed

- ◆ A copy of "*What's in the Garden?*"
- ◆ Reproducible Bookmarks of the twelve garden plants in the book

## Key Concepts

- ◆ The term "fruit" is a scientific term. It refers to the part of the plant that contains the seeds.
- ◆ The term "vegetable" is a cooking term. It refers to a plant or part of a plant that is used for food, including the flowers, fruits, leaves, roots, or stems.

## Procedure

1. Go to: [www.dawnpub.com](http://www.dawnpub.com) and click onto "Teachers/Librarians." Scroll down to the cover of "*What's in the Garden?*" Download enough of the twelve reproducible bookmarks for your class.
2. Read the book to students, including the glossary "Food for Thought" to older students.
3. Pass bookmarks out to students (If you have 24 students in your class, you will need two of each vegetable or fruit bookmark.)
4. Read the terms for what is a "fruit" and what is a "vegetable" as stated in the box under "Key Concepts."
5. Then go to the beginning of the book again, turning to the page that has a picture of the fruit or vegetable (a recipe is also on that page.) For example, the book begins with a verse about apples. Ask student(s) who has an apple bookmark whether he/she thinks it's a fruit or vegetable and why?



## Additional Resources

The USDA recommends that we fill half of our plate with fruits and vegetables. The *Fruits & Veggies More Matters* website offers tips for helping kids eat more fruits and veggies.

<http://www.fruitsandveggiesmorematters.org/>

"Eating a Rainbow" is an easy way to encourage kids to eat a variety of fruits and vegetables. This squidoo website provides links to various "rainbow" resources: <http://www.squidoo.com/eat-a-rainbow>.

## Nature Connections

- Ask students to share with the class if they enjoy eating the vegetable or fruit illustrated on the bookmark they are holding and how they enjoy eating it best.
- Bring into class some of the vegetables and fruits in the book so students can have a look at the real thing. You might bring an ear of corn (the kernels are the seeds, so it is considered both a vegetable and a fruit) an apple (fruit), pumpkin (we eat pumpkin pie, but it also contains seeds, so a pumpkin is another one that is both a fruit and a vegetable) and lettuce (a vegetable.)



# Let's Get Cookin'

## Introduction

Students make a salad using all six plant parts, as indicated in "Accept the Salad Challenge" on page 30 of the book. They also explore various food traditions after reading the book.

## Materials Needed

- ◆ A copy of "What's in the Garden?"
- ◆ A whiteboard or blackboard on which to write the six parts of a plant.
- ◆ Markers or chalk

## Procedure

1. Read the book as students guess the fruit or vegetable in the rhyme, before turning the page to see what it is.
2. Discuss the drawing on page 30 with the six plant parts. Tell students the class is going to "Accept the Salad Challenge" at the bottom of the page. (Older students may want to try this on their own.)
3. List the six plant parts in columns on the board.
4. Ask the children what vegetable they would put in the first column, which you have labeled "roots" (carrots)
5. Now ask children which vegetable in the book would be a "stem" that we could add to our salad. (celery)
6. In the next column labeled "leaf" students would say "lettuce."
7. Column 4 is "flower" and you would list "broccoli"
8. Column 5 is "fruit" and students may say "apple" or "blueberry" before tomato, cucumber or pumpkin.  
Explain those latter three are also considered fruits because they have seeds, even though they are also considered a vegetable for cooking. Ask them to choose between cucumbers or tomatoes for the salad.
9. Column 6 is "seeds" and one that would work there would be "toasted pumpkin seeds," although corn kernels are also seeds and if cooked, they could be added to a salad—another opportunity for more discussion.
10. You may want to actually prepare the salad with your students, and make a favorite dressing to go with it. Be sure to go over the cooking basics on page 31 if you do. You will need to decide how the chosen vegetables are to be prepared: washed, chopped, cut in slices, coarsely shredded (grated), etc.
11. With the class put the recipe together using the correct cooking words.
12. Older students may want to design a recipe card for a six-part salad they created, using their favorite fruits or vegetables not necessarily in the book--perhaps a salad with different kinds of leaves or a salad with a different fruit. (For example, I've had a delicious spinach salad that contained strawberries.)

## Key Concepts

- ◆ Unifying concepts and processes through evidence, models and explanation
- ◆ Systems, order and organization
- ◆ Characteristics of organisms, organisms and environment
- ◆ Humans depend on environments

## Additional Resources

- ◆ Cooking in the classroom:  
<http://www.kidsgardening.org/activity/cooking-classroom>
- ◆ Choosing the best cookbooks:  
<http://www.kids-cooking-activities.com/best-kids-cook-books.html>

## Nature Connections

Observe the various children eating the fruits and vegetables in the book. What do you notice about them? Discuss food traditions in different cultures and ask students to bring in a copy of each family's favorite recipe to put together in a special class cookbook.



# Name that Plant Part!

## Introduction

Students learn about the six parts of a plant and match the twelve fruits and vegetables in the book to a specific plant part.

## Materials Needed

- ◆ A copy of "What's in the Garden?"
- ◆ As many real fruits and vegetables as possible that are in the book, to use for demonstration.
- ◆ Paper and magic markers

## Key Concepts

- ◆ Unifying concepts and processes through evidence, models and explanation
- ◆ Understandings about scientific inquiry
- ◆ Characteristics of organisms, organisms and environment
- ◆ Humans depend on environments

## Procedure

1. Read the book, as students guess the fruit or vegetable in the rhyme before turning the page to see what it is.
2. If you have provided the actual fruit or vegetable, hold it up for students to see it; then go on to the next verse.
3. Older students can also enjoy the "Food for Thought" pages before going to "How Does your Garden Grow?" on page 30. (You can download reproducible bookmarks of the twelve fruits and veggies on the Dawn Publications website.)
4. Discuss the drawing on page 30, showing the six plant parts, and read the section entitled "Plants are made up of six different parts."
5. Now go back to the beginning of the book, and point to each picture of the vegetable or fruit. Students can tell you whether it is a root, stem, leaf, flower, fruit or seed. (This is more complicated that you might think and can lead to much discussion. The corn kernels we eat are the seeds of the plant, and potatoes are tubers that are enlarged underground stems. An onion is a bulb that has roots and stems, so what is it really?)
6. Ask students to share with the class which of the twelve fruits and vegetables in the book is their favorite. How do they like to eat it?
7. As you use music to promote learning, younger children especially will enjoy singing "Roots, Stems, Leaves," a song for teaching the part of a plant by the Banana Slug String Band.

<http://www.songsforteaching.com/bananaslugstringband/rootsstemsleaves.htm>

## Additional Resources

- Plant parts we eat:  
<http://www.clover.okstate.edu/fourh/aitc/lessons/primary/parts.pdf>
- Teachers Guide to "The Great Plant Escape" – six parts of a plant:  
<http://urbanext.illinois.edu/gpe/case1/c1facts2a.htm>



## Nature Connections

- Have students draw a favorite fruit or vegetable that is not in the book. Ask older children to draw it fully grown in a garden, showing roots, stems, leaves, etc. Students can share their pictures, telling the class how they like to eat their favorite fruit or vegetable best.
- Ask students to bring in a favorite fruit from home. Examine the seeds and save some. Plant them in a classroom window. Track the development of the new plants.



# Pollinator or Pest?



## Introduction

Students find animals in the book, including the six pollinators: cabbage white butterflies, ladybugs, bumblebees, garden spiders, honeybees, and squash bees, and discuss their effects on growing a garden. In a Venn Diagram older students list which creatures are pollinators, and which are pests.

## Materials Needed

- ◆ A copy of "What's in the Garden?"
- ◆ Paper and pen or pencil
- ◆ Venn Diagram

## Procedure

1. Read the book, as students guess the fruit or vegetable in the rhyme, before turning the page to see what it is.
2. Go back to the beginning of the book and ask students to look for and/or list the animals they see on the pages with the rhymes.
3. They are: wren; cottontail rabbits; black swallowtail caterpillar; harlequin bugs and cabbage white butterflies; mockingbird; robins, earthworm and slug; aphids and ladybug; bumblebee; potato beetles and garden spider; crow and honeybees; squash bug and squash bee; green darner (dragonfly).
4. Ask younger students: How many are birds? How many are insects? Are there any mammals? Which creatures in the book are the busiest pollinators?
5. Older students, using a Venn diagram, can list pollinators in one circle, pests in the other, and in the middle area where the two circles overlap, list the animals in the book that they think are neither pests nor pollinators. <http://www.graphic.org/venbas.html>
6. This can lead to further research and discussion. Are rabbits pests in a garden? What about spiders? Hummingbirds are usually thought of as the pollinators of the bird world. But are there other birds that pollinate?

- ◆ Why is an earthworm called "nature's plow?"
- ◆ How can you get rid of slugs in a garden?
- ◆ What other vegetables do potato beetles eat besides potato leaves?
- ◆ Why did the illustrator put ladybugs on the same page with aphids?

## Additional Resources

<http://greatpollinatorproject.org/education>

<http://kidsgrowingstrong.com/pollination>



## Key Concepts

- ◆ Unifying concepts and processes through evidence, models and explanation
- ◆ Understandings about scientific inquiry
- ◆ Characteristics of organisms, organisms and environment
- ◆ Humans depend on environments

## Nature Connections

Different flowers attract different pollinators. Flies, for example, are attracted to stinky flowers that smell like rotting meat, while hummingbirds particularly love red and orange flowers loaded with sweet nectar. Bats use their keen sense of smell to find fruity night blooming flowers, while butterflies visit flowers with a flat surface upon which they can land. On large paper draw or cut out pictures of flowers designed to attract certain pollinators. Play "Flower Power" as students who are the pollinators buzz, fly, or crawl to the flower best adapted for pollination by them.

# What's in the Garden?

By Marianne Berkes  Illustrated by Cris Arbo

## Applesauce

8 apples



1 cup water



A pinch of salt



Honey or brown sugar to taste.



Cinnamon to taste



Wash and core apples. Cut into quarters and place in saucepan. Add water and salt. Cook until tender and then mash and put through strainer. Return to saucepan. Add brown sugar or honey to taste and simmer for about three minutes, stirring constantly. Cool and enjoy!

## Mixed "Green" Salad

2 handfuls iceberg lettuce

2 handfuls leaf lettuce



2 handfuls spinach leaves

10 or more grape tomatoes



Salt and pepper to taste



2 Tbsp. olive oil



1 tsp. fresh lemon juice



1 tsp. yellow mustard



1 tsp. honey



Rinse salad greens. Pat dry on paper towels. Tear the leaves into smaller pieces and combine in a large bowl, adding rinsed grape tomatoes. For dressing, combine last four ingredients in a jar with a lid and shake. Add dressing when ready to serve so salad does not get soggy. Add salt and pepper to taste.

## Carrot Muffins

2 cups all-purpose flour



1 Tbsp. baking powder



2 tsp. baking soda



1 tsp. salt



1 tsp. cinnamon



4 large eggs



1 cup applesauce



¼ cup vegetable oil



¾ cup brown sugar



4 cups grated carrots (about 4 large)



Preheat oven to 350°F. Sift together first five ingredients in bowl. In a larger bowl combine eggs, oil, applesauce and brown sugar. Beat well and add flour mixture until moistened. Fold in grated carrots. Spoon into greased muffin pan or use paper liners. Bake 20-30 minutes until lightly browned. Makes about 20. Best with cream cheese frosting!

## Broccoli Trees

Broccoli



1 8-oz. pkg. of cream cheese



1 8-oz. carton plain yogurt



1 envelope (0.4 oz) dry Ranch salad dressing mix



Place broccoli on cutting board. With small, sharp knife, ask a grown-up to trim off ends of stems to make "spears"

with florets. Place in colander under cold running water and rinse. Drain well and serve with dip. For dip, put the cream cheese, yogurt and ranch dressing mix in a medium mixing bowl. Beat with an electric mixer on medium speed until smooth. Refrigerate until ready to use. Makes about two cups.

# What's in the Garden?

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## Libby's Blueberry Pie

2 refrigerated pie crusts  
(store-bought)

4 cups fresh blueberries (rinsed)



½ cup all-purpose flour



¾ cup sugar



1 Tbsp. fresh lemon juice



1/8 tsp. salt



Preheat oven to 350 degrees. Press one of the pie crusts into 10 inch pie plate. Place blueberries in a large bowl and add flour. Toss to coat. Add sugar, lemon and salt, mixing lightly.

Pour berries into pie shell. Cut other pie crust into 1 inch strips and place on top of crust in criss-cross pattern to form a lattice. Bake 45-60 minutes or until bubbly.

## Ants on a Log

Celery stalks



Pkg. of cream cheese



Tub of cottage cheese



Jar of peanut butter



Box of raisins



Rinse celery stalks and dry with paper towels. Put stalks on cutting board and ask a grownup to trim leafy parts off celery stalks with a small sharp knife. With table knife, fill groove of each celery stalk with the spread of your choice. Put a few raisins on top of spread. With peanut butter especially, raisins looks like “ants on a log!”

## Easy Tomato Sauce

1 pound of fresh tomatoes



1 Tbsp. olive oil



1 small chopped onion



1 clove garlic, chopped  
(or use garlic press)



½ tsp. salt



¼ tsp. fresh pepper



3 tsp. balsamic or sherry vinegar



Fresh chopped basil (optional)



Wash, core and cut tomatoes in half. Put olive oil in baking pan, add tomatoes, and cook in preheated 350°F oven until skins split. Put into a blender and liquefy. Combine remaining six ingredients and simmer on top of stove for 20 minutes. Great on spaghetti and lots of other dishes.

## Sweet & Sour Cucumber Salad

2 large cucumbers



1 small onion



Salt and pepper to taste



¼ cup vinegar



1 tsp. sugar



¼ cup vegetable oil



¼ cup fresh chopped parsley















Peel cucumbers and slice paper thin. Also slice a small onion into onion rings. Place in serving bowl with cucumbers. Add salt and pepper and toss. Mix the remaining ingredients in a jar or cup with a whisk and pour over cucumbers and onions. Stir and let chill for at least two hours before you serve it.

# What's in the Garden?

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## French Onion Soup


- 1 tablespoon butter 
- 1 cup sliced onions  
- ½ tsp. all-purpose flour 
- ½ tsp. sugar 
- 3 cups beef or vegetable broth   
- 1 Tbsp. Worcestershire sauce 
- 3 Tbsp. grated Parmesan cheese   

Thick French bread, toasted

Melt butter in large pot. Add onions and slowly cook onions until soft. Stir in flour and sugar and cook one minute. Add broth and Worcestershire sauce. Simmer 30 minutes. Cool and put in refrigerator until ready to serve. Reheat on stove or in microwave. Put one slice of toasted French bread in each serving bowl. Sprinkle with cheese and add reheated soup.







## Garlic Mashed Potatoes

- 4 cups peeled potatoes     
- 1 garlic clove, peeled and halved 
- ¼ cup warm milk 
- ¼ cup sour cream 
- 1 Tbsp. fresh parsley, finely chopped 
- 1 tsp. butter or margarine 
- ½ tsp. salt  

Pepper to taste 






Cut potatoes into quarters. Put potatoes and garlic in a large pot and cover with water. Put a lid on the pot and bring to a boil over medium-high heat. When water begins to boil, remove lid and boil for 20 minutes or until tender when poked with a fork. Drain well and return to pot. Add remaining ingredients and mash until light and fluffy. Makes 4-5 servings.

## Honey Corn

- 2 Tbsp. honey  
- 4 ears of corn 
- Butter 
- Salt and pepper to taste  

Remove husks and silk from the ears of corn and rinse. Fill a large pot half full with water and bring to a boil. Stir in honey and then drop corn gently so you don't splash yourself. Cook 3 to 4 minutes. Lift the corn out of the water with tongs and drain on paper towels. Serve with butter, salt and pepper.

## Roasted Pumpkin Seeds

- Pumpkin Seeds 
- Paper towels 
- Aluminum foil 
- Butter or Cooking Spray 
- Salt or cinnamon and sugar 

Preheat oven to 300°F. Wash pumpkin seeds, removing the pulp, and dry them on paper towels. Line a cookie sheet with aluminum foil. Spread a little butter or put cooking spray on the foil and add the pumpkin seeds, arranging them in a thin layer. Sprinkle with sea salt, or with your favorite spices. Bake in oven 30-40 minutes, stirring occasionally, until crisp and golden brown. Remove the shells and enjoy!





# Supermarket Botany



## Introduction

In the book "What's in the Garden?" the reader is introduced to twelve different vegetables and fruits. In this activity, students make shopping lists and find the veggies and fruits at a food market, fruit and veggie stand or at the supermarket.

## Materials Needed

- ◆ A copy of "What's in the Garden?"
- ◆ Pens or pencils
- ◆ Shopping list (one per child)

## Key Concepts

- ◆ Unifying concepts and processes through evidence, models and explanation
- ◆ Understandings about scientific inquiry
- ◆ Characteristics of organisms, organisms and environment
- ◆ Humans depend on environments

## Procedure

1. Read the book, as students guess the fruit or vegetable in the rhyme, before turning the page to see what it is.
2. Discuss the different plant parts mentioned in the book. Students have learned from reading the book, how they look in a garden and how they grow.
3. Pass out shopping lists, and ask students to write the names of the fruits and vegetables in the book, as you go through the book again.
4. Tell them they are scientists that study plant life. Explain that the word "botany" is the branch of biology that deals with plant life.
5. Ask them to go to a supermarket with a grown up and examine the twelve fruits and vegetables in the book, now that they are out of the garden. Check them off on the shopping list after making notes about them: Where could they be found in the store? How were they displayed? Were there different kinds? (e.g. Carrots often come in a small ready to eat size, as well as large carrots in a bag. There are usually three or four kinds of lettuce. How many did they see?)
5. Students bring shopping lists back to class and share their discoveries.

Ask:

- In what kind of store or market did the student do his/her study?
- Was it a huge store like a Walmart, or was it a small grocery store?
- Was there an organic section in the store? What does "organic" mean?
- Did anyone go to a farmer's market or vegetable stand?
- Was the produce grown locally?
- Pick one of the fruits or vegetables and tell how you think it was shipped to the market.
- Can it be frozen or canned?



## Additional Resources

- <http://www.choosemyplate.gov/>
- [www.edibleschoolyard.org](http://www.edibleschoolyard.org)

## Nature Connections

- Bring in to class some of the vegetables and fruits that can easily be handled. (Apple, Carrot, Broccoli, Celery, Tomato, Cucumber, Onion, Potato, Corn, and small Pumpkin.)
- Put them in a big bag or a covered cardboard box with a hole for a "Feely" game. Students guess and describe what they are feeling.
- Is it smooth, bumpy, long, round, etc?



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