



## Ag Literacy Program 2014 Lesson Plans

Maryland Agricultural Education Foundation, Inc.



**What's in the Garden?** by Marianne Berkes

Dawn Publications 2013

### Book Summary:

Good food doesn't come from a box on a grocery store shelf. Good food comes from a farm or garden bursting with life, color, sounds, smells, sunshine, moisture, birds, and bees! Healthy foods become much more interesting when children know their origin. **What's in a Garden?** shares a variety of rhyming riddles about healthy, tasty fruits and vegetables. Also, included and sometime hidden are some of the pollinators and pests in a garden. **What's in a Garden?** also provides a kid-friendly recipe for each fruit and vegetable.

### Useful Props:

Depending on the time of the year, any fresh garden items that are mentioned in the book would make good visuals to use before, during, and after reading the book. Those mentioned are apples, lettuce, carrots, broccoli, blueberries, celery, tomatoes, cucumbers, onions, potatoes, corn, and pumpkins.



If possible, try to show students some of the various types of each item. For instance, if mom only buys bagged mini carrots, students may not know what a large carrot with its leafy top leaves really looks like. To expand student knowledge, consider sharing some of the varieties of apples - colors, lettuce - shapes/ colors, tomatoes - shapes/ colors, cucumbers - seeds/ seedless, onions - sizes and colors, and potatoes - sizes/ colors.

### Vocabulary:

- Nutritious – providing nourishment to a high degree
- Crop- any plant whose product is harvested by a human at some point in its growth cycle
- Munching – to chew food with visible jaw movements and sometimes a crunching noise
- Stalk – the supportive part of a plant
- Versatile – able to be used in many ways
- Bulb – an underground plant storage part from which a new plant grows
- Vine – a plant that supports itself by climbing or creeping along a surface
- Pollination – transfer of pollen from the male part of a plant to the female part to fertilize it
- Pollinator – an animal or insect that transfers pollen grains

**Introduction:** Begin the session by introducing the word **AGRICULTURE**. Ask, "What do you think this word means?" Accept answers and guide toward the following definition. (Write on the board)

### Agriculture

**agri** (means land)    **culture** (means to grow)    SO...

**agri + culture** = growing plants or raising livestock (farm animals) on the land

What are some animals that are raised on a farm? *Accept suggestions.*

What plants might a farmer grow? *Accept suggestions.*

Do you or anyone you know grow any fruits or vegetables in a home garden?

## Sharing the book What's in the Garden?



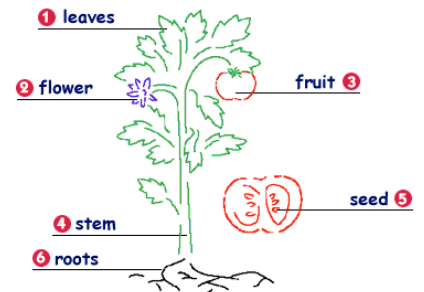
Explain that today's book is written in the form of riddles. Have students number their papers from 1-12 or use the **What's in the Garden?** riddle worksheet (#1) provided. After the volunteer reads each riddle page, students write down their guess. Turn to the next page for the answer. If students are correct, they put a check next to the answer. They can also check whether or not they have ever eaten the vegetable or fruit mentioned. Following the reading of the book, students can create their own riddle about a fruit or vegetable not mentioned in the book and share it with the class.

**Additional sharing the book options:** *Select one or more as time permits.*

1. **Sort the Vegetables** – Run a copy of the **Sort the Vegetables** worksheet (#2) for each student or pair of students. Review each picture and the color of each vegetable with students. Remember that some students may never have seen/eaten the vegetable or know what it looks like in its natural state. Students color and cut apart the pictures and then sort them any way they wish. (Some may sort according to color, ones they eat, part of the plant, etc.) Have them share their “sort” with a partner and see if the partner can guess how they sorted. There is no right or wrong way.

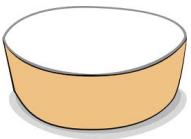
2. **Parts of a Plant We Eat**

Draw a simple plant diagram on the board and label each part –leaves, flower, fruit, stem, seed, and roots. Following the “sorting” activity have students discuss the various foods on the **Sort the Vegetables** worksheet and decide which parts we eat - leaves, flower, fruit, stem, seed, and roots.



3. **Can You Make Your Own Plant Parts Salad?**

Provide each student with the **Can You Make Your Own Plant's Part Salad?** worksheet (#3) or have them draw a large salad bowl on a piece of paper. Students use the veggies cut out from the “**Sort the Vegetables**” sheet (or draw their own) to make a salad that contains each of the following plant parts: stem, leaf, flower, fruit, seeds, and root. Students label each vegetable with the plant part's name.



4. **Pollinators Needed** (*see information sheet #4*)

About 75% of the food we eat depends upon pollination. In addition to the foods the book mentions that grow in the garden, many of the pages have birds and/or insects on them. Some of these creatures are pollinators and very beneficial while others are pests. Share the book a second time with the students having them identify some of the animals/insects on each page. Share how some of them are beneficial and others are pests. See the Pollinators/Pests page for additional



information. You do not need to share all, just highlight some such as worms, ladybugs, aphids, and bees.

#### 5. **Be a Rainbow Eater!**



Students are encouraged to eat a variety of different colored fruits and vegetables. Using the **Be a Rainbow Eater!** worksheet (#5) provided, students color in the rainbow according to the directions and then fill in the spaces with as many fruits and vegetables as they can think of that come in that color. Names can be repeated such as apples for red, yellow, and green. Younger children can be shown a color and then suggest which fruits and vegetables come in that color.

#### 6. **Is It a Fruit or a Vegetable?**

This activity is probably best used with grades 3 and 4. Using the **Is It a Fruit or Vegetable?** worksheet (#6), students first sort the pictures according to what they think. Then provide the following information and have them resort the pictures so that the sort matches each of the following descriptions.

*Botanically, a fruit is the part of a plant that develops from a flower and produces seeds. Many plant parts we eat and call vegetables are really "fruits".*

##### **Sort One – Part of the Plant**

- A true vegetable is the food product that comes from any part of the plant other than the flower. So, roots such as carrots and radishes, and leaves such as cabbage and lettuce, are true vegetables. If you cut produce open and it contains seeds inside such as a tomato, squash, or cucumber – then it is a fruit. If there are no seeds – then it is a vegetable.

##### **Sort Two – When It Is Eaten**

- Sometimes we call produce a fruit or vegetable by the time the item is to be eaten. Vegetables are usually thought to be eaten with the main meal, while fruits, which may be sweeter, may be eaten as a dessert.

##### **Sort Three – Annual or Perennial**

- A third way of deciding whether produce is a fruit or vegetable is by examining how and where it is grown. Vegetables are usually annuals (they live one season and need to be replanted each year) and they are planted in rows in a field. Fruits, on the other hand, are grown and produced over many years (they are perennials and grow from one year to the next) and may be found on bushes, vines, or trees.

There are exceptions to this way of classification. The classification of these fruits and vegetables may cause some disagreement; but, there is one thing that is always agreed upon – they contain many healthy vitamins and minerals – and should be eaten every day!

Ask students which way they think is the best way to classify fruits and vegetables and encourage them to be able to support their decision.

#### 7. **Taste Test Party – if permitted by school**

Nothing culminates a lesson better than eating! If the teacher approves, bring in a sampling of veggies and dips for the students to enjoy. This can be as simple or as elaborate as you want.

### Closure

1. Review with students the meaning of the word **AGRICULTURE**.
2. Where can we get our fruits and vegetables? (farm, Farmers' Market, grocery store, our own garden)
3. Why is it important to eat lots of fruits and vegetables? (keeps us healthy with vitamins and minerals they provide)



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