# Harvesting Your Edible Garden

## Lesson One: Harvesting Your Edible Garden
For September or beginning of school year

“Harvesting Your Edible Garden” is based on lessons from GROWING IN THE GARDEN, LOCAL FOODS AND HEALTHY LIVING, Iowa State University Extension and Outreach and “The Color of Harvest: A Comparative Tasting Lesson” from GOT VEGGIES?, Wisconsin Department of Public Health.

It’s time to harvest summer crops. How do you know when crops are at their peak for flavor and texture? What is the best way to harvest them and keep their flavor? Students compare vegetables based on taste and colors.

### Content objectives:
Apply harvesting and cleaning processes for garden produce; develop descriptive vocabulary for specific characteristics of food; collect and analyze data.

### Life Skill objectives:
Healthy living, Critical thinking, Communication, Citizenship, Leadership, Decision making, Problem solving, Cooperation

### Core and STEM concepts and skills:
- **Science**: Science as inquiry, Earth and space, Life science
- **Math**: Operations and algebraic thinking, Geometry, Measurement, Data
- **Language Arts**: Speaking, Listening, Writing, Viewing, Vocabulary
- **Social Studies**: Behavioral sciences

### Healthy snack:
Colorful fruits and vegetables in season (and from your garden) for the comparison taste testing.

### Additional and supporting resources:
None for this lesson.
# Lesson Plans for 2012-13 School Year, Grade 3

**August/September: Harvest**

<table>
<thead>
<tr>
<th>Table of Contents</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lesson Plan Outline</td>
<td>1</td>
</tr>
<tr>
<td>School Garden Harvesting Guide</td>
<td>4</td>
</tr>
<tr>
<td>Food Safety Tips for School Gardens</td>
<td>8</td>
</tr>
<tr>
<td>Harvesting and Storing Vegetables</td>
<td>10</td>
</tr>
<tr>
<td>Harvest Sampling Ideas and Recipes</td>
<td>14</td>
</tr>
<tr>
<td>Student Garden Journal</td>
<td>18</td>
</tr>
</tbody>
</table>

Lesson Part One: Harvesting Your Edible Garden (you will develop)

Lesson Part Two: The Color of Harvest from Got Veggies! Wisconsin Dept. of Health 19

**Notes:** The **bolded items** in the following lists can be found in the Educational Toolkit, [www.peoplesgarden.wsu.edu](http://www.peoplesgarden.wsu.edu) Grade 3, August/September: Harvest. The Core standards for this lesson are identified in the Educational Toolkit chart. Master gardeners, local vegetable growers, garden and nutrition experts – including students’ family members, and other classroom partners and volunteers are good resources to help to deliver this harvest lesson.

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BEFORE THE LESSON
Do you have produce to harvest? If so, great! All of the following items will help you harvest, clean, store and prepare the garden produce according to university experts.

If your garden has been sleeping through the summer, we recommend that you take a field trip or bring in garden produce from a local farmer’s market, produce stand, or grocery store. Do item 1, skip 2 and 3, and continue through the rest of the items starting with item 4.

1. Grade 3, August/September: Harvest
Continue to view or download these resources from the www.peoplesgarden.wsu.edu Educational Toolkit.

Food Safety Tips for School Gardens, excerpted from United States Department of Agriculture
Harvesting and Storing Vegetables, Iowa State University Extension and Outreach
Please read and use these resources as guides to tell you when and how to harvest the crops from your school garden. If the students and their families have a garden or would like to start a garden, you may copy these resources to send home with the students.

3. Student Garden Records or Student Garden Journals
Check with the students’ grade 2 teachers or garden helpers and after-school or summer program leaders to continue to use any existing garden journals or records. If none are available, please use the ones that are attached to this lesson.

4. Harvest Sampling Ideas and Recipes
Select a recipe based on what you have harvested in the garden or brought in from a local farmer’s market, produce stand, or grocery store. Be sure to have the students help to wash the produce and prepare it. You may want to host a Harvest Party and invite parents and garden helpers to taste some of the crops from your garden.

5. Growing Vegetable Soup by Lois Ehlert
The lesson includes this book or a similar one about growing and eating vegetables. You can also find these books at the library or purchase them online.

THE LESSONS
1. Harvesting Your Edible Garden is a lesson that you will design, using the resources listed in item 2 - 4 above. In the resources, find the crops that the students will be harvesting. Use the information to organize and guide the students to look for the crops that are ready to be harvested and help them to harvest them using the most appropriate methods described in the resources. Be sure to record information about the crops you harvested on a Student Garden Record or Student Garden Journal.

2. “The Color of Harvest: A Comparative Tasting Lesson” from Got Veggies?, Wisconsin Department of Public Health utilizes the garden produce you harvested and possibly some additional vegetables that will add variety to the color, taste, texture, and nutritional value of the lesson. Please use the Tasting Chart found at the end of the lesson. You can fill out the chart
based on a classroom discussion or the students can fill them out individually. You may want to save some of your produce to have a harvest party. If you have trouble finding the book, you can choose to do that later.

3. Harvest Party is another activity you can customize. Who do you want to invite to your Harvest Party? What recipe or fresh vegetables do you want to prepare and serve? Do you want to read a book, sing a song, share stories, give garden tours to your guests? You may want to refer to some of the activities that the students did when they were in second grade.

**AFTER THE LESSON**
Consider expanding the lesson throughout the harvest season. One idea is to do the “Run the Rainbow Challenge: Hot Potato” from [www.agclassroom.org/rainbow](http://www.agclassroom.org/rainbow).
Harvesting is one of the nicest chores of the season. If you follow a few important, but easy tips, you will get the most of your crops. Some crops (e.g. carrots) only provide one harvest, while other crops (e.g. lettuce) can provide multiple harvests. If possible, harvest early in the morning, after the dew dries, but before the heat of the day.

**LEAFY GREENS – Lettuce & the Brassica Family** *(including Spinach, Kale, Chard, Collards, Asian Greens, Mustards)*

To harvest at peak flavor and freshness, harvest young greens when they are just a few inches long. At this stage all greens are tender and delicious eaten raw in a salad. These are called “baby greens”. Pick the largest, outside, leaves first while leaving the smaller and younger inside leaves for harvesting in a week or two. If possible, eat your greens the same day you pick them. Larger leaves, 6-12” long, are less tender and are best for cooking. Remember that greens cook down; plan about 6 cups of greens for 4 usual servings. Always wash garden greens carefully before eating or cooking to remove dirt and small insects.

*Tip*: Snip (with scissors or skilled fingers) the greens about ½-1” above the base of the plant to encourage new growth. Harvesting this way will allow you to get 3-5 cuttings of lettuce and spinach and even more from kale, chard and other hardier greens.

*Note on Lettuce*: If you planted head lettuce and prefer to harvest an entire head, wait until the entire lettuce plant is about softball - melon size and looks like the shape of head lettuce, as you know it. Don’t wait too long though - Growing head lettuce rather than harvesting baby greens often allows more time for pests and diseases to attack the crop.

**LEGUMES – Peas, Snow Peas, Beans**

Harvest peas with 2 hands, holding the vine with one hand while snipping the entire pod off the vine with your other hand. Harvest when fully mature, about 2” long for peas and 4” long for beans, depending on the variety planted. Harvesting encourages new growth, so be sure to pick off over-ripe pods you may have missed earlier on. Continue to harvest from the same vines as the legume ripens.

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**Simple Greens Recipe**

- Wash and dry greens and cut larger leaves into pieces about 3 inches long.
- Heat a bit of olive oil in pan with a clove of chopped garlic or a few tablespoons of chopped onion. Cook 2-3 minutes.
- Add greens and a dash of water. You may keep the greens plain or drizzle with a dash of soy sauce or balsamic vinegar.
  Cook 3-4 minutes until softened.
- Remove from heat, place into bowl. Sprinkle with slivered almonds, sunflowers seeds and dried cranberries, or chives chopped chives from your garden.
  Serve cold or warm.
Peas and young beans can be eaten raw, added to salads, or lightly steamed or sautéed.

**Cucumbers & Squash (Cucurbit Family)**

Harvest cucumbers as they ripen to the desired size. For pickling, fruits should be 4 to 5 inches long, for eating fresh; most varieties grow to 7-8 inches long. Cucumbers will develop a bitter taste if they are allowed to over-ripen. (Note: Some varieties such as European or Dutch cucumbers can grow much longer. This is another reason why clear labeling of the plants in the ground is useful.)

To ensure cucumber vines continue to produce heavily all season long, it’s best to harvest daily to prevent them from becoming overgrown.

Enjoy cucumbers raw, in a salad or try making some pickles! For easy and safe refrigerator pickle recipes, contact your local Cooperative Extension office.

Even though huge zucchini squash are impressive, they will be more flavorful if they are picked when they are smaller.

**Tip:** Use a sharp knife or pair of scissors when harvesting, and leave a short length of stem on each fruit.

**Roots—Carrot, Beets, Radish, Potato**

It can be difficult to determine if root crops are full grown and ready to harvest because they grow underneath the soil. You may recall, most seed packets will tell you how many “Days to Harvest”. This is the number of days it takes from planting to harvesting. If you can keep track of when you planted the seeds (maybe you wrote it down in the garden journal or it’s listed on the label that next to the plant in the ground), you’ll know about when they are ready. That said visual clues are always helpful. Roots start to lift themselves up out of the ground a bit as they develop. You’ll see radishes, beets and carrots creep a bit (< 1/4 inch) above the soil giving you a clue about how wide they are getting.

Did you know?

Beet greens are edible and incredibly nutritious. You can harvest a few from each plant when small and add them to salads, or wait until you harvest the root and cook them up like you do kale, chard or other greens.

**Tip:** Radishes and beets are easy to pull out of the ground whole. Carrots often break off, leaving half of that sweet orange snack for the worms. To harvest them whole, use a digging fork to loosen the soil around the root and pull it out at the base of the greens. For radishes and beets, grab the plant right at the base of the stem, loosen the root a bit by rocking it back and forth, and then pull. If the whole thing does not come up, gently use a digging fork as you would for carrots.

For potatoes, you can start gently digging for new potatoes once the plants start to bloom. Wash and cook new potatoes immediately, as they do not store well at all. If you are planning to harvest potatoes to store for a while, wait until the tops of the plants start to yellow and die back. Then gently dig around the perimeter of the plant and dig up the tubers. If you are}

8/6/2012
planning on storing them, don't wash them! Let them sit out in a cool place for a few days to cure, then gently rub off any dirt, and store in a cool, dark place.

**FRUITS – Strawberries, Tomatoes, Peppers, Eggplant**
Similar to cucurbits, fruits like to be harvested when ripe and harvesting regularly encourages new production. Use a scissors or be very careful to snip eggplant and peppers from the stem without damaging the fruit. Leaving a small stem on the harvested fruit will help keep it ripe and ensure you don’t bruise it when harvested. Carefully pick tomatoes from the plant. For strawberries, grasp the stem just above the berry between the forefinger and the thumbnail and pull with a slight twisting motion. Carefully place the fruit into your containers.

**HERBS – Basil, parsley, mint, cilantro, oregano, rosemary, tarragon, sage, chives, lavender, thyme & more.**
Herbs are grown for their leaves, flower, roots or seed. Most commonly, culinary herbs are grown for their leaves and should be harvested before they flower. Flowering can cause the foliage to develop a bitter flavor. For example, while chives are quite attractive in bloom – and their flowers are edible and delicious – the stems tend to become tough and woody after bloom. Some general guidelines for harvesting herbs:

- **Begin harvesting the herb when the plant has steadily been producing new growth.** Harvesting generates the plant to continue to produce. Just be sure to leave enough leaves so the plant can continue to photosynthesize. Don’t be afraid to harvest. Up to 75% of the current season's growth can be harvested at one time!

- **Harvest herbs before flowering, otherwise, leaf production declines because the plant will put its energy towards flowering and producing seed to reproduce. **Tip: Pick off flowers buds as you notice them develop.

- **‘Annual’ herbs (basil, cilantro, chives) will have to be planted each year. They have soft stems and can be harvested until frost.** Perennial herbs (rosemary, lavender) have somewhat woody stems and can be clipped until about one month before the frost date.
“Healthy Gardens, Healthy Youth”
People’s Garden School Pilot Project

The Extension Partnership including:
Washington State University Extension
Cornell University Cooperative Extension
Iowa State University Extension and Outreach
University of Arkansas Extension

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8/6/2012
Food Safety Tips for School Gardens

Growing and Harvesting Produce
A school garden provides an opportunity for children and volunteers to learn about how to handle food safely. The following are some food safety tips to follow when growing and harvesting produce.

- Ensure that all persons, including staff, students, and volunteers receive basic food and gardening safety training instructions according to local health regulations. The following topics are recommended:
  - Handwashing and personal hygiene
  - Cleaning and sanitizing garden equipment and containers used to hold produce
  - Handling produce during harvest, washing, and transportation
  - Glove use
- Ensure that volunteers are covered by the school district insurance policy in the event of accident or injury.
- Require signed permission slips for all student gardeners. Permission slips should list potential hazards of working in a school garden and identify any allergies the child may have.
- Do not allow anyone to work in the garden while sick, or until 24 hours after symptoms, such as vomiting or diarrhea, have subsided.
- Ensure that all harvesters wash hands thoroughly in warm, soapy water for at least 10 to 15 seconds, and then rinse with potable water. Ensure that all open cuts or wounds on hands, arms, or legs are properly covered prior to participating in the harvest.
- Require harvesters to wear closed-toed shoes to prevent cuts, stings, or other injuries.
- Consider using single-use disposable gloves when harvesting, or handling, fresh produce as an extra precaution.
- Harvest the garden regularly and remove any rotten produce.
Food Safety Tips for School Gardens, continued

- Use cleaned and sanitized food grade containers, such as plastic bins or buckets, to hold harvested produce. Do not use garbage bags, garbage cans, and any container that originally held chemicals. These types of containers are made from materials that are not intended for food use.
- Clean harvesting tools, such as knives, scissors, etc., with soap and potable water immediately before and after each gardening session.

Using School Garden Produce in your School Meal Program
- Check with your local health department to ensure that local regulations permit food from gardens to be served as part of school meals.
- If the harvest from the school garden will be used in the school meals program, the school garden coordinator should work cooperatively with the school nutrition director to plan and implement the garden.
- Discuss food safety practices in the garden with school garden coordinators. Consider asking gardeners to document their practices. Use the information in this document as a guide to identify appropriate practices.
- Accept produce harvested from school gardens only when school nutrition staff is present to receive it. All produce dropped off or left when staff is not present should not be used in the school meal programs.
- See Best Practices: Handling Fresh Produce in Schools for guidelines on receiving, storage, preparation, and service of fresh produce in schools.
- Reject produce that does not meet school nutrition program standards.
- Receive and inspect produce harvested from school gardens according to the same procedures used to inspect produce from the district’s distributors.
- Do not use any produce that has been noticeably contaminated by animals or insects.
- Refrigerate garden produce immediately, unless the particular item is normally held at room temperature.
- Store, prepare, and serve school garden produce separately from other sources of produce to maintain traceability.
- Document service of school garden produce on the menu management/food production record. See Ensuring Traceability of Fresh Produce for more information.
- Ensure that liability for a potential foodborne illness caused by produce grown in school gardens is covered by your school district.
## Harvesting and Storing Vegetables

*(Adapted from ISU Extension Publication, PM 731 Harvesting and Storing Vegetables)*

<table>
<thead>
<tr>
<th>Crop Harvest Guide</th>
<th>Harvest Times</th>
<th>Optimum Storage Conditions, °F</th>
<th>Approx. Storage Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Snap Beans (bush or pole)</strong>&lt;br&gt;Harvest the pods when they are almost full-sized but before the seeds begin to bulge. Hand pick with small stem attached to the pod. Do not break pod.</td>
<td>Pick often to keep plants producing more beans.</td>
<td>Cool Refrigerate: 40 - 45°</td>
<td>7 – 10 days</td>
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<tr>
<td><strong>Beets</strong>&lt;br&gt;Pull or dig beets when roots are 1 to 1½ inches in diameter. Cut tops to ½ inch above root.</td>
<td>One time harvest. Clean garden area after all beets are harvested.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>4 months</td>
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<tr>
<td><strong>Broccoli</strong>&lt;br&gt;Cut when flower heads are blue-green and about 6 to 7 inches across but before small yellow flower buds start to open. The stems below the flower head and small leaves are also very nutritious.</td>
<td>Tender side shoots, 1 to 3 inches across, will develop after the central head is removed. After those are harvested, remove the plants from the garden.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>10 – 14 days</td>
</tr>
<tr>
<td><strong>Cabbage</strong>&lt;br&gt;Cut when heads become large and solid. Don’t delay because heads are prone to cracking when they get large.</td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>1 to 2 months</td>
</tr>
<tr>
<td><strong>Cantaloupe (Muskmelon)</strong>&lt;br&gt;The skin between the netting turns from green to orangish-yellow. The fruit will separate easily from the stem.</td>
<td>One plant can produce 2 to 5 fruit, not all at once. Check often once they start to mature.</td>
<td>Cool Refrigerate: 40 - 45°</td>
<td>1 to 2 weeks</td>
</tr>
<tr>
<td><strong>Carrots</strong>&lt;br&gt;Dig when roots are ¾ inch or more across. Be careful so that you don’t break the roots when digging. Remove tops to ½ inch above the root.</td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>3 or more months</td>
</tr>
<tr>
<td>CROP HARVEST GUIDE</td>
<td>HARVEST TIMES</td>
<td>OPTIMUM STORAGE CONDITIONS, °F</td>
<td>APPROX. STORAGE PERIOD</td>
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<tr>
<td><strong>CUCUMBERS</strong></td>
<td>Check plants often once they start bearing. Keep fruit harvested for continuous production.</td>
<td>Moderate Refrigerate: 45 - 55°F</td>
<td>1 to 2 weeks</td>
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<td></td>
<td>Check plants often once they start bearing. Keep fruit harvested for continuous production.</td>
<td>Moderate Refrigerate: 45 - 55°F</td>
<td>1 week</td>
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<tr>
<td><strong>Eggplant</strong></td>
<td>Check plants often once they start bearing. Keep fruit harvested for continuous production.</td>
<td>Moderate Refrigerate: 45 - 55°F</td>
<td>1 week</td>
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<tr>
<td><strong>Garlic</strong></td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°F</td>
<td>Up to 6 months</td>
</tr>
<tr>
<td><strong>Kohlrabi</strong></td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°F</td>
<td>Up to 2 months</td>
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<tr>
<td><strong>Lettuce</strong></td>
<td>Cut and it will come back for one or two more harvests, then remove spent plants.</td>
<td>Cold Refrigerate: 32 - 40°F</td>
<td>1 to 2 weeks</td>
</tr>
<tr>
<td><strong>Onions (green)</strong></td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°F</td>
<td>2 to 3 weeks</td>
</tr>
</tbody>
</table>
## Harvesting and Storing Vegetables, Continued

(Adapted from ISU Extension Publication, PM 731 Harvesting and Storing Vegetables)

<table>
<thead>
<tr>
<th>Crop Harvest Guide</th>
<th>Harvest Times</th>
<th>Optimum Storage Conditions, °F</th>
<th>Approx. Storage Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Onions (dry)</strong></td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold (after curing) Refrigerate: 32 - 40°</td>
<td>3 months (use before they sprout)</td>
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<tr>
<td><strong>Peas</strong></td>
<td>Check plants often once they start producing seed pods. Keep pods harvested for extended production.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>1 to 2 weeks</td>
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<tr>
<td><strong>Peppers</strong></td>
<td>Check plants often once they start bearing. Keep fruit harvested for continuous production.</td>
<td>Moderate Refrigerate: 45 - 55°</td>
<td>2 to 3 weeks</td>
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<tr>
<td><strong>Potatoes</strong></td>
<td>One time harvest. Cure potatoes in a cool shady location for two weeks. Clean garden area after harvest.</td>
<td>Cool Refrigerate: 40 - 45°</td>
<td>New potatoes only store for a few weeks. Large, cured potatoes can be stored in a dark location for 3 or more months</td>
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<tr>
<td><strong>Radishes</strong></td>
<td>One time harvest. Clean garden area after harvest.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>3 weeks</td>
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<tr>
<td>CROP HARVEST GUIDE</td>
<td>HARVEST TIMES</td>
<td>OPTIMUM STORAGE CONDITIONS, °F</td>
<td>APPROX. STORAGE PERIOD in raw or fresh state</td>
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<td>-----------------------------</td>
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<tr>
<td>SPINACH</td>
<td>Cut and it will come back for one or two more harvests, then remove spent plants.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>1 to 2 weeks</td>
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<tr>
<td>SUMMER SQUASH (Zucchini)</td>
<td>Check plants often once they start bearing. Keep fruit harvested for continuous production.</td>
<td>Cool Refrigerate: 40 - 45°</td>
<td>1 to 2 weeks</td>
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<tr>
<td>SWEET CORN</td>
<td>Check frequently when they reach maturity. Harvest all at once or within a few days.</td>
<td>Cold Refrigerate: 32 - 40°</td>
<td>1 week</td>
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<tr>
<td>SWEET POTATOES</td>
<td>Harvest all at once. Cure for 1 week in a warm, shady location.</td>
<td>Moderate Refrigerate: 45 - 55°</td>
<td>3 or more months</td>
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<tr>
<td>TOMATOES</td>
<td>Check plants often once they start bearing.</td>
<td>Cool room 55 - 65°</td>
<td>4 to 7 days</td>
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<tr>
<td>WATERMELON</td>
<td>Check plants often once they start bearing.</td>
<td>Moderate to cool room 45 - 65°</td>
<td>2 to 3 weeks</td>
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</tbody>
</table>
HARVEST

SAMPLING IDEAS

AND RECIPES

TEACHER’S NOTES: The activities in this section are flexible depending on the harvesting that needs to be done and the food sampling ideas and recipes you choose to do. You may have other sampling ideas or recipes you would like to do. You can use these ideas and recipes throughout your garden and nutrition program.

HARVESTING

Use the following guidelines to harvest your garden:

- Harvesting and Storing Vegetables chart
- Harvest Rules
- Garden Journal
**SAMPLING IDEAS AND RECIPES**

Continue to use the Harvest Rules to prepare food. Select the sampling ideas and recipes that best suit your situation. The students should help to wash and prepare the food. They can use plastic knives and plastic plates.

1. **Garden Fresh!**
   Sample the garden produce in its raw form as soon after it has been picked and washed as possible. That is when it is at its peak of flavor and texture. The students can wash it, if necessary – cut or slice it using plastic knives and plates, and taste it.

2. **Jazz Up Garden Fresh**
   Squeeze Ranch dressing in the bottom of a 3 ounce paper cup (one per student) then add sticks or strips of carrots, zucchini, yellow squash, cucumber, sweet peppers, and so on. Or, put samples of fresh garden produce on a small plate (one per student) and have the students make faces out of them before they eat them.

3. **Revealing Taste Tests**
   In his book, All New Square Foot Gardening Cookbook, Mel Bartholomew (the founder of the square foot gardening method) offers these great taste comparison tests for kids.

   - **Taste Test for Green Beans and Snow Peas**
     - Have the students rinse off and eat one of the green beans or snow peas right after they picked it in the garden. Ask the students to describe the taste and texture.
     - Have them put a green bean or snow pea on their clean desk or counter and in an hour, wash it and eat it. Ask the students to describe the taste and texture and compare it to the one they ate right after they picked it.
     - Put enough green beans or peas in the refrigerator for a day or two before having the students wash and eat them. Ask the students to describe the taste and texture and compare it to the other two they ate.
     - Discuss which one tasted the best and possible reasons why. Fruits and vegetables start deteriorating right after they are picked. They may lose some of their flavoring and texture. You will also get a variation of flavor and texture depending on the degree of maturity of each green bean or snow pea. Most vegetables taste the sweetest and have their best texture when they are at just the right stage between unripe and too ripe.
     - Encourage the students to do this taste test with their families.

   - **Taste Test for Broccoli, Cauliflower and Other Crispy Vegetables**
     Do a blind taste test with the students tasting a fresh bite of a crispy vegetable straight from their garden and another bite from the same vegetable bought at the grocery store. Ask the students which bite is crisper and tastes more like the “outdoors”, and which would they rather eat? After the discussion, reveal which vegetable was from the garden and which one was from the store.

   - **Taste Test for Different Varieties of the Same Vegetable**
     Do a taste test with different types of lettuce, peppers, tomatoes, and so on to see which one you like the best. Record the information for reference when you plan your next garden.
4. **Spin and Toss Salad**

   For fun lettuce and spinach salads, wash the leaves and put them in a clean pillow case. Then spin dry the leaves by holding the closed end of the pillow case and twirling it around. You may want to use a rubber band to secure the open end of the pillow case. You can also add fresh radishes, carrots, onions, snow peas or any other fresh salad ingredient to the pillow case and toss a great salad. Thanks to Cornell University and the Ithaca Children’s Garden in New York for this lively idea.

5. **Cucumber Water**

   Flavored water is very popular and refreshing. The commercial waters have vitamins added. You can make your own by washing and thinly slicing cucumbers to put in each glass of cold water. After drinking the water, eat the cucumber. During other sessions, you might want to try lemon or lime slices in your water.

6. **Veggie Sandwich**

   Cut thin slices of garden produce to make radish, cucumber, zucchini, tomato or other garden veggie sandwiches. Use sliced bread, a soft flavored cream cheese spread (usually sold in a tub), and slices of one or multiple kinds of veggies to make open-faced (one slice) or traditional (two slices) sandwiches. Cut the sandwich diagonally into fourths to make “veggie sandwich tips”. This has been a great way to introduce new vegetables to young gardeners.

7. **Summer Garden Salsa**

   This has been a favorite recipe for thousands of youth participating in Iowa State University Extension and Outreach’s Growing in the Garden program. All but the last three ingredients can easily be grown in a summer garden. Tomatillos are fun to grow and have been easy to purchase at the grocery store. They add a fun flavor to the recipe and are unique because they look like a little green tomato growing inside a husk. However, if you can’t find them, you can simply leave them out of the recipe.

   ![Summer Garden Salsa](image)

   In a large bowl, combine all of the ingredients. Stir together until well blended. Cover and chill for 30 minutes or more before serving. Keeps up to 4 days in the refrigerator. Makes about 2 cups.
8. **RAITA**

*Raita is a popular vegetable dip in schools in the state of Washington. Thanks to Washington State University Extension for sharing this recipe.*

RAITA

1 cup plain yogurt  
½ cup cucumber, peeled and grated  
½ teaspoon salt  
1 clove of garlic, finely minced

Finely mince the garlic and mix with yogurt and salt. Let it sit as you peel and grate the cucumber. Add cucumber to yogurt mixture. Serves four groups of five students with ¼ cup of dip. Serve with sliced vegetables of your choice.

9. **Sharing Ideas and Recipes**

Maybe the youth and adult gardeners and partners at your site have some great tasting or recipe ideas they would like to share. Or, you can search for fun recipes on the Internet. Offer them the opportunity and cook up something new! Then share the ideas and recipes with other gardeners through the internet, in the newspaper, or through one-on-one communications via email, phone, or letters.

10. **Share the Harvest**

Do you have extra garden vegetables and fruits? Send them home with the young gardeners. It is very helpful to also send washing and storing information and serving tips. Explore other ways to share your garden harvest such as food pantries, summer meal programs, senior centers, other families, etc. The students can come up with the ideas and then check to make sure those places will accept garden produce.
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<td>What I ate from the garden:</td>
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<td>What I learned:</td>
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Lesson Overview

This comparative harvesting, cooking, and eating activity is a fun way to familiarize students with a variety of fruits and vegetables using color as the distinguishing characteristic. Eating a variety of colors is important as this gives our bodies a wide range of valuable nutrients—like fiber, folate, potassium, and vitamins A and C. For this lesson, you will want to harvest an assortment of seasonal foods from your garden and compare their colors and other characteristics. The lesson is suited for the garden or the classroom and if you don’t have enough food in the garden, you can get a colorful variety of fruits and vegetables at a local farmers’ market, farm stand, or grocery store. Students will learn how eating different colors of foods makes us healthy in different ways. They are encouraged to use specific vocabulary to describe color variations between vegetables and fruits. This lesson can be adapted for students of all ages. See some suggestions for different age groups on page 12.

Objectives

Students will:

1. Taste and identify a variety of fruits and vegetables (Nutrition Ed C.4.2, F.4.2)

2. Understand that some plants are sources of food (Ag Ed D.4.1; Nutrition Ed F.4.3)

3. Develop descriptive vocabulary for specific characteristics of food (Lang Arts D.4.1, D.4.2; Nutrition Ed F.4.2)

4. Collect and analyze data – see Review and Vote (Math E.4.1, E.4.3)
Materials

Food:
• Different varieties of vegetables and fruits that represent a spectrum of colors from your garden or local market (e.g., orange: carrots, sweet potatoes, butternut squash, pumpkin; purple: grapes, eggplant, kohlrabi; red: radishes, tomatoes, red peppers, strawberries, raspberries, apples, watermelon; yellow: carrots, corn, potatoes, summer squash; green: collard greens, asparagus, kale, broccoli, peas, zucchini, celery, spinach, cucumbers; white: cauliflower, white potatoes; blue: blueberries).

Supplies:
• Book: Growing Vegetable Soup by Lois Ehlert or other book to stimulate discussion about growing and eating a variety of vegetables and fruits from your garden. For more book suggestions, consult the Booklists on page 58 in the Resources section.
• Knife
• Cutting board
• Plates
• Word Bank (included at end of lesson)
• Tasting Chart (included at end of lesson)

Preparation

1. Prior to lesson, determine which vegetables and fruits you will need to harvest or purchase to demonstrate the variety of colors we eat. Consult the list of suggested vegetables and fruits under the Food heading in the Materials section above. For more ideas, visit Harvest of the Month at www.harvestofthemonth.com or choosemyplate.gov for lists of different fruits and vegetables.

2. Get Growing Vegetable Soup by Lois Ehlert or similar book to stimulate discussion about growing and eating a variety of vegetables and fruits from your garden. For more book suggestions, consult the Booklists on page 58 in the Resources section.

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The garden classroom

A healthy school garden is a critical component of a vibrant nutrition education. Bringing nutrition education from the classroom into the garden setting has a powerful effect on children’s eating habits now and into their future. The Kids’ Garden has provided us at Mendota Elementary School the opportunity to develop our nutritional senses and flourish in the benefits of healthy lifestyle choices. The kids love to eat the vegetables they learn about and are delighted to work hard harvesting, washing and hauling the newly grown treasures.

— Christine Pietruszka, Teacher at Mendota Elementary School, Madison Metropolitan School District
3. Rinse vegetables and fruits before slicing. If possible, slice immediately before tasting to preserve freshness. Avoid putting food in the refrigerator, as it dulls the flavor and changes the texture.

4. Write the name of each vegetable or fruit on a display board or poster to record student descriptions (refer to Tasting Chart at end of lesson).

5. Post Word Bank with adjectives to guide students’ sensory observations (included at end of lesson).

**Procedure**

**Introduction:** Gather students for a discussion or a read-aloud. Use *Growing Vegetable Soup* by Lois Ehlert or similar book to stimulate discussion about growing and eating a variety of vegetables and fruits from your garden.

**You may choose to use some of the following questions to guide your discussion:**

1. Where does food come from?
2. Who has a garden or knows someone with a garden? What do you grow?
3. Who has been to a farm? What did you see there?
4. Can you think of some vegetables that are grown in a garden or on a farm?
5. Can you think of some fruits that are grown in a garden or on a farm?
6. Who has tasted any of these fruits or vegetables before?
7. Which fruits do you like to eat as a snack?
8. Which vegetables do you like to eat as a snack?
9. Do you grow any of these vegetables or fruits with your family?
10. Can you think of a fruit or vegetable that comes in more than one color? For example, tomatoes come in almost every color as well as in many shapes and sizes.
11. What colors and shapes of tomatoes have you seen?
12. How do these different vegetables and fruits help us grow? Why are they good for us to eat? Answer: Fruits and vegetables are good for our bodies, as they are packed with nutrients like vitamins and minerals! For older students, you could explain that fruits and vegetables contain many nutrients including vitamin A and C, potassium, and dietary fiber. There are also some special fruits and vegetables, called the “super green and super orange.” These dark green and orange vegetables are important to eat often because they contain extra amounts of vitamins and minerals. Can you guess which fruits and vegetables growing in your garden are green or orange superheroes? Answer: Super green: bok choy, broccoli, collard greens, mustard greens, romaine lettuce, spinach, kale, watercress, turnip greens, mesclun, and dark green leafy lettuce. Super orange: acorn squash, pumpkin, carrots, sweet potatoes, butternut squash, and hubbard squash.

13. Do you know how many fruits and vegetables you should be eating each day? Answer: The amount we should eat depends on if we are a boy or a girl, how much activity we get each day, and how old we are. Have children try the Fruit and Veggie Calculator at www.fruitsandveggiesmorematters.gov or visit www.fruitsandveggiesmorematters.gov/downloads/Low_Literacy_Brochure.pdf for information on how many fruits and vegetables kids should be eating daily. As their teacher, how many fruits and vegetables should you be eating? Compare the recommended amounts for adults and kids.

Following the introduction, review proper hand washing procedures and discuss why they are important. Have students wash their hands. Prepare selected fruits and vegetables for tasting.

**Observation:** Write names of selected fruits and vegetables on the display board or poster paper, or for older students, hand out Tasting Charts (see example on page 13). Explain to students that they will be acting as “investigators” and will be using their senses to observe, describe, and compare different fruits and vegetables. Before tasting, pass around each vegetable or fruit so students can observe the appearance, texture, scent, etc.
**Tasting:** Give each student a slice of vegetable or fruit. Encourage them to taste it. Tell students that you don’t expect everyone to like it, but it is important to try new vegetables and fruits because they may develop a taste for them over time. Have them observe and describe it using words from the Word Bank. Encourage students to use their own words, which can be added to the Word Bank for future sensory observation activities. Record student descriptions on the display board or have them write them on their Tasting Chart. Repeat these steps with each different vegetable or fruit. Encourage your students to use specific and descriptive vocabulary.

**Review and Vote:** Briefly review and compare vegetable and fruit descriptions. Have students vote for their favorite variety. This could be an opportunity for a math connection. Count the votes and create a graph or chart to represent the results. Discuss voting results and reasons why students chose one fruit or vegetable over others.

**Clean-up:** Have students help with clean-up and wash their hands. If possible, vegetable and fruit scraps can go to a compost pile or worm bin.

**Individualized to Age Groups**

For **Younger Children (K to 2nd grade):** During observations have students draw a picture of one of the vegetable or fruit varieties. Or cut vegetable shapes out of paper and write their descriptive words on the vegetable. Another fun activity is to have each student offer one descriptive word and combine them to make a collective poem about a selected vegetable or fruit.

For **Older Children (3rd to 5th grade):** Use the attached Tasting Chart for students to record their own observations. Students may choose adjectives from the Word Bank or use their own describing words. You may also have students write a paragraph or poem describing their favorite vegetable or fruit. Cut fruit or vegetable shapes out of paper and have students write their poems on them. Glue all the poems to one large piece of paper or poster board.

**Lesson Variation: Comparative Heirloom Vegetable or Fruit Tasting:** Hone your students’ taste buds and observation skills by repeating this lesson with heirloom varieties of just one vegetable or fruit. For example, harvest or purchase four different heirloom varieties of tomatoes or apples. Heirloom varieties of certain vegetables and fruits—such as tomatoes and apples—vary greatly in appearance, texture, and flavor, making them well suited for comparison.
Additional Activities

Give students a list of foods being grown in the garden or found at their local market. Have them work with a parent/caregiver to find a word describing a characteristic of each food on the list. Encourage the parent/caregiver to offer one or more of these foods at meals or snacks.

Fruit and Vegetable Challenge: Keep track of how many fruits and vegetables you eat for a week.

Compare food in different forms. Make some garden salsa and compare it to raw tomatoes, tomato soup, ketchup, or sun-dried tomatoes. Compare raw apples with unsweetened applesauce and dried apples. Ask students how they think apples are turned into applesauce or dried apples.

Word Bank

sweet sour flavorful earthy
yummy sharp squishy zesty
grand healthy zippy mealy
delicious ripe tasty firm
fragrant ripe acidic crunchy
bitter tangy delectable tough

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<th>TASTING CHART</th>
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<tr>
<td>Name of Fruit or Vegetable</td>
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<td>— V. Ione Machen, Garden Educator, Community GroundWorks at Troy Gardens</td>
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It’s so inspiring to watch the garden transform so many kids over the course of a season! Kids who arrive to the garden saying they “don’t like vegetables” will be begging for seconds of freshly picked carrots just a few weeks later. They start to love the adventure of trying new things, and they start teaching each other about how crunchy kohlrabi is or how to wrap a cherry tomato in a cabbage leaf. The garden is the first place where a lot of the kids have the chance to develop a positive, respectful relationship with both food and nature, and I’ve seen the pride in their faces when they show off what they’ve grown to their teachers and peers.