



LESSON PLANS FOR 2011-12 SCHOOL YEAR Grade 2

Maintaining a Healthy Garden

Lesson eight: How do we help the plants to grow in the garden?

“Salad Garden” from GROWING IN THE GARDEN, Iowa State University Extension and Outreach

What do you do in the garden while the plants grow? What can you expect from the seeds, sets, and transplants you planted? These activities will help students water the garden, tend to the weeds, and respect the growing plants. Any of the books from the Additional Resources list (below) will help the students to visualize what they will be doing to take care of their garden.

Content objectives: Understand and apply strategies to water and maintain a garden;
Describe garden crops; Determine and organize garden maintenance tasks; Learn about and prepare and eat a garden crop

Life skill objectives: Critical thinking, Decision making, Problem solving, Communication, Citizenship (sharing responsibilities to improve something), Leadership (teamwork)

Core and STEM concepts and skills:

Science Earth and space, Life science, Science as inquiry
Language Arts Reading, Sequencing, Interpreting, Inferring, Listening, Speaking, Viewing

Healthy snack: Pick a Veggie for a tasting

Additional and supporting resources:

Singing in Our Garden (CD), “Give Plants a Chance” by the Banana Slug String Band from www.bananaslugstringband.com, *Jacks Garden* by Henry Cole, *The Little Red Hen* by Paul Galdone, *Eddies Garden and How to Make Things Grow* by Sarah Garland, *Vegetable Garden* by Douglas Florian, *Tops and Bottoms* by Janet Stevens





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BEFORE THE LESSON

1. **Grade 2, Lesson 8:**

This document contains all the curriculum items and resources you need for this lesson. All lesson downloads are located on the www.peoplesgarden.wsu.edu Educational Toolkit.

2. Secure a copy of *Singing in Our Garden* (CD), “Give Plants a Chance” by the Banana Slug String Band from www.bananaslugstringband.com.
3. Check materials list for complete description of items needed.
4. Assemble necessary ingredients and materials for the selected recipe(s).

THE LESSON

1. **‘Know Your Crops’ and ‘Working Together in the Garden’ Activities from Salad Garden** can be taught over two or more days.
2. Water the garden.

AFTER THE LESSON

Optional activities are included in the lesson plan for a making murals and singing. Additional books to consider include *Jacks Garden* by Henry Cole, *The Little Red Hen* by Paul Galdone, *Eddies Garden and How to Make Things Grow* by Sarah Garland, *Vegetable Garden* by Douglas Florian, *Tops and Bottoms* by Janet Stevens. Check with your library or purchase online.

RECIPE

Try different greens, such as different types of lettuce, kale, chard, collard, mustard. Offer a variety of dressings such as Ranch or Thousand Island, or consider having the children help make their own.



Salad Garden

GARDEN 2

LINKS TO THE CLASSROOM

Outdoor classrooms such as school gardens open up a fun new world full of discovering and learning. Outdoor classroom experiences are apply/expand activities that students can do and enjoy for the rest of their lives. School gardening helps students to:

- Learn life skills such as critical thinking, decision making, problem solving, healthy lifestyle choices, communication, cooperation, responsibility, respect, service learning, learning to learn, patience, and others;
- Gain knowledge and experience and increase interest in science, health, math, social studies, language arts, and the arts;
- Apply their learner types and challenge them to try new ones such as bodily-kinesthetic, spatial-visual, logical-mathematical, linguistic-words, intrapersonal, interpersonal, music, and natural (*Howard Gardener's multiple intelligences*);
- Increase vegetable and fruit consumption and physical activity;
- Grow healthy, fresh food for themselves, their families, others, or as a business;
- Identify hobbies or potential career interests;
- Set goals, plan, implement and evaluate activities;
- Identify local resources and partners to accomplish goals;
- Work as partners with caring adults to learn new skills and accomplish goals.

Corresponding lessons from Growing in the Garden:

- General Unit, Lesson 2: Gardeners and Farmers
- General Unit, Lesson 3: My Special Garden
- General Unit, Lesson 4: A Dream Garden
- General Unit, Lesson 5: What's My Hobby or Business?
- Natural Resources Unit: Lesson 1, Sun, Soil, Water and Light
- Natural Resources Unit: Lesson 3, Get the Scoop on Soil
- Natural Resources Unit: Lesson 4, Be Loyal to the Soil
- Plants Unit, Lesson 1: Start with Seeds
- Plants Unit, Lesson 2: Plant Parts Become Me

CORRESPONDING LESSONS continued on next page



CORRESPONDING LESSONS*continued*

- Animals Unit, Lesson 1: Life in the Garden
- Food Unit, Lesson 1: Pathways to My Pyramid
- Food Unit, Lesson 2: My Pyramid Hop 'n Shop
- Food Unit, Lesson 3: Garden of Good Eatin'
- Food Unit, Lesson 5: When is it ready to eat?
- Food Unit, Lesson 6: Building Food Mazes
- Food Unit, Lesson 7: Emergency Food Pantry

GETTING THE GARDEN GOING AND GROWING

For the success of your salad garden project, it is important to have the support of students, school staff, groundskeepers, administrators, parents, and a network of volunteers. Your local ISU Extension office may be able to find volunteers to help teach gardening and assist with maintaining the garden throughout the summer. These volunteers may be ISU Extension Master Gardeners, garden club members, or public garden education coordinators. Consider involving older students, 4-H'ers, parents, neighbors, and city parks and recreation program participants. Parents and "friends of the garden" can donate plants from their own gardens. The garden can be planted in the spring, and early season crops such as lettuce, spinach and radishes can be enjoyed before classes dismiss for the summer. When the students return in the fall, they will find a bounty of tasty tomatoes, peppers, cucumbers and other seasonal vegetables.



GARDEN NOTE: *PREVIOUS FALL.* Work with school maintenance to determine a location for a salad garden. The site should be well-drained, close to a water source, and in a sunny spot. The area designated for this garden should be at least 12' x 22'. Kill the existing turfgrass by rototilling or by spraying with a nonselective herbicide such as Roundup®. After spraying, wait at least 1 week before tilling.

If this is done in EARLY SPRING, wait until the grass is growing and then spray with a non-selective herbicide. Wait at least 1 week before tilling.

SUGGESTED CROPS AND PLANTING TIMES

Crop	Method	Planting time	Inches between plants	Inches between rows
Lettuce	Direct-seed	Mid-April through mid-May	1	12
Spinach	Direct-seed	Mid-April through mid-May	1	12
Radishes	Direct-seed	Mid-April through mid-May	1	12
Carrots	Direct-seed	Mid-April through mid-May	1-2	12
Onions	Set or transplant	Mid-April through mid-May	4	12
Broccoli	Transplant	Mid-April through mid-May	18	24
Cucumbers	Direct-seed	After threat of frost is past	24-36	24-36
Tomatoes (cherry and standard)	Transplant	After threat of frost is past	36	36
Peppers	Transplant	After threat of frost is past	24	24
Sunflowers	Direct-seed	Early May	8	24
Potatoes	Seed pieces	Early-April through early-May	24	24

MAINTAINING

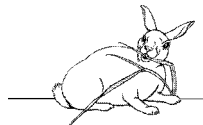
WHILE THE PLANTS GROW

ONGOING ACTIVITY



GARDEN NOTE: Water the garden right after you plant it and then weekly unless it rains at least an inch. Water it deeply and thoroughly while the plants are young and during the dry periods in the summer. Keep weeds under control in and around the garden. Have the students put a 1-inch layer of grass clippings around the plants to conserve soil moisture and reduce weed growth. Additional mulch layers should be added throughout the summer as the early mulch will decompose.

Scout for insects and diseases on the plants. A good resource for pest management is Iowa State University Extension publication pm-230, Insect and Disease Management in the Vegetable Garden. It is available at your local Extension office or you can order it on the website at: www.extension.iastate.edu/store.



Deer and rabbits are a problem for many gardeners. A 2-foot-tall chicken wire fence around the garden that is buried a couple inches in the soil will prevent rabbit damage. Children should be able to step over the fence. A 4-foot-high or more fence may be needed to keep deer out of your garden. There are commercial repellants on the market, but all are not effective. Your class may want to experiment with different types of deer repellents.

Students, parents, teachers, ISU Extension Master Gardeners, 4-H Clover Kids groups or 4-H clubs, other organizations, neighbors, or friends of the garden can help maintain it through the summer.

KNOW YOUR CROPS GAME

ACTIVITY 5

MATERIALS - 3" x 5" or 4" x 6" note cards

- Markers
- Chalkboard, marker board or 2 large sheets of paper
- *Growing in the Garden: Outdoor Classrooms for Young Gardeners, Leader's Guide* (4H 905BLDR) and *Garden Journal* (4H 905B) by Iowa State University Extension 4-H Youth Development (*optional*)

After the garden has been planted and while you are waiting for it to grow, play the "KNOW YOUR CROPS" game to help the students remember specific things about the crops in the salad garden.

Write the name of each crop you planted in the middle of separate note cards. Write the following questions on the board or a large sheet of paper.

1. Is it a cool-season or warm-season crop?
2. Is it planted as a seed, set, transplant or seed piece?
3. Do we eat the roots, stems, leaves or flowers?

Divide the class into two teams and have them come up with team names. Write the team names on the board or another large sheet of paper. Assign a scorekeeper who will keep track of the team scores with tally marks on the board.

RULES

1. Decide which team will start.
2. Hold up a card so that the students can see the crop name.
3. The team that starts, Team One, must answer question one from the board. If the students get the answer right, they get one point and can move on to question two. If they answer that correctly, they get another point and can move on to the third question. If they answer it correctly, they get one point for getting the question right and a bonus point if they answered all three questions correctly. If they miss the first question, they do not get any points and Team Two has a chance to answer it. If the students on Team Two answer it right, they get one point. Team One has the chance to answer the second question; if the students get it right, they go on to the third question. If they answer it incorrectly, Team Two has a chance to answer it and score. Team One has the chance to answer the third question. If the students miss it, Team Two can answer it correctly for one point.
4. After all the questions have been answered for the first crop, go to the crop on the next card. Team Two has first chance at answering these questions correctly and getting the bonus point. If they miss a question, it goes back to Team One to answer. Continue the sequence of questions until you have gone through all the crops in the garden.
5. Add the scores and determine the winning team.

For another activity on seeds and transplants, refer to "Get Ready, Get Set, GROW!" in Growing in the Garden: Outdoor Classrooms for Young Gardeners (4H-905BLDR) and the activity sheet in The Garden Journal (4H-905B).

WORKING TOGETHER IN THE GARDEN

ACTIVITY 6

- MATERIALS** - Choose one or more of the following books about gardening tasks throughout the season:
- The Little Red Hen* by Paul Galdone
 - Jack's Garden* by Henry Cole
 - Eddie's Garden and How to Make Things Grow* by Sarah Garland
 - Vegetable Garden* by Douglas Florian
 - Tops and Bottoms* by Janet Stevens
- Marker board or large sheet of paper
 - 3" x 5" or 4" x 6" note cards (*one per student*)
 - Marker

While you wait for the garden to grow, you may want to read one or more of the suggested garden books. From the books, list the gardening steps on a large sheet of paper or marker board and compare them to what needs to happen in your garden. Discuss what happened in the stories when people didn't help out in the garden. Compare that with what might happen to your garden if everyone doesn't help out.

Have the students identify tasks in your garden, especially for the day that you are reading the books. Write each task on a separate card. The students should draw a card to see what task they are responsible for. Make several weeding cards such as "weeding around the lettuce," "weeding around the tomatoes," etc. You may want to make several watering cards as well. There should be one card per student. Mix the cards up and have each student draw one. Ask them if they know what they are to do and what would happen if they didn't do their part.

OPTIONAL ACTIVITIES AS THE GARDEN GROWS

ACTIVITY 7

OPTION 1: PAINT LIKE CLAUDE MONET

*Try painting like artist Claude Monet. Have the students relax and observe their garden as they paint "impressionistic" pictures of it. You may use watercolor or tempera paints and paper. Use lap boards, empty notebook binders, or clipboards for firm surfaces and go to the garden to paint. (See *Growing in the Garden, People Unit, Lesson 2, Claude Monet: Connecting Nature and Art.*)*

OPTION 2: CREATE A DREAM GARDEN MURAL

*Create a new Dream Garden Mural. Use one long piece of butcher paper or several large pieces of paper and colorful markers. Have everyone draw their favorite thing outdoors or in a garden. Talk about what features you could actually put in a garden. (See *Growing in the Garden, General Unit, Lesson 4, A Dream Garden.*)*

OPTION 3: SINGING IN THE GARDEN

*Sing the plant parts songs from *Growing in the Garden, Plants Unit, Lesson 2, Plant Parts Become Me*. One song is "Flowers, Leaves, Stems and Roots" instead of "Head, Shoulders, Knees and Toes." The other song is on the bottom of the "Roots, Stems, Leaves, Flowers" activity sheet. Then go to your garden plants and identify the parts.*

