

Lesson # 3

Project: 4-H School Enrichment Educational Series

Project Manual: Science-Horticulture

Grades: 4th -6th

Learning Activity: planting and watering plants

Track: Science - Horticulture

Life Skills: Decision Making, Planning and Organization

Character Focus: Responsibility - Gardeners are responsible for following important steps for planting and watering plants.

Project Skills: Planting and watering plants

Louisiana Content Standards Benchmarks and Grade Level Expectations:

ELA-4-M5 Participating in a variety of roles in group discussions 5th grade 40. Evaluate media for various purposes, including: effectiveness of organization and presentation; usefulness and relevance of information

ELA-4-M2 Giving and following directions/procedures 5th Grade 34. Follow procedures (e.g., read, question, write a response, form groups) from detailed oral instructions

Time Allotted: 35-45 minutes

Number of Participants: small or large groups

Key Concepts:

1. Using correct methods for planting and tools will prepare soil for successful planting.
2. Preparing soil and watering plants when they are put into the soil are important steps for the survival of plants.

Objective:

1. Participants will identify 3 garden tools that can be used to work with soil and plants.
2. Participants will demonstrate good procedures for preparing soil for growing plants in the ground or in pots.

Getting Ready:

1. Speak with a school official to determine if there is an area already used or that can be used to make a garden for experiencing the nutrition and gardening lessons. If no area is available, then plan to do all planting in pots. Participants could then give potted plants to teachers for special occasions or to homebound or hospitalized senior citizens.
2. Familiarize yourself with all the background information provided.
3. Read the lesson thoroughly, and get a clear understanding of the activities. Read the *Planting a Garden* handout, Resource Sheet #1, p. 5 of this lesson plan.
4. Gather supplies needed. To avoid cost, contact local garden centers or farmers for the materials needed: soil, plants and tools.

What You Need for the Lesson:

1. Review Safety of Garden tools from Lesson 1, Handouts # 1 and # 3.
2. 10-15 pairs of goggles, 10-15 pairs of gloves (depends on how many participants attend the meeting), tools such as shovels, hoes and rakes.
3. Bags of soil or an area of soil already available at the 4-H meeting site for planting.
4. Plants or seeds for planting. Visit a local home/garden center or local hardware store that might donate soil and plants.
5. Small pots if there is no soil area available for planting at the 4-H meeting site.



LESSON PLAN:

What You Say:	What You Show or Do:	What Participants Do:
<p>1. Today we will work with soil and plants. Let’s review the safety rules for working with garden tools that we learned in the previous lesson. Can someone share two rules or tips to ensure safety when gardening? (See Garden Safety Rules and Garden Tool Pictures in Lesson #1 of this gardening series.) Let’s also go over the names of tools we will use today for our work. Can someone name a tool we will need today? (Possible answers: shovels, hoes, rakes, etc.) As we work together, the first and most important thing is to practice safety with the tools and with each other.</p> <p>2. Those were all great responses. We will work in pairs (possibly 3’s, depending on the number of participants) and assist one another in preparing the soil for planting. Each of you will need to work together to practice and learn how to use the tools correctly.</p> <p>(Experience)</p> <p>3. As we work in groups, each of you will take turns with gloves and tools (if there aren’t enough for everyone) to prepare the soil and then plant the plants in a spot. Watch as I demonstrate how to work the soil with the tools and then plant the plants. (At this point the soil being worked is either on the ground or in pots.)</p>	<p>1. Ask questions and elicit responses from the group. Allow time for responses and discussions.</p> <p>2. Direct participants to go outside or to an area to work with soil. Items needed: tools, soil, gloves, goggles, etc. per small group.</p> <p>3. Demonstrate working the soil with different tools and then planting. Provide enough materials so that all participants have the opportunity to work with the soil and plants. Walk around and offer assistance as needed.</p>	<p>1. Give several answers to the questions asked. Respond and discuss.</p> <p>2. Form groups and hand out items to each with directions of where to work. Assist one another in preparing the soil for planting.</p> <p>3. Work in groups, wear appropriate gloves, use tools, work with the soil and set plants in the ground or pots</p>

What You Say:	What You Show or Do:	What Participants Do:
<p>(Share)</p> <p>4. What did you do to prepare your soil? How did it feel to work with soil? What was the easiest task—preparing the soil or planting the plant in the soil? What were some decisions you had to make to do this activity?</p> <p>(Process)</p> <p>5. What did you learn about preparing soil? Why is it important to know how to place a plant in the soil?</p> <p>6. Now that the plants are in soil, we must provide them with moisture. Using a water hose is easy, but there are a few things we need to remember: light running water is needed, not a full flow of water; water nozzles can be used as long as they provide a very light spray to the plant. A watering can is also a good idea for watering plants.</p> <p>7. Now that we've completed our planting and watering, we need to clean our tools. Remember we learned at our last lesson that after tools are used, they need to be cleaned. This will provide for longer use of your tools. (Handout # 2, Lesson #1, "Cleaning Garden Tools") We will work in the same groups now and clean our tools.</p> <p>(Generalize)</p> <p>8. What did you learn about your gardening skills? Where can you go to get information you might need?</p>	<p>4. Allow time for responses and discussion.</p> <p>5. Allow time for responses and discussion.</p> <p>6. Demonstrate watering in a way that is available and appropriate for the plants. Allow participants to help water all plants.</p> <p>7. Provide the participants with materials for cleaning each tool. Most of the tools will only need spraying with a water hose to get the dirt off them. If the tools need to be dried, provide old towels or newspaper for drying them.</p> <p>8. Allow time for responses and discussion.</p>	<p>4. Respond and discuss.</p> <p>5. Respond and discuss.</p> <p>6. Watch as watering is demonstrated and water the in appropriate way.</p> <p>7. Each small group will take part in cleaning and drying tools used to work the soil and plants.</p> <p>8. Respond and discuss.</p>

What You Say:	What You Show or Do:	What Participants Do:
<p>(Possible answers: Parish or Cooperative Extension Office, listed in your local phone book, commercial nurseries, internet websites—those that provide gardening help, my 4-H agent, a person in my neighborhood who enjoys gardening.)</p> <p>(Apply)</p> <p>9. You have done a great job! How can what you learned today help you? (Possible answers: Knowing how to plant things can help in providing food and plants for my home and others.)</p> <p>What will you do to use what you have learned? (Possible answers: Plant a garden in my back yard, Plant other plants in pots and share them with my neighbors, learn more about how plants grow.)</p> <p>It is your responsibility to learn correct procedures for preparing the soil and planting a seed or plant if you expect to have a good garden or a plant that will survive and grow. Sharing what you have learned is a great way to help someone else become a successful gardener.</p>	<p>9. Allow time for discussion and responses.</p>	<p>9. Discuss and respond.</p>

Ways to Help Members Learn More:

1. Visit a Web site titled [HGTV. Com](http://HGTV.Com) to explore plants appropriate for different regions, different tools, caring for tools and what tools are useful for with completing a particular project or task.
2. Contact or visit local merchants or farmers for donations of soil, plants and other materials needed.
3. Contact the LSU AgCenter for specific plants that should be used for the region your 4-H participants are from, materials and any other questions you may have.
4. Invite a local farmer or elderly person who is known for planting and maintaining a garden.

Resources

1. **Handouts:** Refer to *Garden Tool Pictures*, *Garden Safety Rules and Cleaning Garden Tools* from the first lesson in this series and *Planting a Garden* from Lesson this lesson, Lesson #3.
2. Contact the office of your LSU AgCenter parish agent or horticulture specialist for information about planting a garden, being a guest speaker for this lesson or demonstrating garden planting techniques.

Web sites to Visit

<http://aggie-horticulture.tamu.edu/nutrition/schoolgardens/startagarden/abcintro.html>

<http://aggie-horticulture.tamu.edu/kindergarden/Child/school/sgintro.htm>

http://www.eecom.net/projects_school_garden.pdf - How to start a school garden

<http://www.scasd.org/radiopark/site/default.asp> - Visit the initiatives section about school gardens

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Planting a Garden

1. Devise a plan to include:

- a. area for planting - contact the school administration to see if there is an area available at the school for use, if not, then consider using pots for the planting
- b. type of plants to be used; consider donations from local farmers, nurseries, or individuals
- c. soil available as needed; if additional soil is needed ask your local Wal Mart manager or other local stores to consider donating the needed materials
- d. tools needed for working the garden - ask parents to volunteer the use of their equipment. Be sure to thank them appropriately when returning the equipment.
- e. choose plants that are appropriate for the area, season and ease of growth

2. Planting Day

- a. Separate participants in groups of 3-4, depending on the type of garden being planted and work to be completely.
- b. Consider assigning jobs to participants to ease the responsibility of all work being done by one participant.
- c. Review safety of tool use as needed.