

Santa Clara County 4-H Youth Development Program  
Level I Horticulture Proficiency  
2007

Date Completed/  
Project Leader  
Initials

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- \_\_\_\_\_ 1. Identify the stem, leaf, and node using a diagram or plant.
- \_\_\_\_\_ 2. Identify two important requirements a plant needs to live.  
Demonstrate how to plant a seed.
- \_\_\_\_\_ 3. Demonstrate basic watering tools, e.g., fan sprinkler, watering wand, watering can. Explain the specific benefits of using these tools and how you might use them.
- \_\_\_\_\_ 4. Explain when to water your plants so that the water doesn't evaporate or cause disease on the leaves.
- \_\_\_\_\_ 5. Name two common weeds and how you would remove them.
- \_\_\_\_\_ 6. Name and describe two garden pests. Explain how you would keep their populations under control? Explain what impact your pest control choice will have, if any, on the environment.
- \_\_\_\_\_ 7. Demonstrate how you would pick a place to put a vegetable garden.
- \_\_\_\_\_ 8. Demonstrate how to prepare a hole and plant a tree at the right depth.
- \_\_\_\_\_ 9. Pick out six vegetables. Describe whether we eat the stem, leaf, root, and/or fruit on each vegetable.
- \_\_\_\_\_ 10. Explain why cactus and houseplants fit into the environments in which they grow. What about their shape, thickness of leaves and size of leaves, makes it easy for them to live?
- \_\_\_\_\_ 11. Demonstrate safety with tools. Explain how you use a hoe in a group and demonstrate how to walk with pruning shears and loppers. Explain the consequences of grabbing a sharp tool from another person.

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- \_\_\_\_\_ 12. Do one of the following:
- a. Plant related demonstration or talk
  - b. Lead a tour of your Horticulture Project
  - c. Represent 4-H for horticulture
  - d. Do a newspaper article about plants
  - e. Promote your Horticulture Project in the ***Timely Topics*** or your local community paper.
- \_\_\_\_\_ 13. Explain what went well in your Horticulture Project, what didn't go well, and what you might do differently next year for your Horticulture Project. Show information in your record book.
- \_\_\_\_\_ 14. Participate in a community service/citizenship activity related to the project; i.e., grow a row, donate to Second Harvest or a food kitchen, plant for aesthetics at a community park, school, nursing home, create a historical garden or support a group maintaining a public area for a day, pick up trash or revitalize an area by planting the area.
- \_\_\_\_\_ 15. Attend any 4-H event outside of your club, (doesn't need to be in Horticulture Project).

Members Name: \_\_\_\_\_ Date: \_\_\_\_\_

Project Leader's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Santa Clara County 4-H Youth Development Program  
Level II Horticulture Proficiency  
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Date Completed/  
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- \_\_\_\_\_ 1. What is an annual, biennial, and perennial?
- \_\_\_\_\_ 2. Explain basics of photosynthesis.
- \_\_\_\_\_ 3. Read a seed packet and explain what the information means, i.e., days to germination, season to plant, distance apart to plant, and how long until plant is flowering or fruiting.
- \_\_\_\_\_ 4. Explain how to transplant a plant.
- \_\_\_\_\_ 5. Explain how to sanitize tools. Explain the uses of pruning shears, loppers and hedge clippers.
- \_\_\_\_\_ 6. Describe and give control measures for three diseases or problem conditions.
- \_\_\_\_\_ 7. Make a seed journal from what you planted or from plants you collected. Mount and label seeds in a book.
- \_\_\_\_\_ 8. From the list below chose one and give example of its importance.
  - a. Wildflowers/ natives
  - b. Trees
  - c. Vegetables/fruits
  - d. Ground cover
- \_\_\_\_\_ 9. Name three pollinators. Explain two ways plants are pollinated.
- \_\_\_\_\_ 10. Explain how herbs are used with foods, include texture, color, smell, and meals in which they could be used.
- \_\_\_\_\_ 11. Visit an established operation and learn how the plants are grown and marketed.
- \_\_\_\_\_ 12. In 4-H record book record expenses and/or income made from plants or chart produce production.
- \_\_\_\_\_ 13. Set up a Horticulture Project display or display your plants outside of your project. (County Fair, farmer's market, Field Day, open house, garden tour.)

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- \_\_\_\_\_ 14. Find a creative art project that can be done with plant material; do it, then teach the craft to the group.
  
- \_\_\_\_\_ 15. Compile a list of garden resources, e.g., addresses of nearby garden centers, seed sources, websites.
  
- \_\_\_\_\_ 16. Help someone by sharing your knowledge or giving away a product from your Horticulture Project to demonstrate positive citizenship.

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Santa Clara County 4-H Youth Development Program  
Level III Horticulture Proficiency  
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Date Completed/  
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- \_\_\_\_\_ 1. Test your soil, then describe how you would replenish the soil with needed nutrients.
- \_\_\_\_\_ 2. Contact a local, state, or national association related to your project and determine what this association has to offer for you.
- \_\_\_\_\_ 3. Describe the destruction of plants by various animals.
- \_\_\_\_\_ 4. Make a record of plant breedings that explains how good selection can improve your stock. Describe self and cross pollination, the advantages and disadvantages, explain differences between hybrid and open-pollinated.
- \_\_\_\_\_ 5. Name the pros and cons of chemical pesticides and explain two organic methods of pest control.
- \_\_\_\_\_ 6. Describe three soil types and what you can do to improve them. Explain what the numbers on the fertilizer bag mean and what N-P-K mean.
- \_\_\_\_\_ 7. Demonstrate a method of IPM weed control and explain how you do it.
- \_\_\_\_\_ 8. Keep a personal garden reference library or make a library resource list that will be helpful to your Horticulture Project.
- \_\_\_\_\_ 9. Describe five things you should consider if you would landscape a yard and why.
- \_\_\_\_\_ 10. Explain how to irrigate the following: container grown plants, lawns, and field crops.
- \_\_\_\_\_ 11. Organize or participate in a personal demonstration or judging contest specific to your Horticulture Project area, i.e., State Field Day.
- \_\_\_\_\_ 12. Report the history of one aspect of your Horticulture Project. (equipment, technique, origin, etc.)

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- \_\_\_\_\_ 13. Keep an account of cash expenses and time spent. At the end of the growing season, compare crop yield to expenses. Complete a record book.
  
- \_\_\_\_\_ 14. Alone or with a group, plan a field trip or activity related to your Horticulture Project.
  
- \_\_\_\_\_ 15. Complete one year as a Junior Leader in any project.
  
- \_\_\_\_\_ 16. Plan a community service/citizenship activity related to the project; ie, grow a row, donate to Second Harvest or a food kitchen, plant for aesthetics at a community park, school, nursing home, create a historical garden or support a group maintaining a public area for a day, pick up trash and revitalize an area by planting new plants.

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Santa Clara County 4-H Youth Development Program  
Level IV Horticulture Proficiency  
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Date Completed/  
Project Leader  
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- \_\_\_\_\_ 1. Complete one year of Junior or Teen Leadership in your Horticulture Project.
- \_\_\_\_\_ 2. Prepare teaching materials for use at Horticulture Project meetings.
- \_\_\_\_\_ 3. Assist younger members in designing and constructing needed equipment.
- \_\_\_\_\_ 4. Be able to make a compost pile that heats up and results in compost.
- \_\_\_\_\_ 5. Be able to identify:
  - a. The leaf margin-toothed, serrated, smooth, and lobed
  - b. The leaf shape- cordate, deltoid, digitate, lanceolate, linear, lobed, obovate, oblong, ovate, palmate, and round
  - c. Venation-pinnate, palmate, and parallel
  - d. Arrangement on stem-alternate, opposite, whorled and compound
- \_\_\_\_\_ 6. Demonstrate how to:
  - a. Deadhead
  - b. Broadcast seed
  - c. Types of propagation-air layering, dividing, leaf cuttings, plantlets(runners), cane(stem) cuttings, softwood/hardwood cutting, tip (ground) layering
- \_\_\_\_\_ 7. Demonstrate grafting techniques. Point out the cambium layer.
- \_\_\_\_\_ 8. Demonstrate how to prune shrubs or trees.
- \_\_\_\_\_ 9. Speak on a Horticulture Project-based subject before an organization other than your 4-H club.
- \_\_\_\_\_ 10. Invite and introduce a guest speaker on Describe five things to consider when inviting, introducing, and thanking a guest speaker. related subject. Describe five things to consider when inviting, introducing, and thanking a guest speaker.

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- \_\_\_\_\_ 11. Be active in Horticulture Project on a County level. (Serve as County Council Project Chairperson, organize a Countywide event in your Horticulture Project).
  
- \_\_\_\_\_ 12. Participate in planning or volunteering at a State Horticulture Contest or Leadership Conference or a Horticultural event in your community.
  
- \_\_\_\_\_ 13. Design or improve some aspect of your 4-H Horticulture Project, e.g., (gardens, irrigation system, equipment, structures, marketing the project, etc.)
  
- \_\_\_\_\_ 14. Take one aspect of your Horticulture Project and submit a copy to the county resources for others to use, e.g., CD, record keeping form.
  
- \_\_\_\_\_ 15. Organize a community service/ citizenship project related to your Horticulture Project.

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