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Guidelines for Starting a Horticultural Therapy Program by Partnering with Volunteers

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THE STATE UNIVERSITY OF NEW JERSEY
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The Art of Horticultural Therapy

Horticultural Therapy (HT) is a process using plants and gardening activities to improve the body, mind, and spirit of people. It is practiced throughout the world in: hospitals; rehabilitation, hospice, and vocational facilities; nursing homes; senior and community centers; schools; and prisons. HT is the use of nature to heal. It is not a new concept, as ancient Egyptian physicians made use of the therapeutic properties of gardens by prescribing walkthrough gardens. Experts continue to observe that most people receive satisfaction from watching a flower or vegetable grow and develop. Plants do not discriminate and they are not judgmental regarding a person's age or abilities. Plants respond to caregivers with rewards of new growth, flowers, or fruits. This success brings a sense of achievement and improves self-esteem. Today, the American Horticultural Therapy Association (AHTA) defines HT as "the engagement of a client in gardening-related activities, facilitated by a trained therapist, to achieve specific treatment goals." AHTA believes that horticultural therapy is an active process, which occurs in the context of an established treatment plan.

Benefits of Horticultural Therapy Programs

HT offers cognitive, social, emotional, and physical benefits. On a cognitive level, horticultural tasks improve memory and attention to detail. Activities such as planting seeds develop skills such as sequencing or following directions. Planting dish gardens and arranging cut flowers allows for one to channel creative and artistic drives. The responsibility of caring for plants brings about social growth. Group HT sessions coordinated by horticultural therapists and volunteers foster the development of friendships. The presence of plants and HT programming improves the quality of life for residents of hospices and other health care facilities, at any stage of life.

This people-plant connection can facilitate physical benefits including muscle retention and improved coordination, balance, and strength. Horticulture-related projects can improve fine motor skills and dexterity. The multitude of colors, shapes, textures, and fragrances of plants used in HT creates a sensory experience that may calm or stimulate. Fragrance can trigger pleasant memories. Plant materials used in HT allow for maximum use of visual, tactile, gustatory and olfactory senses. Bright, bold flower and foliage colors can sometimes be seen by the visually-impaired. Handling potting soil or arranging dried flowers provides tactile experiences,

as does touching a fuzzy leaf or scaly pine cone. Tasting herbs and vegetables grown in a community garden entices taste buds. HT projects such as growing herbs or scented geraniums, making sachets or arranging fresh cut flowers stimulate the sense of smell.

The experience of working with plants may open new career opportunities to clients and volunteers. Young people in rehabilitation settings become aware of rewarding career options in the green industry. HT teaches people with disabilities skills such as propagation, plant maintenance, and floral arranging, all of which are in demand by the horticulture industry. The experience of serving as a volunteer in HT programs has lead people to pursue studies to become professional horticultural therapists.

The Horticultural Therapy Profession

Professional horticultural therapists are specially trained members of rehabilitation teams, which include doctors, psychiatrists, physical and occupational therapists, nurses, job coaches, and others. The American Horticultural Therapy Association (AHTA) has a professional registration program offering credentials as: Horticultural Therapist Assistant (HTA), Registered Horticultural Therapist (HTR), and Horticultural Therapist Master (HTM). The credentials require course work and clinical experience. Several universities and botanical gardens offer certificate, associate, and bachelor degree programs in HT. Contact information on professional certification programs can be found in the Appendix. Rutgers, The State University of New Jersey, is among the universities in the United States offering both a Bachelor of Science and certificate program in HT.

Volunteers Promote Horticultural Therapy

Volunteers can play an important role in acquainting local agencies that serve people with disabilities with horticultural therapy programs. As avid, knowledgeable, trained gardeners they can share their skills with others in a variety of settings, which include: correctional facilities, schools, nursing care facilities, hospitals, hospices, and community centers. The HT volunteers work with people who are elderly, visually impaired, physically and developmentally challenged, incarcerated, youth-at-risk, and other people with needs and interests in plants.

Target audiences for an introductory program are administrators of agencies and health care facilities that serve people with special needs and their staff. Another audience includes people with physical and mental challenges, patients recovering from stroke, and people with cerebral palsy, Alzheimer's disease and senile dementia. Family and friends of HT participants should also be involved to promote the continuation of HT programs at the facility.

The essential element of a HT program is how plants are living things that must be given care. In order to grow, plants require care from clients, agency administrators, and volunteers. This caring extends the emotional growth of clients and volunteers. These interactions not only create a special bond between HT participants and the volunteers, but also provide motivation to promote HT in the community.

Volunteer Training

Volunteers who offer HT programs should have a basic knowledge of horticultural skills such as plant propagation, plant identification, flower arranging, houseplant care, and horticulture crafts. Awareness of cognitive and physical disabilities and their emotional aspects can help volunteers develop communication skills for working with special needs populations. Adaptive tools and gardening techniques for people with special needs should be included in volunteer training. Volunteers with advanced skills such as greenhouse management and garden design act as an excellent resource for agencies that wish to continue to offer HT programs on a larger scale.

There are many opportunities for volunteers to attain these basic skills. Vocational technical schools, community colleges, and adult education programs often offer basic horticulture courses. Another option is state land grant universities Cooperative Extension Master Gardener training programs offered in county Cooperative Extension offices throughout the nation. Many Master Gardener programs provide HT programs in their community.

Volunteers should have basic training in Horticultural Therapy taught by a professional. Contact a local chapter of the AHTA, www.ahta.org, for potential speakers to train volunteers. Horticultural Therapy programs are also offered at several universities and botanical gardens, such as Rutgers, The State University of New Jersey, and the New York, Brooklyn, and Chicago Botanical Gardens. Contact information for these organizations can be found in the Appendix.

The Volunteer Committee Structure

Coordinating a volunteer HT program requires a great deal of communication, preparation, and implementation. The committee structure is an important means of offering a HT program so that many volunteers can be involved with the program without being overwhelmed. A suggested committee structure is to have four chairpersons: an overall head chairperson, agency coordinator, supply coordinator and communications chair. The agency coordinator visits the potential sites and schedules the sessions. The agency coordinator becomes the main contact for facility administrators. The coordinator confirms the program a few weeks prior to the starting date and is the contact for cancellations due to inclement weather. The communications chair provides all committee members with program dates, times, and directions to sites via electronic and postal mail. The information may also be included in the organization newsletters so that any volunteer members may participate. The supply coordinator gathers purchased and donated materials for the sessions and arranges for delivery to the site. The overall chair coordinates the efforts of the HT Committee.

The committee should meet at least once a year to plan session activities and assign responsibilities for gathering supplies. Plans for each session are made by several committee members based on the age, abilities, and needs of the program participants, and the physical space available at the facility.

Chairpersons of the HT committee can recruit new volunteers from the organization by giving a short presentation about the HT activities at meetings and inviting potential volunteers to participate in a HT session at a facility.

"Introduction to Horticultural Therapy"
A HT Volunteer Program In Action

The Rutgers Cooperative Research and Extension (RCRE) of Union County Master Gardeners offer an "Introduction to Horticultural Therapy" program to county agencies that serve populations of youth and adults with special needs. Rutgers Master Gardeners are a group of volunteers who complete an eight-month training program taught by RCRE faculty and staff.

The Rutgers Master Gardeners of Union County offered their first HT program in 1988 at a nursing care facility and continued for three years. The program was very successful and led to the creation of handicapped-accessible gardens at the facility. The Master Gardeners were pleased with the success of the program, but felt that they should expand the program to benefit additional county residents with special needs.

To promote the benefits of HT, the Master Gardeners created the "Introduction to Horticultural Therapy" program in 1991. The Rutgers Master Gardeners offer an eight session HT program to agencies that serve people with disabilities. At each session, Master Gardeners teach clientele horticultural skills and complete a small "hands-on" project.

The program has been offered to 57 agencies, training 150 professionals and reaching over 1,625 people with special needs. These individuals have diagnoses which include Alzheimer's disease, cerebral palsy, dementia, Down's syndrome, stroke, learning and other disabilities. Another population served is children who have special needs.

The program has been effective in capturing the attention of the participants. Program administrators note that attendance at Master Gardener HT programs is higher compared to other recreational programs. In nursing homes and hospitals, patients leave their rooms to join sessions and help each other with projects. They bring their plants back to their rooms, or give them to family and friends as gifts.

As a result of the "Introduction to Horticultural Therapy" program, several sites have planted community gardens; and built handicapped-accessible gardens and renovated greenhouses so that their non-ambulatory clientele can continue to benefit from horticultural activities.

Goals of a Horticultural Therapy Program

Organizations should have goals for their HT program efforts. Goals provide volunteers with direction and offer new volunteers an orientation to the program. Agencies that are benefiting from the program have an understanding of what the expected outcomes of the program are and what their responsibilities are to insure the success of the program.

Suggested goals for an introductory HT program are to:

- Introduce administrators, staff members and clients to horticultural therapy.
- Teach adults and youth with special needs basic horticultural skills such as plant propagation, culture, and flower arranging.
- Provide information on resources available to administrators so that horticultural therapy can become an on-going program.
- Identify funding sources for HT programs.
- Encourage agencies and facilities to employ professional horticultural therapists.
- Encourage volunteers to pursue professional training and registration as Horticultural Therapists.

Goals for an ongoing HT program may be to:

- Teach youth pre-vocational skills such as following directions or staying on task.
- Accomplish occupational and physical therapy goals through HT activities.

- Identify potential careers in the horticulture industry for people with special needs.
- Build self-esteem and confidence by completing projects.
- Provide clientele with opportunities to reconnect with nature.
- Increase socialization skills by offering programs in group settings.

For volunteer programs, goals may be quantitatively measured by recording the number of facilities that have participated in the program and requests for resources; horticultural skill tests; dollar amounts of funding received; number of agencies/facilities that employ HT professionals; and the number of volunteers who pursue continuing education in HT.

Occupational and Physical Therapy professionals can observe the HT program and determine how it can be used to meet a client's goals for rehabilitation. There are many hospitals and rehabilitation centers that have formal record keeping procedures for documenting the effectiveness of therapies and interventions, and these can be used for HT activities as well.

Horticultural Therapy Goals for Participants

Some examples of cognitive goals may include:

- Develop or relearn skills such as sequencing or following directions.
- Develop or relearn problem-solving skills.
- Increase concentration by staying on task for certain amount of time.
- Recall names of plants.
- Size and spatial discrimination.
- Ability to compare and contrast.

Social goals may include:

- Teamwork.
- Sharing.
- Demonstrate cooperation by sharing tools and assisting with clean-up.
- Communicate with volunteers and peers.
- Tolerance and mutual respect.

Physical therapy goals:

- Manipulate small objects such as seeds.
- Increase range of motion by watering plants.
- Touch flowers and other textured plant materials.
- Select flowers to use for projects.
- Use gardening tools.
- Increase eye contact.
- Improve speech.
- Improve motor skills.
- Improve eye-hand coordination.
- Provide moderate exercise.
- Exposure to fresh air in a garden or greenhouse.

Horticultural skill objectives may include:

- Identify plants by name.
- Prepare potting mixes.
- Demonstrate proper watering techniques.
- Propagate plants by taking leaf cuttings.
- Create flower arrangements.
- Explore a new hobby.
- Become aware of career skills.

Site Recruitment

Administrators of schools, health care facilities, and agencies seek ways to offer their physically and mentally challenged clients experiences that promote empowerment and communication skills. Sites for HT programs may be recruited several ways including direct mail, displays at community events, press releases, and networking.

When a HT program is being offered, it is useful to use a direct mail piece. A letter, preferably on organization stationary, explaining the program goals can be mailed to all hospitals, nursing care facilities, nursing homes, senior centers, and agencies in the community. Letters of introduction should include a description of the volunteer agency, any fees associated with the program, and information on how to proceed with the program. The letter should conclude with an offer to meet with the administration to explain the program in more detail. A sample introductory letter can be found on page 8.

Brochures are another effective recruiting method. Once the program is established, the brochure can also include a listing of sites where the program has been offered. Including the list adds credibility to the program. The brochures can be used as direct mail pieces and distributed at community events.

Creative displays about the program with color photographs of participants[1] and samples of completed projects can draw attention to the program. The displays used at community events, such as street and county fairs, can include "hands-on" planting projects for children. The activity attracts families to the display. Many times a display visitor has a friend or family member who uses the services of agencies that serve the elderly or disabled. They share the brochure about the program with agency administrators, who, in turn, contact the volunteer organization to schedule an appointment to learn more about the HT program.

Press releases about the program can stimulate interest in HT and let people know how to become involved with a HT program. Press releases can be directed to community newspapers or special interest newsletters.

"Word-of-mouth" can be a very effective means of recruiting program sites. Administrators and recreation coordinators share their positive experiences with colleagues. This networking among

[1] Signed photo releases must be obtained before using any photos of participants and volunteers.

professionals often leads to HT program requests. Proactive personal meetings with administrators of rehabilitation and nursing care facilities and agencies that serve the special needs population increase awareness of HT and can lead to the establishment of programs.

Scheduling the Horticultural Therapy Program

Once an agency requests the program, volunteer agency staff and a volunteer meet with the administrator or recreation coordinator. The volunteer describes the program activities, number of clientele that can be accommodated, fees, space requirements, and storage needs. The goals of the program are emphasized, particularly the continuation of horticulture programs at the facility.

The time of year the program is offered depends on the goals of the program and the availability of the volunteers. Some volunteer groups may offer the program during the academic year (September – June) in order to avoid conflicts with volunteer and facility staff vacations. Other programs may focus on outdoor gardening and be offered in the spring through fall. Some programs may have sufficient volunteer staff and financial support to offer the program year-round.

Some agencies may require that volunteers have tuberculosis tests and/or criminal background checks. If you will be taking photographs or filming the activities, you must have signed releases for each participant being photographed.

The number of participants that can be accommodated depends on the needs of the participants and the availability of the volunteers. It is suggested to work with smaller groups of no larger than 25 people to facilitate one-on-one interaction with the participants. Depending on the physical needs of the clientele, a ratio of three participants to one volunteer allows for a pleasant socialization experience for both parties. ***Facility staff members must be present at all times*** to offer support for the volunteers and participants, assist with logistics, and respond to medical emergencies.

Some volunteer organizations offer HT programs as a series of eight one-hour sessions held at the same time on a weekly basis. The volunteer agency should try to be flexible with the weekday and time chosen to accommodate the host facility's schedule, such as doctor visits, physical therapy, shopping trips or other recreational activities. However, the day and time chosen should remain consistent for the entire program to facilitate the scheduling of the volunteers.

The administrator provides printed directions to the site and parking instructions. A volunteer may want to develop more detailed driving directions from a common starting point, such as the volunteer organization's headquarters.

The facility provides assistance with the delivery of the program materials on the first and last day of the program. Allow ½ hour for volunteers to arrive at the facility and set up the program. Facility administration should use this time to prepare participants and provide transport to the room where the activity will take place. Administrators must arrange for transport. Larger facilities may need more time for transport, but arrangements should be made so that the program starts as scheduled.

RUTGERS COOPERATIVE EXTENSION
New Jersey Agricultural Experiment Station

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Ms. Jane Smith
Administrator
Geriatrics Center
5 Main Street
Hometown, NJ 07090

Dear Ms. Smith:

The Rutgers Master Gardeners of Union County, a volunteer organization sponsored by Rutgers Cooperative Extension, offer an eight week "Introduction to Horticultural Therapy" program to agencies such as yours that serve people with special needs.

Horticultural Therapy is the use of plants and natural materials to improve the body, mind and spirits of people through simple horticultural activities. We are writing to invite your facility to participate in this program that has been offered at over 60 sites since 1991.

The objective of this program is to introduce your staff and facility residents to horticultural therapy. Staff members will learn how to incorporate horticultural activities into regularly scheduled events. Residents will participate in activities such as repotting plants, propagating houseplants and flower arranging.

There is no charge for this volunteer program. The Master Gardeners provide project materials for each of the eight weekly sessions. The program can accommodate 25 participants. It is not necessary to have a greenhouse or garden to participate in the program.

If you are interested in our "Introduction to Horticultural Therapy" program, a Master Gardener and I are willing to visit your facility to explain the program in more detail and schedule sessions. Please call me at (908) 654-9854 to schedule an appointment or if you have any questions about horticultural therapy.

I look forward to hearing from you.

Sincerely,
Madeline Flahive DiNardo
County Agricultural Agent

Sessions with the participants, including clean-up, generally last one hour. When practical, participants should assist with clean-up. Time for a "wrap-up" discussion of the activity should be included at the end of each activity. Discussion questions could include:

- Did this project interest you?
- Tell me about the plant you are growing.
- How do you feel about the plant you potted up?

A HT program does not require access to a greenhouse or handicapped-accessible garden. Recreation rooms or community areas are often convenient locations for HT activities. It is advantageous to visit the room where the sessions will take place. Preferably, it should have a sink and locked storage area for supplies to use for the program duration. There should be easy access to bathrooms, electricity, and elevators. Groups of tables that clients can comfortably sit at and volunteers can easily walk around are ideal. The facility should supply newspapers or table clothes to cover the tables and aprons, gloves, and hand wipes for the participants. Lighting conditions in the room should also be considered. Bright filtered sunlight with some shaded areas in the room would provide a favorable environment for many houseplants. Plant lights can be used to enhance plant growth.

The administrators are responsible for recruiting program participants. Administrators can promote participation by publicizing the HT session on activity schedules. Personal invitations to the program can be extended by pointing out the new activity to residents and encouraging them to attend. It is important to remind clients the day of each HT session and provide transport to the activity room. Participants can help promote the program by showing their peers the projects they have completed. Reluctant clients can be invited to observe a session. Many times the observation leads to participation.

Preparing a Budget for Volunteer HT Programs

Expenses for an eight-session program, offered to 25 participants at five program sites, would be $700 to $1,000 over a ten month period. Depending on the materials being used, average expenses for 25 participants to complete a small horticulture-related project range from $17.50 - $25.00. Budgets for long-term programs at facilities that maintain greenhouses and/or outdoor gardens will be considerably higher.

Some volunteer agencies may cover program expenses by having plant sales and using the proceeds to purchase supplies for the HT programs. Donations of plants and materials by volunteers and local businesses reduce program expenses. Other volunteer agencies may charge the facilities using their services to cover program and administrative expenses.

Horticultural Therapy Project Supplies

HT projects are created using living plants and other natural materials such as dried and pressed flowers, leaves, pine cones, acorns and other nuts, seeds and rocks. The textures, colors, and scents of these materials can provide a full spectrum sensory experience.

Non-poisonous plants should be used as clientele may have allergies or try to ingest the plants or natural materials. Supplies such as craft glue must be non-toxic. Rooting hormone should not be used for propagation and pesticide use avoided. When purchasing plants, make sure the vendor understands how the plants are being used and the importance of not having any pesticide residue on the foliage or potting media, even though pesticide label re-entry requirements have been met.

Purchasing supplies wholesale in large qualities may be the most cost effective for HT programs that are offered on a regular basis. Check with local garden centers, greenhouses and nurseries for donations of used pots and empty flat trays. The pots and flats should be sterilized in a 1:10 bleach/water solution for 10 minutes and then rinsed before using them for planting. Volunteers may be willing to donate plants or raise cuttings for use in future HT sessions.

Potting soil or mix containing perlite and horticultural-grade vermiculite can be purchased in bulk and stored in more manageable heavy plastic bags or containers for ease of transportation to program sites. Perlite is small white pellets made of a volcanic rock and creates air space in the mix. Vermiculite is expanded mica rock and helps the mix retain moisture. Adding perlite and vermiculite to the soil or mix can help manage problems of over or under-watering by the plant's new caretaker. Proportions of 2 parts potting soil or mix, 1 part perlite and 1 part horticultural-grade vermiculite work well. Potting soils and mixes are safer to work with if they are pre-moistened.[1]

General Program Supplies

- Potting Soil or Mix[2] (moisten before session starts)
- Perlite
- Horticultural Grade Vermiculite
- 4 inch sterilized pots
- Coffee filters (4 to 6 cup size) or plain paper towels (to line pots and sink drains- it allows water to drain, but keeps potting mix in pots or out of drains!)
- Saucers for pots
- Dibble sticks, chop sticks, tongue depressors or Popsicle sticks (for planting)
- Containers to hold potting soil or mix on work tables (dish pans or foil lasagna pans work well)
- Plant labeling items (plant name, date, client's name)
    - Labels
    - Tongue depressors
    - Masking tape
    - Permanent markers
- Lightweight trowels
- Small plastic spoons
- Small watering containers (pint size plastic bottles with small holes drilled in the lid work well)

[1] Dry potting soil or mixes may be dusty and easily inhaled. Pre-moistening the mix prevents this problem. It is also preferable to plant cuttings and plants in moist soil, as dry soil may draw moisture out of the root ball.
[2] Potting soils contain pasteurized soil. Potting mixes do not contain soil. They are peat moss based mix.

- Watering can (for moistening potting soil or mix)
- Sterilized flat trays
- Non-toxic craft glue
- Scissors

Items Facility Should Provide

- Aprons and gloves for participants
- Hand wipes
- Table cover (newspapers or disposable tablecloths)
- Secure storage area for stock supplies
- Staff member to assist with unloading and loading supplies, a dolly or cart
- ***Staff members present at all times!***

Every day items can be adapted for use in horticultural therapy programs. Small plastic water bottles with holes drilled in the lid make watering containers that are easy to handle. Salad bar or corsage containers can be used to create terrariums.

Lining pots with coffee filters or plain paper towels prevents potting mix from escaping through the drainage holes.

Putting pre-moistened potting mix in containers such as foil roasting pans makes it easier for participants to fill their own pots.

Instructions for Horticultural Therapy Projects

PLANT PROJECTS

Potting Annuals

Horticultural Skill Objectives:

- Identify the plant.
- Transplant an annual.
- Demonstrate proper watering technique.

Supplies Needed:

Table cover
Flat of annuals (24 to 48 plants, most are available in the spring, pansies in the early spring and fall)
Small watering containers filled with room temperature water
Potting soil or mix (pre-moistened) (2:1:1 potting soil or mix, perlite, horticultural grade vermiculite)
Container to hold potting soil or mix
Trowels or small plastic spoons
Clean 4-inch pots with drainage holes
Coffee filters
Label items
Saucers for pots

Method:

Cover the work tables and place a container of pre-moistened potting mix on the table. Clients may mix the potting mix with a trowel. Distribute one pot and a coffee filter to each participant. Place the filter in the bottom of the pot. Fill the pot half full with potting soil or mix using the trowel or small plastic spoon.

Remove plants from the flat. Identify the plant and give cultural care information such as light preference (sun, shade) and watering requirements.

Participants should tenderly tease the roots so they are spreading outwards. Place one or three plants in each pot. Add more potting soil/mix if necessary. Gently tamp the soil tightly around the roots. More potting soil/mix can be added if needed.

Water the potted plant using the small water container. The water should drain out the bottom of the pot. Place the pot on the saucer.

Label the container with the plant name, date and the participant's name. Encourage the participant to write the information.

Place the plant in appropriate light conditions and water according to the plant's needs.

Forcing Paper White Narcissus Bulbs

Horticultural Skills Objectives:

- Identify parts of a bulb.
- Demonstrate how to force a bulb to bloom.

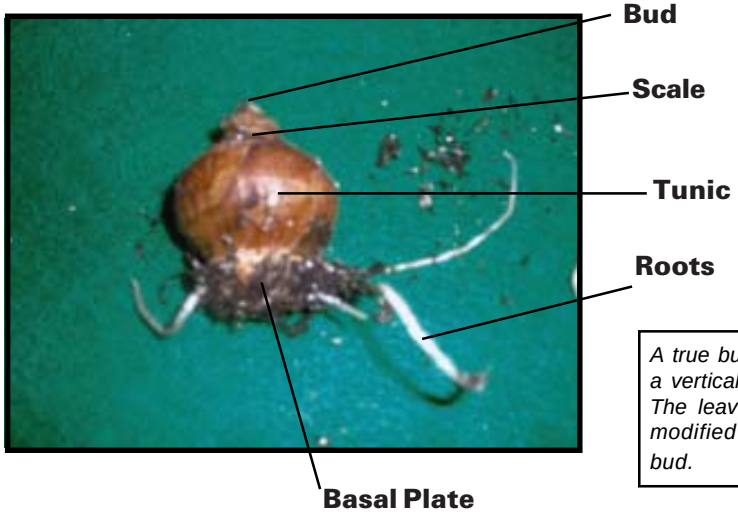
Supplies Needed:

Table cover
Paper White (Narcissus) bulbs[1] (labeled for forcing, available during the fall/holiday season)
Watering container filled with room temperature water
Clean plastic pot or bowl (preferably without drainage hole)
Clean stones or marbles
Label items

Method:

Discuss with the participants the parts of a bulb and how it grows. Discuss how bulbs are grown outdoors and how they can be forced to bloom indoors by providing warmth and sunlight.

Distribute a pot to each participant. If the pot or bowl has a drainage hole, cover it so that water cannot drain out. Fill the pot 2/3 full with clean stone or marbles. Place bulbs, pointed end up, in the stones/ marbles. Leave the pointed top of the bulb exposed.



A true bulb, such as narcissus, is actually a bud! It contains a vertical stem that is surrounded by thick scale like leaves. The leaves store food for the plant. The Scale is a small modified leaf swollen with stored food usually covering the bud.

[1] All parts of the Narcissus plant are poisonous if ingested.

Note the location of the water line. The top pebbles that the bulb will be set into are dry. The roots of the bulb will be submerged in the water.

Narcissus can also be forced to bloom in a 6 inch pot filled with potting mix.

Leaf Cuttings

African Violets (top) and Kalanchoe (bottom) are ideal plants for propagating by leaf cuttings because of their thick, fleshy leaves.

Horticultural Skills Objectives:

- Identify plants.
- Propagate plants by taking leaf cuttings.
- Provide proper care for leaf cuttings.

Supplies Needed:

Table cover
Houseplants suitable for leaf cuttings from home, garden center, or greenhouse. See Appendix list.
(Most houseplants are available year round.)
Clean scissors or small knives
Small water containers filled with room temperature water
Potting soil or mix (pre-moistened) (2:1:1 potting soil or mix, perlite, horticultural grade vermiculite)
Container to hold potting soil or mix
Trowels
Clean, 4 inch pots with drainage holes
Dibble stick, chop stick, tongue depressor, or Popsicle stick
Label items
Saucers for pots
Clear plastic bags (optional)

Method:

Cover the work tables and place a container of potting soil/mix on each table. Discuss the plants that will be propagated, including the cultural care of the mature plant. Plants that propagate well from leaf cuttings usually have thick fleshy leaves. Explain that eventually a small "plantlet" will form at the base of the leaf cutting.

Take leaf cuttings from the plant by pulling or cutting off a mature leaf, keeping the leaf stalk intact. Distribute one pot and saucer to each person. Fill the pot with potting mix. Gently press the potting mix down.

Each participant should get three to five cuttings. Using the dibble stick, chop stick, or tongue depressor, *dibble*[1] the soil. Place a cutting in each hole at a 45 degree angle[2]. Fill the pot with potting mix to about ½ inch from the top. Tamp or tap the soil tightly around the cuttings, and water the soil so it is damp throughout.

Place the pot on the saucer. Label the pot with the plant name, date, and participant's name. Encourage the participants to write their own labels.

The leaf cuttings can be loosely covered with a clear plastic bag, which should be removed after the plantlet has formed. Once the plantlet is about an inch across, the "parent" leaf can be cut away. Place the new plant in an appropriate lighting situation and water according to its needs.

[1] *Dibble:* To use a pointed instrument to make holes for planting seeds or inserting cuttings.

[2] The 45 degree angle will help stabilize the leaf cutting.

Houseplant Stem Cuttings

Horticultural Skills Objectives:

- Identify plants.
- Identify leaf nodes.
- Identify buds.
- Propagate a plant by taking stem cuttings.
- Provide proper care for stem cuttings.

Supplies Needed:

Table cover
Houseplants suitable for stem cuttings from home, garden center or greenhouse. See Appendix list.
(Most houseplants are available year round.)
Clean scissors or small knives
Small water containers filled with room temperature water
Potting soil or mix (pre-moistened) (2:1:1 potting soil or mix, perlite, horticultural grade vermiculite)
Container to hold potting soil or mix
Trowels
Clean, 4 inch pots with drainage holes
Dibble stick, chop stick, tongue depressor, or Popsicle stick
Label items
Saucers for pots
Clear plastic bags (optional)

Method:

Discuss the types of houseplants the cuttings will be taken from including cultural care requirements. Show the participants where the leaf nodes[1] and, if present, flower buds are located.

Cover the work tables and place a container of potting soil/mix on each table. Make a 3 to 5 inch plant cutting from new growth by pinching or using clean scissors or knives. The cutting should have at least 3 nodes. Avoid taking cuttings from flowering stems. If flower buds are present, pinch them off. A clean cut should be made at an angle of 45 degrees just above a node. Making the cut as close as possible to a node will help the plant grow a new tip. Distribute one pot and saucer to each person. Fill the pot halfway with potting mix. Gently press the potting mix down.

Distribute the cuttings and remove any leaves from the bottom of the stem. (Leaves should not be buried in the potting mix.) Each participant should get three to five cuttings. Using the dibble stick, chop stick or tongue depressor, *dibble*[2] the soil; place one or two cuttings in each hole. Fill the pot with potting mix to about ½ inch from the top. Tamp or tap the soil tightly around the cuttings, and water the soil so it is damp throughout.

Place the pot on the saucer. Label the pot with the plant name, date, and participant's name. Encourage the participants to write their own labels.

The planted cuttings can be loosely covered with a clear plastic bag, which should be removed after roots have formed. Check for roots once a week by gently pulling the cutting. Place the pot in a place with good light, not direct sun, and water to prevent the soil from drying out. Once the cuttings have rooted, place in an appropriate lighting situation for the plant and water according to its needs.

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[1] *Node:* The point on a plant where a leaf or side shoot joins the stem. It is often a slightly raised ring of plant issue.
[2] *Dibble:* To use a pointed instrument to make holes for planting seeds or inserting cuttings

Dividing Houseplants

Horticultural Skills Objectives:

- Identify plants.
- Propagate a plant by division.
- Provide proper care for newly divided plants.

Supplies Needed:

Table cover
Houseplants suitable for dividing from home, garden center or greenhouse. See Appendix list.
(Most houseplants are available year round.)
Clean knife (large enough to cut through plant roots)
Small watering containers filled with room temperature water
Potting soil or mix (pre-moistened) (2:1:1 potting soil or mix, perlite, horticultural grade vermiculite)
Container to hold potting soil/mix
Trowels or small plastic spoons
Clean 4-inch pots with drainage holes
Filters
Dibble stick, chop stick tongue depressor, or Popsicle stick
Label items
Saucers for pots

Method:

Cover the work tables. Place a container of potting soil/mix on each table. Distribute one pot, filter and saucer to each person. Place the filter in the pot. Fill about one half the pot with potting soil or mix. Gently press the potting mix down.

Show participants the plant to be divided. Give some cultural information about the plant, especially light and watering requirements. Remove plant from the pot and show participants the root ball.

If possible, break the root ball into several pieces by hand. Each piece should have roots and a stem with several leaves. If the root ball is too big or tight to divide by hand, cut the root ball with a clean knife. Distribute the new "plants." Each participant should get one or three plants, depending on the size of the plant. The pot should be slightly bigger then the root ball.

Place one or three plants in each pot and fill the pot with potting soil or mix to about ½ inch from the top. Tamp the soil tightly around the roots. Add more potting soil or mix if needed. Water until it drains out of the bottom of pot.

Place the pot on the saucer. Label the pot with the plant name, date, and participant's name. Encourage the participants to write their own labels.

Keep the plant in a place with appropriate light and water according to the plant's needs.

Terrarium

Horticultural Skills Objectives:

- Identify plants.
- Arrange a terrarium mini-garden.
- Propagate plants by division.
- Propagate plants by taking leaf cuttings.
- Provide proper care for a terrarium.

Supplies Needed:

Table cover
Plants suitable for terrariums from home, garden center or greenhouse. See Appendix list.
(*Most terrarium plants are available year round)*
Clear plastic container with domed top. (6 X 9 inch corsage boxes or salad bar containers work well)
Small watering containers filled with room temperature water
2:2:1 ratio of Potting soil or mix (pre-moistened), horticultural grade vermiculite and perlite
Container for mixed potting soil/mix
Charcoal
Small clean gravel
Teaspoon
Trowels or small plastic spoons
Dibble sticks, chop sticks, tongue depressors, or Popsicle sticks
Label items (masking tape and permanent marker suggested)
Optional Decorative Items
Small pebbles (variety of colors)
Small pieces of bark
Small figurines
Colored sand

Method:

Cover the work tables. Place the container with the 2:2:1 ratio of potting soil/mix on each table. (Some clientele might be interested in a "hands-on" demonstration of preparing the potting soil mix for terrariums.)

Discuss the plants being used for the terrarium. Separate the plants and cut them to a size of less than three inches. Each piece should have leaves and roots. Single leaves may also be propagated if the stems are large enough to insert into the soil. Place the separated plants and cuttings on the work table.

Distribute a clear plastic container to each participant. Place a teaspoon of charcoal into the container to barely cover the bottom. Add a single layer of clean gravel to the top of the charcoal. The charcoal and gravel help provide drainage, absorb odors and prevent mold and mildew.

Place the potting soil/mix on top of the gravel layer. Fill the bottom half of the opened container with the potting soil/mix. The potting mix/soil will eventually settle. Make a small hole in the potting soil/mix for each plant using the dibble stick, chop stick, tongue depressor, or Popsicle stick. Insert a plant or cutting in each hole.

Water lightly so the potting mix is uniformly moist, but not soaking wet. *Optional:* Decorate the terrarium with the colored sand, pebbles, bark and small figurines.

Close the container. Label the terrarium with the date and participant's name. Using masking tape on the bottom front of the terrarium is suggested for a label. Encourage the participants to write their own labels.

Terrarium Care:

Place the terrarium in a well lighted window, but not full direct sunlight. Water sparingly, only when there is no visible moisture and the soil feels dry. Uncover the terrarium for one day each month.

Insert cuttings into the hole that was created with the dibble stick. Gently press the potting mix around the cutting.

Decorative stones and mini-figurines personalize the terrarium.

Kitchen Recyclables

Horticultural Skills Objectives:

- Identify plants.
- Propagate a plant by rooting it in water.

Sweet potatoes may eventually be planted in a garden.

Supplies Needed:

Table cover
Root/stem vegetables that will root in water. See Appendix list.
Clear plastic container for "root viewing" (clear 12 oz. cups or 2 liter plastic soda bottles with the tops removed)
Tooth picks or wooden skewers
Containers for watering
Label items
Wooden sticks
Masking or duct tape

Method:

Select vegetables that have not been treated with growth retardants for this project. You can ask the produce manager if the vegetables have been treated, or look for vegetables that have sprouting buds. Donations from volunteers' vegetable gardens could be another source of plants.[1]

Cut off the bottom 1/3 of the vegetable. Insert a toothpick or wooden skewers, depending on the thickness and weight of the vegetable into 4 opposite sides of the vegetable just above the cut.

Suspend the vegetable on top of the cup or empty soda bottle with the cut end of the vegetable inside the cup or bottle. The tooth picks or wooden skewers support the vegetable. Fill the cup or soda bottle with water till the water just touches the cut vegetable. Do not submerge the vegetable in water, but add water as needed to keep the water level steady.

Label the project with the plant name, date, and participant's name. Encourage the participants to write their own labels.

Eventually the vegetable will begin to root and send out new growth. A trellis for the new growth can be made by attaching wooden sticks to the cup or bottle with masking or duct tape; or allow it to grow around a window or as a hanging plant.

If this project is started in September using sweet potatoes (yams), the new plant could potentially be planted the following spring/early summer and harvested in late fall!

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[1] Be sure there is no pesticide residue on donated vegetables. If pesticides have been used, the "days to harvest" recommendation on the label must be followed.

Everlasting Flower Arrangement

Horticultural Skills Objectives:

- Identify three flowers that can be dried.
- Identify one way to dry flowers.
- Create a dried flower arrangement.

Supplies Needed:

Table cover
4-inch pot (plastic)
Dry floral foam
Knife (to cut floral foam)
Colored plastic wrap
¼ inch curling ribbon in a variety of color
Dried flowers with stems–Celosia, Dusty Miller, Strawflowers, Cabiosa, Statice, Xeranthemum, Achillea (yarrow), dried grasses and any other flower that dries and retains its color.
Scissors for curling ribbon
Label items

Method:

Cover the table. Cut the dry floral foam into pieces that will fit into the plastic pots. Give each participant a pot and piece of floral foam. Place the foam into the pot. Discuss the dried flowers being used such as names, where they were grown and how they were dried. (See Appendix for information on drying flowers.) Insert flowers into the foam to create a pleasing arrangement. Wrap plastic around the bottom of the pot and tie in place with a ribbon. The ends of ribbon can be curled to decorate. Label the project with the date and participant's name. Encourage participants to write their own labels.

Dried flowers such as Celosia, Strawflowers, and Statice are colorful and a good size to manipulate.

Mini-Pumpkins

Horticultural Skills Objectives:

- Identify three flowers that can be dried.
- Create a dried flower arrangement.

Supplies Needed:

Table cover
Mini pumpkins, approximately 3 to 4 inch diameter (available in late summer and fall)
Assorted small to medium colorful dried flower heads (See Appendix for suggested flowers.)
Decorative moss
Ribbon (6 inch pieces, ¼ to ½ inch thickness)
Non-toxic craft glue
6 inch squares of wax paper
Oak or maple leaves turned fall colors
Acorns, chestnuts, etc.
Novelty paper plates, Halloween or Thanksgiving motif

Method:

Cover the work tables. Pour a small amount of glue onto each wax paper square. Place several squares on each work table within easy reach of the participants. Put containers of assorted dried flowers, decorative moss, and ribbons on each table. Discuss the types of flowers in the container.

Label the bottom of each plate with the date and participant's name. Encourage participants to write their own labels. Place each mini pumpkin in center of a paper plate and distribute one to each participant. Participants then create their own floral design by selecting dried flowers, decorative moss, and ribbon and arranging them on top of the mini pumpkin. Dip the flowers and ribbon into the glue. Glue the flowers and ribbon to the top of the pumpkin.

Distribute various colored and shaped leaves, acorns, etc., with which the participants decorate their plates. Let stand to dry well. These decorated pumpkins will need to be discarded after about a month. If room conditions are dry enough, the pumpkin may last longer.

Mini-pumpkins and other decorative squash are available in the late summer and fall.

Flower Fragments / Seed Ornaments

Horticultural Skills Objectives:

- Identify seeds.
- Create an ornament using plant materials.

Supplies Needed:

Flower fragments[1]
Assorted seeds of different sizes and colors[2]
Poster board, cardboard, or foam poster board (See pages 24-26 for sample ornament designs)
Lace (optional)
Non-toxic glue
Ribbon (variety of colors cut into 6 inch pieces of ¼ inch thickness)
Pencils
Scissors
Hole punch

Method:

Ornament designs can be in the shape of hearts, shamrocks, turkeys, snowmen, rabbits, or flower heads. Use your imagination for other shapes. Draw a pattern on the card board or poster board in the shape to be used and cut it out for use as a template.

Participants trace the same ornament pattern once or twice on colored pieces of poster board, cardboard, or foam poster board, depending on the thickness of the material being used. Color suggestions are: red and pink for hearts; brown and orange for turkeys; blue for snowmen. These shapes are then cut out. One of the shapes will be used for the front that will be covered with the seeds and flower fragments. Usually lighter colored paper works better for the front. The other cutout will be the back. Label the back piece. If only using one piece of poster board or foam, the individual's name can be written on the back side of the ornament. Encourage the participants to write their names.

If using two pieces of poster board or foam, spread glue on the back piece, make a loop with the ribbon for hanging, and place it on the glue at the top of the ornament shape. If lace is to be used—when making hearts for example—place the lace along the edges of the shape, making sure there is enough glue. Cover with the second shape so that the ribbon and lace are secure between the two shapes. The two pieces should now be glued together, ***OR,*** if only using one piece of poster board or foam board, use a hole punch to make a hole at the top of the ornament design and tie a loop of ribbon through it.

Spread the glue over the ornament's front surface. Sprinkle the seeds and dried flower pieces onto the glue in a personal design. Seeds can be used to outline the design or accentuate pictures–eyes, nose, ears, and hair, etc. Lightly press the seeds and petals to be sure they touch the glue. Lay the finished ornament flat for one day or until the glue is completely dry.

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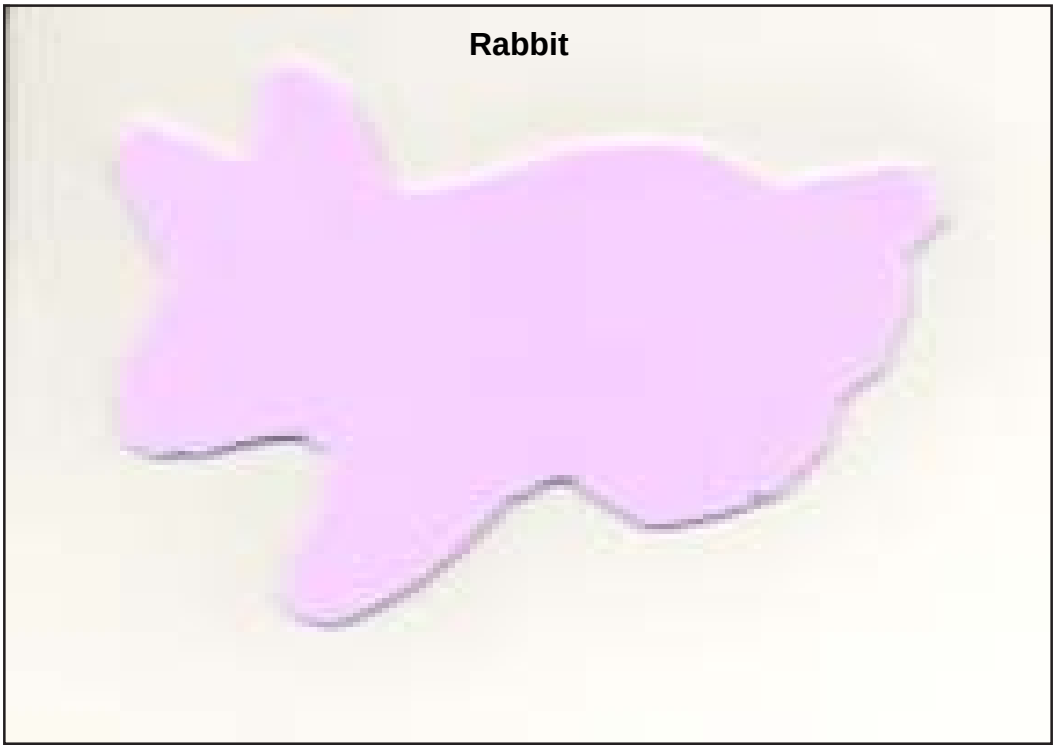
[1] Flower fragments are a combination of small flower petals and/or pieces of dried flowers collected over time and stored in a jar.
[2] Avoid using poisonous or treated seeds. Some suggested seeds are: beans, marigolds, and sunflowers.

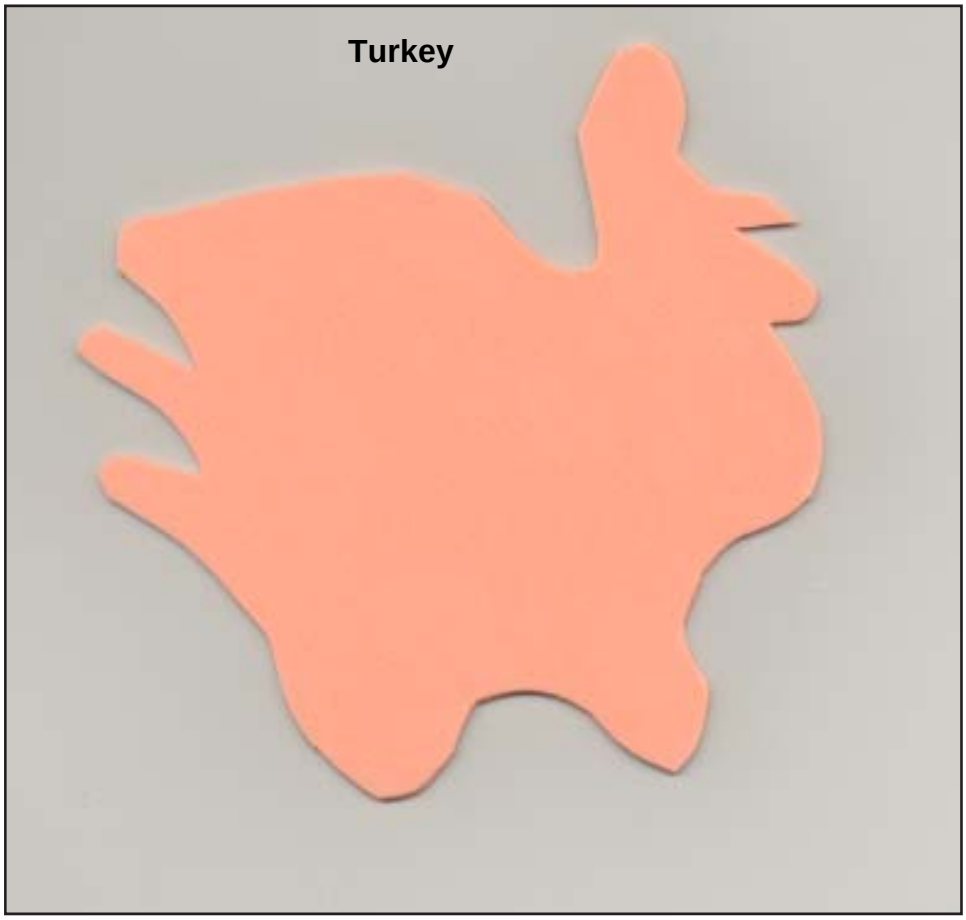
Samples of Foam Poster Board Ornament Designs

(Actual Size Shown)

Heart

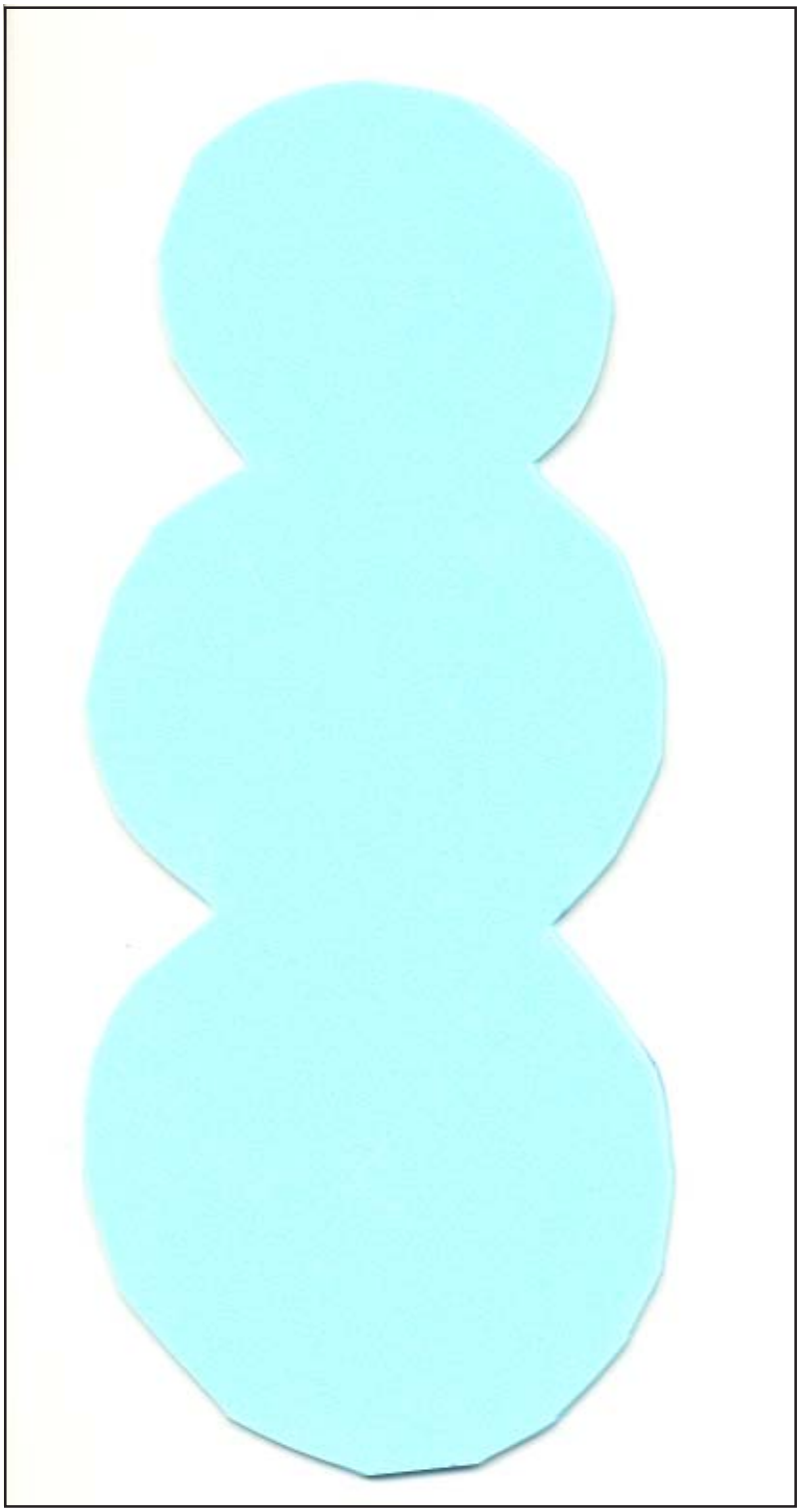
Rabbit




Turkey


Shamrock

Snowman



Fragrant Pomander

Pomanders combine the spicy fragrance of cloves with the tangy sweetness of an orange to produce a wonderfully aromatic and decorative object.

Horticultural Skills Objectives:

- Describe where oranges come from.
- Describe how cloves are harvested.

Supplies Needed:

Thin skinned juice oranges (not navel)
Ribbon, (1/4 to 1/2 inch width) yarn or fishing line (12 inch length)
Strong, large eye darning needle
Whole cloves (about 20 per orange)
Buttons or ¼ inch slices of corks
Nails
Felt tipped pens
Small plastic or paper bowls
Colored netting

Method:

Have a discussion about citrus fruits and spices. Provide information about where they grow, and ask about what senses we use to take pleasure in them. Responses include sight, taste, touch, and smell. Explain that in this project they will be creating an ornament that they will enjoy seeing, touching, and smelling.

Double thread the needle with the ribbon, yarn, or fishing line. Fishing line is the most durable. Push the needle first through the orange, top to bottom, then through the cork or button placed at the bottom of the orange. It will keep the ribbon from slipping out of the fruit as it shrinks. Tie several knots at the end of the ribbon that has been threaded through the cork or button.

A pattern can be made on the orange using a felt tip pen (optional). Distribute the fruit and place small bowls of cloves on the table. Stick the whole cloves into the fruit, pricking the skin with a nail first, if necessary. Leave spaces about the size of one clove between *each clove* to allow for shrinkage as the fruit dries.

Hang the finished orange in an open area that has good air circulation. Avoid direct sun. It will dry, shrink, and harden. The orange must be kept completely dry or it will get moldy. Discard any molded oranges.

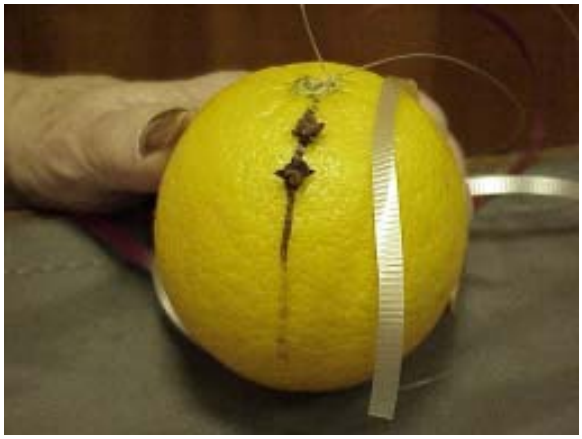
Once the fruit has dried, add the finishing decorative touches. Tie the ribbon to the top of the pomander into a loop for hanging or wrap the pomander in colored netting.

It is believed the present form of oranges was first grown in eastern China around the sixth century, BC. Alexander the Great brought oranges to Europe between 300 and 400, BC. Christopher Columbus gets the credit for introducing oranges to the Americas as he brought seeds to Haiti in 1493, AD. Native Americans spread seeds around Florida. The first cultivated grove in what is now the United States was at the San Diego Mission in California (1769).

Cloves are actually dried unopened flower buds of an evergreen tree. Clove tree (Eugenia caryophyllata) flower buds are picked off the trees by hand before flowering and separated from the stems. The cloves are dried. If the buds are allowed to bloom, their small flowers are crimson with yellow petals. Clove trees are native to the Spice Islands located near the equator in Eastern Indonesia. They are cultivated in tropical areas particularly Tanzania, India, Sri Lanka and Jamaica. The word clove is derived from French and Spanish words meaning nail.

The pomander ball stimulates the senses of sight, touch, and smell.

Fishing line is the easiest material to thread through the orange and button or piece of cork at the bottom of the orange.



A felt tip marker can be used to draw a design to place the cloves into. Leave space between the cloves as the orange will shrink as it dries.

Decorative ribbon or colorful netting can be added as a finishing touch.

Sachets

Horticultural Skills Objectives:

- Identify one or two plants by their scent.
- Make a sachet.

Supplies Needed:

Potpourri
Container for potpourri
8 to 10 inch squares or circles of netting or scraps of cloth[1]
Fastener (ribbon, string or twist ties)
Decorations: ribbons, silk flowers, buttons, pins, unpaired earrings or cufflinks, figurines.

Method:

Pass around container of potpourri[2] for people for people to see, touch, and smell. Avoid putting faces in the potpourri. Participants may rub the potpourri with their fingers and then smell their fingers. Identify the plants in the potpourri mix and discuss where they grow.

Distribute netting or cloth and fasteners. If using netting, allow two sheets per person.

Put a small handful of potpourri in the center of the double layer of netting or single layer of cloth. Add more potpourri if needed.

Gather the edges of the netting to the center and attach the fastener. Tighten the fastener by tying the ribbon in a double knot or twisting the twist-tie fastener.

Add decorations to the sachet.

Use a double layer of netting for the sachet.

Sachets can be hung from walkers or kept in drawers. People enjoy giving them as gifts to family and friends.

[1] Use 8 to 10 inch pieces of cloth from an "old favorite" article of clothing, blanket, or other sentimental material.
[2] Some participants may be allergic to fragrant potpourri. Avoid purchasing potpourri with extra fragrances added. If the scents are a problem for participants, dried unscented flowers may be used instead of potpourri.

Decoupage Boxes

Horticultural Skills Objectives:

- Describe how pressed flowers are made.
- Identify flowers, ferns and leaves.

Supplies Needed:

Pressed flowers, leaves, ferns (See Appendix)
Wood boxes with lids[1]
Small tree fruits[2]
White non-toxic glue[3]
Small container for individual glue supply
Small sponge brushes, or bristle brushes
Dibble stick
Newspaper to cover tables
Wet hand wipes
Permanent marker
Potpourri (optional)
NOTE: Allow 24 hours for this project to dry.

Participants enjoy this fun, but sticky, project. Styrofoam meat trays make good containers for glue. Moist hand wipes are a must!

Method:

Cover the worktable. Place pressed flowers, leaves, ferns and, if using, small tree fruits in center of each table. Show the participants the pressed flowers and identify them.

Explain how flowers are pressed. (See Appendix for information on pressing flowers). Show the group a flower press or book being used to press flowers.

Distribute a wood box, small container of non-toxic glue, and brush to each participant. Label the bottom of the box with the participant's name. If the box will be used as a gift, the participant can write a message. Encourage the participants to write their own label/message.

The participants can decide if they would like to decorate the interior and exterior or just the exterior. Do not decorate the interior of the box if it will be filled with potpourri.

To decorate the interior, using the brush apply a layer of glue to the entire inside of the box and entire inside of the lid where flowers/plant materials are to be placed. It is important to apply the glue to wood areas not being covered by flowers, since the glue creates an even look to the finished project.

Use the dibble stick to arrange the pressed flowers and plant materials on top of the glue. When the glue is dry, gently brush a layer of glue over the pressed plant material inside of the box.

Repeat the procedure on the outside of the box and the top of the lid. A third layer of glue can be applied for a glossier looking finish. If any part of the box is not covered, additional glue can be applied at any time.

Allow 24 hours for the boxes to completely dry.

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[1] Wood boxes come in many sizes; consider the amount and size of pressed flowers, leaves, and ferns available when selecting boxes.

[2] Some small tree fruits, such as hemlock cones, seed pods, or pinecone fragments, make interesting focal points for the interior or exterior of the box or the lid.

[3] Use white non-toxic glue so participants can see coverage when they are applying it. The glue will dry clear.

Appendix

Houseplants for Leaf Cuttings

Most plants that can be propagated from leaf cuttings have thick fleshy leaves. They tend to grow in rosette forms.

Begonia (rhizomatous)
Crassula (Jade)
Echeveria
Kalanchoe
Peperomia
Saintpaulia (African Violet)
Sansevieria (Snake Plant or Mother-In-Law's Tongue)
Sinningia (Florist Gloxinia)

Houseplants for Stem Cuttings

Begonia (Fibrous rooted)
Coleus
Columnea (Goldfish Plant)
Crassula (Jade)
Ficus pumila (Creeping Fig)
Fittonia
Fuchsia
Gynura (Purple Passion Vine)
Hypoestes (Baby Tears, Pink Polka Dot Plant, Pink Splash)
Maranta (Prayer Plant)
Pelargonium (Florist Geraniums)
Peperomia
Plectranthus (Swedish Ivy)
Ruellia (Monkey or Trailing Velvet Plant)
Sedum (Donkey's Tail)
Tradescantia (Wandering Jew, Inch Plant)
Zebrina (Wandering Jew)
Zycactus truncatus (Holiday Cacti)[1]

Houseplants for Division

Plants that can most easily be divided grow in herbaceous clumps with erect stem or rosettes. Woody stemmed plants tend to be difficult to divide. Some of the plants listed below produce offsets or plantlets which can be propagated by gently cutting them away from the "parent" plant.

Aglaonema (Chinese Evergreen)
Aloe (when offsets have rosette shape and leave are starting to open)
Calathea
Chlorophytum (Spider Plant) (Stolen born plantlets)
Ferns[2] (Boston, Button, Rabbit's Foot)
Rhoeo (Moses in the Cradle) (offsets)
Sansevieria (Snake Plant or Mother-in-Law's Tongue)
Saxifraga (Mother of Thousands, Strawberry Begonia) (Stolen born plantlets)

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[1]When taking holiday cacti stem cuttings, make each cutting of two adjoining segments in the spring or summer. The "bottom" segment should be buried in the potting soil/mix, so that the cutting can stand upright. Treat the cuttings as a mature plant.

[2] Some species of ferns may be poisonous.

Houseplants for Terrariums

Calathea makoyana (Peacock Plant)
Episcia (Peacock Flower)
Fittonia verschaffeltii (Mosaic or Nerve Plant)
Hypoestes phyllostachya (Baby Tears, Polka Dot Plant or Pink Splash)
Maranta (Prayer Plant)
Mosses
Pilea cadierei (Aluminum Plant)
Pilea depressa (Creeping Plant)
Pilea involucrata (Friendship Plant)
Saintpaulia (African Violets)
Saxifraga stolonifera (Mother of Thousands, Strawberry Begonia)

Vegetables for Rooting

Select vegetables that have not been treated with growth retardants for this project. Ask a produce manager if growth retardants have been used, or select vegetables that are beginning to sprout. Vegetables can also be donated from home gardens.

Carrots
Pineapples
Potatoes
Sweet Potatoes (Yams)

Flowers for Pressing

Flowers can be pressed in a flower press or in heavy books, such as a phone directory or dictionary. If using a book to press flowers, open to a page towards the center of the book. Place a sheet of wax paper on the book page. Lay the plant material on the wax paper. Flatten out the flowers and foliage. Place another piece of wax paper on top of the plant material. Close the book. Store the book in a dry place. Check the plant material after a few weeks.

Artemsia (Dusty Miller)
Fern Leaves (see footnote # 18)
Gypsophila (Baby's Breath)
Limonium sinuatum (Statice)
Pansies
Rose

Flowers for Drying

The best time to harvest flowers for drying is the late morning, after the dew has dried, but before the hottest part of the day-noon. The entire flower should be dry. Remove foliage from the stems. Gather the flowers in small bunch and wrap the stems together with a rubber band.

The ideal place to dry flowers is a dark dry place with adequate ventilation. An attic, barn, garage, or storage shed can be a good of place to air dry flowers, provided there is good air circulation.

The flower bunches should be hung upside down to dry. There are several options for hanging bunches. Attach a foot of string to the rubber band. One option is to tie the other end of the string to a coat hanger. You can hang 2 to 3 bunches on each hanger. Another option is to tie several flower bunches to a piece of lath and suspend the lath from the ceiling rafters. The bunches can also be hung from nails in the rafters. Which ever option is used, be sure to space the bunches so that air can circulate around them.

Check the flowers every few days feel if they are dry. The bottom of stems of completed dry flowers will snap. If the stem bends, the flower is not dry enough for storage and may get moldy. Once the flower bunch is completely dry, wrap them in tissue paper or newspaper and store them in sealed boxes. Keep the boxes in a warm dry place.

Celosia (Cockscomb)
Dahlia
Gomphrena (Globe Amaranth)
Helichrysum (Strawflower)[1]
Lavandula (Lavender)
Limonium sinuatum (Statice)
Limonium tataricum (German Statice)
Salvia

[1] Strawflowers should be harvested when the outer petals start to open. They do not dry well by hanging upside down. Insert a piece of floral wire into the stem and up into the flower head. Place the flowers upright in a can or vase in dark, dry place. The flower will open and tighten itself around the wire. If you are only using the flower head, it is not necessary to insert the wire.

Additional Resources

Rutgers Master Gardener Program
Garden and Landscape Publications
Rutgers Cooperative Extension
School of Environmental and Biological Sciences
Rutgers, the State University of New Jersey
88 Lipman Drive
New Brunswick, NJ 08901-8525
(732) 932-9306
www.rcre.rutgers.edu

For information about Cooperative Extension Master Gardener programs in your state contact your state land grant university. Your local Cooperative Extension office may be listed in the county government section of the local phone directory.

Rutgers University , School of Environmental and Biological Sciences
Plant Biology and Pathology Department
Horticultural Therapy Studies
Foran Hall, Dudley Road
New Brunswick, NJ 08903
(732) 932-9711 ext. 240
http://aesop.rutgers.edu/~horttherapy

The American Horticultural Therapy Association
3570 E. 12th Ave. , Suite 206
Denver, CO 80206
1-800-634-1603
www.ahta.org

The National Gardening Association
1100 Dorset Street
South Burlington, VT 05403
(802) 863-5251
www.garden.org

Horticultural Therapy Services
Chicago Botanic Garden
1000 Lake Cook Road
Glencoe, IL 60022
(847) 835-8250
http://www.chicagobotanic.org

New York Botanical Garden
200th Street and Kazimiroff Blvd.
Bronx, NY 10458-5126
(718) 817-8747
www.nybg.org

Brooklyn Botanic Garden
1000 Washington Avenue
Brooklyn, NY 11225
(718) 623-7200
http://www.bbg.org

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