

Therapeutic Horticulture Programme

This collection of 22 nature-based activities is the result of a therapeutic horticulture intervention programme that was administered as part of a broader research study on the effects of therapeutic horticulture on older adults. The study was a collaboration between the National Parks Board and National University Health System and funded by the MND Research Fund.

The activities were designed in collaboration with CUGE Research Fellow Ms Elizabeth Diehl, who is a horticultural therapist registered with the American Horticultural Therapy Association. The programme was conducted in the Therapeutic Garden @ HortPark, with permission from the HortPark office. They may be adapted for application in private gardens as well.

These activities are provided here for use by horticultural therapists, facilitators or healthcare professionals who are aiming to encourage social interactions, provide sensory stimulation and exercise, reduce stress and tension, and reward nurturing behaviour amongst targeted groups such as the elderly. They have been shown to benefit participants cognitively through the learning of new skills, and regular participation is associated with improved coordination, balance and strength. The activities may be conducted in individual sessions or as part of a programme, and in the latter case it is recommended to begin each session with recall of the previous activity. It is suggested to end all sessions with a time of reflection.

The activities are separated into two types, **gardening** and **nature-art** activities. The gardening activities involve growing and nurturing plants, as well as making useful items from garden and plant products. The activities utilise various growing methods, such as from seeds, seedlings or stem cuttings. The nature-art activities, on the other hand, are designed to promote creative expression, allowing for participants to engage beyond direct verbal exchanges.

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🌱 denotes gardening-related activity

🌸 denotes nature-art activity

For more information on NParks' Therapeutic Gardens, you may visit www.nparks.gov.sg/gardens-parks-and-nature/therapeutic-gardens.



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Growing Pea Sprouts

ACTIVITY GOALS

This activity offers a simple introduction to gardening. Handling and counting of pea seeds promote fine motor skills, eye-hand coordination, cognitive function and concentration. The activity also presents an opportunity to care for the growing pea sprouts following the session, encouraging a sense of purpose, meaningfulness and hope.

INTRODUCTION PHASE

1. Introduce the activity by describing different ways of preparing pea sprouts for consumption, their nutritional properties, and how they can be easily grown and harvested.

Provide images or live examples of different stages of growth. Consider providing a sample of pea shoots for participants to taste if it's appropriate for the group.

ACTIVITY PHASE

2. Demonstrate the steps of growing pea sprouts:
 - Fill the pot with compost, leaving about 1 cm unfilled from the top. Wet the compost slightly with water.
Explain that the pots have a few holes at the bottom to allow water to drain out.
 - Sow the seeds on top of the compost, leaving a gap the size of a pea between each seed.
Explain that giving space between seeds will allow them room to grow. If appropriate, encourage participants to count out a pre-determined number of seeds for use.
 - Cover the seeds with a thin layer of compost. Water the surface lightly again.

3. Give participants ample time to plant pea sprouts in their pots. Ask them to mark their name and date of activity on the pot.

Facilitators should sit with participants and provide gentle reminders and assistance at all stages if necessary.

CONCLUSION PHASE

4. Conclude activity session by praising the group's work. Discuss the on-going care of the pea spouts and provide take-home instructions.

The pots should be placed next to the window, rather than in direct sun. They should be watered lightly daily, to keep the compost moist. The pea shoots will be ready for harvest when they grow to about 8 cm tall. This will take 2–3 weeks. Harvesting can be done by pinching off each shoot just above the bottom leaves. Let participants know that some of the pea shoots may regrow to give a second harvest.



MAIN MATERIALS

Packaged maple pea seeds (pre-soaked for 24 hours)

Compost

Plastic containers (about 10 cm deep and 14 cm diameter, with drainage holes)

Garden spades

Masking tape and markers

PLANNING NOTES

- You may consider giving participants some dried peas to take home, with planting instructions. They can plant a new batch after the current batch is harvested.
- Encourage participants to take photos or draw a picture of their pea sprouts for sharing at the next session.



Potting Up

ACTIVITY GOALS

This activity involves moving plants out of a smaller container into a bigger planter box. It leads to an opportunity to care for the plants, encouraging a sense of purpose, meaningfulness and hope. Overall, the activity symbolises renewing the environment to enable growth, promoting a positive mindset.

INTRODUCTION PHASE

1. Introduce the herbs and their common uses.
Encourage participants to smell and touch the leaves. Ask participants if they recall growing or using any herbs in the past.
2. Explain the need for plants to be potted up to bigger containers as they increase in size, like the concept of renewing the environment to promote growth.
Ask participants if they ever feel the need for a change in environment.

ACTIVITY PHASE

3. Share the garden gloves, pots of herbs and trays of potting mix.
Ask each participant to select two herbs and talk about why they chose them.
4. Demonstrate the steps of potting up:
 - o Put some soil in the bottom of the planter box.
 - o Uproot the herbs from the original pot carefully, shake excess soil off the roots, and transfer them into the planter box.

- o Top up the planter box with more planting mix and compost, tamping the soil down firmly to hold the herbs in place.
- o Add a layer of coconut husks on top to prevent water loss.
- o Water the soil generously until it is wet.

5. Give participants ample time to plant the herbs. Ask them to mark their name and date of activity on the pot.
Facilitators should sit with participants and provide gentle reminders and assistance at all stages if necessary.

CONCLUSION PHASE

6. Conclude activity session by praising the group's work. Discuss the on-going care of the herbs and provide take-home instructions.



MAIN MATERIALS

Small potted herbs (e.g. Spearmint, Holy Basil, Mugwort, Lemongrass)

Potting mix, compost, coconut husks

Garden spades, garden gloves, planter boxes, watering cans

Masking tape, markers

PLANNING NOTES

- Encourage participants to take photos or draw a picture of their seedlings for sharing at the next session.



Making Suncatchers

ACTIVITY GOALS

This activity involves arranging plant materials to create a piece of art. It requires participants to physically move about, paying attention to garden details during the gathering of plant materials. It encourages exploration and promotes a sense of creativity and achievement through the completion of the artwork. The activity also promotes eye-hand coordination and fine motor skills, as well as the participants' ability to focus.

INTRODUCTION PHASE

1. Introduce the activity by showing participants the materials involved, including suitable plant materials. They will be gathering plant materials from the garden, and the materials should be relatively flat and fit within the size of the laminating paper provided.

Pass around samples of suncatchers created by other older adults to demonstrate that the task is achievable. Talk about their reflective property and use as ornaments for catching sunlight.

ACTIVITY PHASE

2. Invite participants to gather plant materials from the garden, if permitted.

Encourage participants to walk through the garden together to collect plant materials. Advise them not to choose materials that are too thick as they may create air bubbles during lamination. Point out the beautiful plant materials and colours they have chosen and ask them to talk about their choices.

3. Demonstrate the steps of making suncatchers:
 - o Flatten and arrange materials of different colours on the laminating paper.

MAIN MATERIALS

Scissors, hole-punchers

Laminating paper in A4 size

Laminator

Crayon shavings

Strings of different colours

Markers

- o Decorate with crayon shavings by sprinkling them over the plants. (This is optional.)
- o Hold the artwork in a horizontal position and laminate with the pre-heated laminator.
- o Ask participants to mark their name and date of activity at the back of the suncatcher.
- o Trim as desired, perforate and tie a string for hanging.

4. Give participants ample time to arrange their materials into artwork on the laminating paper.

Facilitators should sit with participants and provide gentle reminders and assistance at all stages if necessary. They should offer participants the opportunity to laminate their artwork if desired. As a safety precaution, assign at least one facilitator to be stationed at the laminator when turned on to help participants with this step.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Show the finished suncatchers to the group and highlight the interesting points of each creation.



PLANNING NOTES

- ☐ Pre-identify plants in the garden that have suitable leaves for the artwork and talk to participants about these plants during material gathering.
- ☐ You may also hang some completed suncatchers to show how they reflect light and work as interesting ornaments.



Growing Vegetables from Seeds

ACTIVITY GOALS

This activity involves growing spinach from seeds. The activity leads to an opportunity to care for the growing vegetables, encouraging a sense of purpose, meaningfulness, and hope. Handling the seeds promotes fine motor skills and eye-hand coordination. Common vegetables are used in this activity, to enable reminiscing. Spinach may be replaced with other common vegetables.

INTRODUCTION PHASE

1. Show the different types of spinach that are consumed locally. Explain the process of growing them from seeds. *Chinese Spinach is a variety with red leaves while Water Spinach, commonly called Kang Kong, is green. Both have pointed leaves and are known as Bayam in Malay or Amaranth in western cultures. Ask participants to share about other types of spinach that they are aware of, and their methods of cooking.*

ACTIVITY PHASE

2. Share the seeds of the two types of spinach, pots, and potting mix. *Ask participants to describe the subtle differences between the two types of seeds.*
3. Demonstrate the steps of growing spinach from seeds:
 - o Scoop potting mix into the pot, filling it halfway.
 - o Pass around a scoop of potting mix and ask participants to describe the feel and fragrance of the soil. *Make several indents in the soil and sow the seeds.*
 - o Suggest methods for sowing seeds; by hand, with a spoon, etc.

MAIN MATERIALS

Seeds of Chinese and Water Spinach

Potting mix, compost

Pots, garden spades, garden gloves, watering can with spray nozzle

Markers and masking tape

- o Cover the seeds thinly with more potting mix, and then top up with compost.
- o Water lightly to keep the soil moist.

4. Give participants ample time to plant their spinach seeds in the pots. Ask them to mark their name and date of activity on the pot with masking tape.

Facilitators should sit with participants and provide gentle reminders and assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Discuss the on-going care of the spinach plants and provide take-home instructions.

Explain that the pots should be placed next to the window, rather than be in direct sun. They should be watered lightly daily, to keep the soil moist. The seedlings will sprout in a week and the leaves are ready for harvesting in another 2–3 weeks.



PLANNING NOTES

- Consider giving participants extra seeds to bring home, with planting instructions. They can plant a new batch after the current batch is harvested.
- Encourage them to take photos or draw pictures of the seedlings for sharing at the next session.



Growing Vegetable Plugs

ACTIVITY GOALS

This activity involves growing a variety of vegetables into plugs. Participants will work in pairs to plan and plant the seeds in modular trays. It encourages teamwork and leads to an opportunity to care for the growing vegetables, promoting a sense of purpose, meaningfulness and hope. Common vegetables are used in this activity, to enable reminiscing.

INTRODUCTION PHASE

1. Explain the technique of growing vegetables in modular trays to create vegetable plugs.
This planting method minimises disturbance to the plant roots from the neighbouring plant, and is easy for transplanting when the plug is ready. Show vegetable plugs that are ready for transplanting.

ACTIVITY PHASE

2. Share the seeds, compost, and modular trays. Ask the participants to work in pairs.
Facilitate the pairing of participants as needed.
3. Demonstrate the steps of planning and growing vegetable plugs:
 - o Draw the plan of the modular tray on the paper provided. Explain that they may discuss with their partner and indicate which seed will be planted in each module. *Encourage them to count the number of modules in the tray. If appropriate, encourage the use of math skills. Indicate the plant name on the plan by using initials.*
 - o Scoop small amounts of compost in each module, filling halfway. *Pass around a scoop of compost and ask participants to describe its feel and fragrance.*

- o Make an indent in the compost of each module and sow the seeds, according to the plan.
- o Cover the seeds thinly with compost.
- o Water lightly to keep the compost moist

4. Give participants ample time to draw their planting plans and sow the vegetable seeds in the modular trays. Ask them to mark their name and date of activity on the trays with masking tape.

Encourage teamwork by suggesting one partner reads the name of the plant while the other sows the seeds into the modules, switching roles mid-way. Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Discuss the on-going care of the vegetable plugs and provide take-home instructions.
Explain that the vegetable plugs should be placed next to the window, rather than be in direct sun. The plugs should be watered lightly daily, to keep the compost moist. Provide instructions for transplanting the vegetable plugs to a bigger pot when leaves appear.



MAIN MATERIALS

Seeds of common vegetables (e.g. Chinese Spinach, Water Spinach, Mustard, Radish, Long Bean)

Compost, modular trays, garden spades, garden gloves, watering can with spray nozzle

Paper, markers, and masking tape

PLANNING NOTES

- Encourage participants to take photos or draw a picture of their vegetable plugs for sharing at the next session.



Making Compost

ACTIVITY GOALS

This activity involves turning kitchen scraps and garden products into useful compost, which provides organic, low-cost nutrients for gardening. The processing of compost materials also promotes fine motor skills and coordination, as well as participants' ability to focus. It promotes a sense of achievement through making something usable.

INTRODUCTION PHASE

1. Explain the use of compost and the process of making it from organic waste.

Compost is natural fertiliser made from decomposed organic matter. The composting process will take several months for it to be ready. Show samples or images of compost at different stages of decomposition.

ACTIVITY PHASE

2. Demonstrate the steps of preparing materials for compost making:
 - o Sort the materials into brown and green categories.
Brown materials are carbon-based. Examples are dry leaves, used egg cartons and woody plant parts. On the other hand, green materials are nitrogen-based. Examples are grass clippings, tea leaves, coffee grounds, eggshells, raw vegetables and fruit scraps.
 - o Cut all materials in thin strips.
 - o Layer the bin first with twigs, then green materials, followed by brown materials. Water slightly. Repeat layering alternately with green and brown materials until the bin is full. The last layer should be brown.
Explain that the layer of twigs at the base of the bin helps to aerate the bottom of the heap.
 - o Cover the bin with the lid to keep the moisture in.

MAIN MATERIALS

Green raw materials (fresh garden products, vegetables and fruit scraps)

Brown raw materials (newspapers, twigs, dried leaves)

Bin with lid and drainage holes, garden gloves, gardening scissors, watering can

3. Give participants ample time to process the raw materials. The layering of prepared materials may be done as a group.

If a participant cannot use scissors safely, suggest using fingers to tear the materials. Facilitators should sit with participants and provide assistance at all stages if necessary. In addition to the food waste brought for the session, participants may collect more dried leaves and twigs from the garden.

CONCLUSION PHASE

4. Conclude activity session by discussing the environmental benefits of compost. Discuss the on-going care of the compost heap.

Explain that the compost heap should be turned every few days for aeration and moistened if it appears dry. The compost should be ready in 3–6 months' time.



PLANNING NOTES

- You may consider informing participants about the activity one week ahead, and ask them to bring suitable materials such as tea leaves, coffee grounds, eggshells, raw vegetables or fruit scraps.
- The compost bin should have a flat and fully sealable lid to prevent mosquito breeding. Tiny holes should be drilled on the sides near the bottom to allow excess water to drain off.



Painting Terracotta Pots

ACTIVITY GOALS

The primary goal of this activity is to get participants to exercise imagination – a cognitive process that is engaged less often as people age. Painting helps improve eye-hand coordination abilities, fine motor skills, and a range of cognitive abilities, including the ability to plan and concentrate. The activity gives participants a sense of purpose, encourages creativity and helps build confidence.

INTRODUCTION PHASE

1. Introduce the activity by showing participants the materials involved, including pots, paint brushes, acrylic paints, and pens.
Pass around samples of painted pots created by other older adults to show that the task is achievable.
2. Explain that some pots have been pre-prepared with masking tape to create random patterns of stripes for participants' selection.
Offer blank pots should any participant wish to create their own drawing.

ACTIVITY PHASE

3. Demonstrate painting on one pre-prepared pot and one blank pot using acrylic pens and paint. For the pre-prepared pot, dry with handheld fan after painting and peel off the masking tape to reveal the pattern.
This can be done with the entire group together or in smaller subgroups depending on the cognitive abilities of the participants

4. Give participants ample time to paint the terracotta pots. Ask them to write their name on their pots, using masking tape.
Facilitators should sit with participants and provide assistance at all stages if necessary. Provide suggestions on the colour choice or design only if participants ask.

CONCLUSION PHASE

5. Conclude activity session by admiring the group's creativity and inviting each participant to share their finished pot with the group.
Encourage participants to talk about their favourite part of their creation and what they plan to do with their pot. If needed, the facilitator can show each painted pot, highlighting the interesting points of each creation.



MAIN MATERIALS

Terracotta pots (5.5 x 5.5 cm) – some blank ones and some pre-prepared pots (with masking tape placed to create random patterns or stripes), sample painted pots

Acrylic paints of different colours, acrylic pens

Paint brushes, dishes to hold the paints

Handheld fan, markers, masking tape

PLANNING NOTES

- The pots may be finished with a varnish spray for longer-lasting colour.
- If exercise is a goal, place the samples in the garden for participants to discover at the beginning of the session.
- The pots may be retained for the transplanting activity (8).



Transplanting Stem Cuttings

ACTIVITY GOALS

This activity involves removing plant parts to start new plants. It leads to an opportunity to create and care for the new plants, encouraging a sense of purpose, meaningfulness and hope. Overall, the activity promotes a positive mindset and looking ahead, to enable the plant to become healthier and aesthetically more pleasing.

INTRODUCTION PHASE

1. Introduce the process of transplanting plant parts, which both tidies the appearance of the existing plant, and allows for new plants to grow from the cuttings.

Explain that when a plant matures, it may require pruning in order to remain aesthetically pleasing. Pruning also removes damaged or unhealthy branches, allowing the plant to become healthier. The stem cuttings may also be used for propagation.

ACTIVITY PHASE

2. Share the garden gloves and gardening scissors. Ask the participants to walk in the garden to collect stem cuttings from plants of their choice, if permitted.
Show participants the correct technique of cutting stems: remove 5–25 cm of stem at least 2.5 cm below a leaf node and include 2–3 pairs of leaves.
3. Demonstrate the steps of transplanting stem cuttings:
 - Scoop potting mix into pot, filling halfway.
Pass around a scoop of potting mix and ask participants to describe its feel and fragrance.
 - Make an indent in the soil and insert the stem cuttings carefully, tamping the potting mix down firmly to hold the cuttings in place.

MAIN MATERIALS

Pots (may use the hand-painted terracotta pots from activity 7)

Potting mix, garden spades, garden gloves, gardening scissors, watering cans

The cuttings should be planted about 10–15 cm apart, to give ample space in-between. Ensure that at least one node is below the soil line.

- Cover with a thin layer of potting mix. Water the surface lightly.

4. Give participants ample time for gathering the stem cuttings and transplanting. Ask participants to mark their name and date of activity on the pot with masking tape.

Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work.
Ask participants to talk about the type of plant that they chose to make their cuttings from.
6. Discuss the on-going care of the cuttings and provide take-home instructions.
The pots should be watered lightly daily, to keep the cuttings moist. Maintain the pots to keep them free of weeds.



PLANNING NOTES

- Facilitators should familiarise themselves with the plants in the garden and show participants which ones are suitable for stem cutting propagation.
- Encourage participants to take photos of their cuttings for sharing at the next session.



Making Body Scrub

ACTIVITY GOALS

This activity involves making a body scrub from natural ingredients. The process promotes fine motor skills and coordination as well as participants' ability to focus. It provides sensory stimulation and promotes a sense of achievement through making something usable.

INTRODUCTION PHASE

1. Introduce the activity by explaining how fragrant body scrubs can be made at home using simple natural ingredients.
Explain that body scrubs help with exfoliation of the skin. Regular exfoliation removes dry, dead skin and also promotes blood circulation.

ACTIVITY PHASE

2. Pass around the jars, sugar, coconut oil, pandan concentrate and bottles of different essential oils.
Explain that the jars must be airtight, to prevent humidity in the air from dampening and clumping the body scrub. Encourage participants to smell the different ingredients and ask them if any are familiar.
3. Demonstrate the steps of making body scrub:
 - o Pour half a cup of sugar into the jar, add three spoonfuls of coconut oil, and mix.
Encourage participants to smell the mixture.
 - o Add five drops of essential oil, as desired. Mix.
Explain that essential oils can energise or calm.

- o Add a few drops of pandan concentrate, as desired. Mix.
The pandan concentrate gives a green colour. Add more if a darker green is desired.

4. Give participants ample time to prepare the body scrub. Participants may select the essential oils that they prefer.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Suggest participants pass around their body scrubs for others to sample.
Encourage participants to talk about which essential oils they prefer.



MAIN MATERIALS

Mason jars (airtight)

Sugar, coconut oil, pandan concentrate

Variety of essential oils

Spoons

PLANNING NOTES

- You may prepare more natural color concentrates – e.g. boil flowers from the Blue Butterfly Pea plant for a purple colour.



Creating Nature-Art Collages

ACTIVITY GOALS

The primary goal of this activity is to enable participants to exercise imagination, a cognitive process that is engaged less often as people age, through the arrangement of different plant materials into a piece of artwork. Contact with different textures and smell of the plant materials stimulate their senses. Attaching the materials onto the art paper promotes eye-hand coordination and fine motor skills. Overall, the activity gives participants a sense of purpose, encourages creativity and helps build confidence.

INTRODUCTION PHASE

1. Introduce activity by showing participants the materials involved, including the plant materials, art paper and glue.
Pass around samples of nature-art collages created by other older adults to show that the task is achievable. You may also showcase some completed nature collages in frames, as examples of how they can be used as ornamental pieces in the house.

ACTIVITY PHASE

2. Share the plant materials that have been pre-prepared. Invite participants to gather more materials from the garden (if permitted).
3. Demonstrate the steps of making a nature-art collage:
 - o Flatten and arrange materials of different colours on the art paper.*Explain that they should not choose materials that are too thick as they may be difficult to fix onto the paper.*

- o When the artwork is arranged, fix the materials individually to the art paper with a generous amount of glue.
- o Leave under the sun to dry.

4. Give participants ample time to select and gather plant materials and arrange them into artwork on the paper. Ask participants to mark their name and date of activity on the back of the nature-art collage.

Facilitators should sit with participants and provide assistance at all stages if necessary. Point out the beautiful colours and designs that participants are creating. Provide suggestions on the colour choice or design only if participants ask.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Show the finished nature collages to the group and highlight the interesting points of each creation.



MAIN MATERIALS

Art paper, multi-purpose glue (strong adhesion formula), cotton buds, masking tape, markers

Plant materials in different colours

PLANNING NOTES

- Facilitators may pre-identify plants in the garden that have suitable leaves for the artwork and talk to participants about these plants during material gathering.



Maintaining the Garden

ACTIVITY GOALS

This activity is a simple introduction to plant maintenance, involving weeding and digging. It promotes mild exercise, gross and fine motor skills and orientation. Caring for a garden is a simple act of kindness and increases self-worth.

INTRODUCTION PHASE

1. Explain that good management and maintenance of plants are important to the long-term care of a garden. It requires the right skills, procedures, and use of suitable products.
Show samples of common plant fertilisers and growth regulators and explain their properties and uses.

ACTIVITY PHASE

2. Share the garden gloves and scissors. Lead participants on a walk around the garden, guiding them in plant maintenance including trimming and the application of fertilisers, if permitted.
During the walk, highlight plants that are flowering. Encourage participants to enjoy the fragrances and textures of the plants. Highlight the plants that need trimming or have dead leaves to remove. Show participants the correct technique of trimming. The trimmings may be collected in the baskets provided to keep the site tidy. Facilitators should walk alongside participants, engage in conversation, and provide assistance at all stages if necessary.

CONCLUSION PHASE

3. Conclude activity session by praising the group's work in keeping the plants in the garden tidy.
4. The trimmings from the activity may be added to the compost bin if activity 6, Making Compost, was done previously.
Show the compost bin they prepared previously (if applicable) and talk about the compost condition.



MAIN MATERIALS

Gardening scissors, baskets, watering cans

Samples of fertilisers and growth regulators

PLANNING NOTES

- ☐ Facilitators should familiarise themselves with the plants in the garden and show participants which ones require trimming.
- ☐ Show participants different parts of the garden to maximise their engagement with nature.



Making Enzyme Cleaner

ACTIVITY GOALS

This activity involves turning fruit peels and scraps into a useful enzyme cleaner for the gardening area or kitchen. The processing of waste materials promotes fine motor skills and coordination as well as participants' ability to focus. It promotes a sense of achievement through making something usable.

INTRODUCTION PHASE

1. Introduce the activity by explaining that fruit peels and scraps can be processed to become a multi-purpose enzyme cleaner for washing dishes, vegetables, and fruits, removing odours, or as fertilisers or insect repellents.
Share that commercial products may contain chemicals which are harmful to the environment. Making natural enzyme cleaners helps to 'upcycle' food waste. Show visuals or samples of common enzyme-based cleaners in the market and their uses.

ACTIVITY PHASE

2. Explain the process of making enzyme cleaner with fruit peels and scraps.
Share that fruit peels will result in a more fragrant product compared to using other types of food scraps. Explain that the addition of sugar and water helps to ferment the solution to turn into an enzyme cleaner. The solution needs to be fermented for 5–6 weeks before it is ready for use. Show a finished sample.
3. Demonstrate the steps of making the enzyme cleaner:
 - o Cut the food scraps into thin strips.
Talk about the colours and fragrance of the different fruit peels.

MAIN MATERIALS

Fruit peels and scraps

Scissors, water, bottles with caps, funnels, measuring cups

Brown sugar

- o Place two cups of the processed materials into a 2 litre bottle.
- o Add half a cup of brown sugar.
Share that brown sugar generally undergoes less processing than white sugar, therefore it retains its natural brown colour.
- o Add one litre of tap water. Tightly screw the cap and dissolve the sugar by shaking the bottle for about 30 seconds.
- o Loosen the cap.

4. Give participants ample time to prepare the food scraps and the enzyme cleaner.
Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work.
Ask participants how they will use the enzyme mix.
6. Provide take-home instructions.
The bottle should be shaken once a day and the bottle cap left loosely fastened afterwards. The mix needs to be fermented for 5–6 weeks before it is ready for use.



PLANNING NOTES

- You may consider informing participants about the activity one week ahead, and ask them to bring suitable materials such as fruit scraps.



Growing Wheatgrass

ACTIVITY GOALS

This activity offers a simple introduction to gardening. Handling and counting of wheatgrass seeds promote fine motor skills, eye-hand coordination, cognitive function and concentration. The activity leads to an opportunity to care for the growing Wheatgrass, encouraging a sense of purpose, meaningfulness and hope.

INTRODUCTION PHASE

1. Introduce the activity by describing the process of growing Wheatgrass for consumption, its nutritional properties and how it can be easily grown and harvested.

Show images of different stages of growth and ways that Wheatgrass is used. Talk about the nutritional value of Wheatgrass and how it can be grown easily at home and juiced to make a healthy drink. However, caution that Wheatgrass is high in potassium and participants with kidney disease should consult their doctors before consuming it.

ACTIVITY PHASE

2. Show the sprouted Wheatgrass seeds and fully-grown Wheatgrass. Pass around the containers.
Encourage participants to run their hands across the fully-grown Wheatgrass and feel its softness.
3. Demonstrate the steps of growing Wheatgrass:
 - Fill the tray with about one inch of soil.
Ask participants to describe the feel and fragrance of the soil.
 - Moisten the soil lightly with water.

- Sprinkle sprouted seeds evenly across the soil.
Encourage participants to count out the number of seeds.
- Sprinkle loose soil over the seeds.
- Cover with a plastic lid with pre-punched air holes.

4. Give participants ample time to plant the Wheatgrass. Ask them to mark their name and date of activity on the container.

Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Discuss the on-going care of the Wheatgrass and provide take-home instructions.

Explain that the containers should be placed next to the window, rather than in direct sun. They should be watered lightly daily to keep the soil moist. When the Wheatgrass is about 3 cm tall (day 4), remove the lid and continue to water lightly daily. The Wheatgrass is ready for harvesting when it reaches about 12 cm tall. Harvest by using scissors to cut just above roots. Some of the Wheatgrass may regrow to provide a second harvest.



MAIN MATERIALS

Sprouted Wheatgrass seeds (pre-soaked for 30 hours), fully-grown Wheatgrass

Soil

Containers (>3 cm tall), with lids that are perforated with holes

PLANNING NOTES

- Encourage participants to take photos of the Wheatgrass for sharing at the next session.
- Consider giving participants extra seeds to bring home, with planting instructions. They can plant a new batch after the current batch is harvested.



Harvesting Wheatgrass

ACTIVITY GOALS

In this activity, participants harvest Wheatgrass. They will experiment making wheatgrass juices with different natural additives. The activity stimulates their sense of taste and promotes social interaction as they talk about the flavours of wheatgrass juice as other ingredients are added. Overall, it introduces growing edibles as a form of enjoyment and healthy source of inexpensive fresh food.

INTRODUCTION PHASE

1. Introduce the activity by describing the nutritional value of wheatgrass juice, and showing some of the fruits that can be added to make different flavours.
Highlight that Wheatgrass is high in potassium, therefore participants with kidney disease should consult their doctors before consuming. Explain how the addition of each ingredient enhances the taste of plain wheatgrass juice.

ACTIVITY PHASE

2. Pass around the Wheatgrass.
Encourage participants to feel the texture and smell the freshness.
3. Demonstrate the steps of making wheatgrass drink:
 - Cut the Wheatgrass just above the roots.
Encourage participants to take turns cutting the Wheatgrass.
 - Clean the Wheatgrass and place in blender.
 - Pass around the pure wheatgrass juice in sampling cups for tasting.

- One at a time, add a new ingredient, blend and pass around in sampling cups for tasting.
Ask participants to rate each juice sample. Provide alternative juice mixtures for participants who are not suited to consume wheatgrass juice.
- Repeat until all the ingredients are used.

4. Give participants ample time to make wheatgrass drinks with ingredients of their choice.

Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Encourage participants to harvest their Wheatgrass at home (if Activity 13 was done) and make delicious drinks to share with their families.
Ask each participant to tell the group which juice mix was their favourite.



MAIN MATERIALS

Grown Wheatgrass

Fruits (e.g. apples, oranges, pears, pineapples, lemons)

Honey, chilled water

Blender, sampling cups

PLANNING NOTES

- Provide more Wheatgrass seeds for participants to bring home, if they wish.



Sketching Leaves

ACTIVITY GOALS

This activity involves the gathering of leaves with different shapes and sketching them on art paper. It requires participants to move about physically and to pay attention to the details of the leaves during sketching. It promotes a sense of achievement through the completion of the artwork. The activity also promotes fine and gross motor skills and eye-hand coordination as well as participants' ability to focus.

INTRODUCTION PHASE

1. Introduce activity by showing participants the materials involved, including pencils, art paper, magnifying glasses and suitable plant materials.
Pass around samples of leaf sketches created by other older adults to show that the task is achievable.

ACTIVITY PHASE

2. Share the pre-prepared plant materials, art papers, pencils, and magnifying glasses. Invite participants to gather more materials from the garden using the baskets, if permitted.
Encourage participants to walk through the garden together to collect additional plant materials if possible. They may also select from the pre-prepared options.
3. Demonstrate the steps of leaf sketching:
 - o Take time to observe the leaf outline and details of the venation.
Encourage participants to identify the main veins in the leaves, comparing their different patterns.

- o Plan the drawing.
- o Draw the outlines of the selected leaves.
Remind participants that the drawing does not need to look exactly like the leaf.
- o Fill in the venation details.
Explain that participants may use a magnifying glass to study the details of the leaf venation.

4. Give participants ample time to select and gather plant materials and plan the drawing. Ask participants to mark their name and date of activity on the back of the drawing.
Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Show the finished sketches to the group and highlight the interesting points of each drawing.



MAIN MATERIALS

Drawing block, pencils, erasers, magnifying glasses

Leaves of different shapes

Gardening scissors, baskets for gathering more materials, pre-prepared plant materials

PLANNING NOTES

- Facilitators should pre-identify plants in the garden that have suitable leaves for the artwork and talk to participants about these plants during material gathering.
- The sketches may be finished with a varnish spray for longer-lasting colour.



Making Prints with Leaves

ACTIVITY GOALS

In this activity, participants use leaves to create prints. The gathering of leaves with different shapes requires participants to move about physically. The activity promotes a sense of achievement through the completion of the artwork. It also promotes eye-hand coordination and fine motor skills, as well as participants' ability to focus.

INTRODUCTION PHASE

1. Introduce activity by showing participants the materials involved, including acrylic paints, brushes, pieces of craft paper and fabric, and suitable plant materials.

Pass around samples of leaf prints created by other older adults to show that the task is achievable. Explain that leaves form interesting patterns when used as stamps for printing on craft paper or fabric.

ACTIVITY PHASE

2. Share the plant materials that have been pre-prepared, craft papers, acrylic paints, dishes to hold the paints, craft paper, and pieces of fabric. Invite participants to gather more materials from the garden, if permitted.

Explain that the leaves selected should be fresh as dried leaves will snap and crumble when pressed.

3. Demonstrate the steps of leaf printing:
 - o Pat the leaves dry with a piece of cloth.
 - o Paint one side of the leaf generously with acrylic paint, using paint brush.

Work on one leaf at a time.

- o Flip the painted side down onto the craft paper or fabric. Press the leaf down firmly to ensure that the entire leaf contacts the paper or fabric.

Test on newspaper first to check the print.

- o Repeat the process for the other leaves to form a pattern on the craft paper or fabric.

4. Give participants ample time to select and gather plant materials and plan the leaf print. Ask participants to mark their name and date of activity on the back of the artwork. *If participants are worried about getting paint on their hands, offer disposable gloves for them to wear. Facilitators should sit with participants and provide assistance at all stages if necessary.*

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Show the finished prints to the group and highlight the interesting points of each work.



MAIN MATERIALS

Fresh leaves of different shapes

Acrylic paints, dishes to hold the paints, brushes, disposable gloves

Craft papers, pieces of fabric

Samples of leaf prints

PLANNING NOTES

- Facilitators should pre-identify plants in the garden that have suitable leaves for the artwork and talk to participants about these plants during material gathering.
- Cover the worktable with old newspapers for protection from paint.
- The prints may be finished with a varnish spray for longer-lasting colour.



Planting Succulents

ACTIVITY GOALS

The activity leads to an opportunity to care for the succulents, encouraging a sense of purpose, meaningfulness, and hope. The sensory components of succulent plants promote curiosity, interest and engagement.

INTRODUCTION PHASE

1. Pass around the different types of succulents. Explain the process of creating a mini garden in a glass jar.
Encourage participants to gently touch the different succulents and compare their textures. Explain that succulents need little water and are well-suited for open jar gardens.

ACTIVITY PHASE

2. Share the glass jars, planting media, coloured gravel, dishes, and succulents.
Invite participants to choose two succulents for each jar that they think will look nice together.
3. Demonstrate the steps of creating the mini succulent garden:
 - Scoop white gravel into the bottom of the jar, filling to about 1 cm deep.
 - Add approximately 1 cm of crushed charcoal.
Explain that this layer of charcoal helps to absorb excess moisture.
 - Add a mix of damp potting soil and sand to jar.
 - Remove succulent from pot and gently shake off excess soil, taking care not to damage the roots.
Encourage participants to observe the roots; many succulent roots are brightly coloured.

- Create two holes in the soil of the jar, by pressing the handle end of a spoon into the media.
- Place the succulents into the media, tamping the media down firmly to hold the succulents in place.
- Place a layer of white or coloured gravel on top for decoration.

4. Give participants ample time to create their mini succulent garden. Ask them to mark their name and date of activity on the jar with masking tape.
Facilitators should sit with participants and provide assistance at all stages if necessary. Provide suggestions on the colour choice or design only if participants ask.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Invite participants to talk to the group about their succulent jar.
6. Discuss the on-going care of the succulent gardens and provide take-home instructions.
Explain that the jars should be placed next to the window, rather than in direct sun. The succulents should be watered sparingly and be allowed to dry out between watering. Remind participants that there are no holes for water to escape and to water lightly, as needed.

MAIN MATERIALS

Clean, dry glass jars

Gravel (white and coloured), crushed charcoal, potting soil, sand, dishes, spoons

Small, non-cacti succulents



PLANNING NOTES

- You may consider providing more succulents for participants to take home.
- Encourage participants to make mini succulent gardens as gifts.



Making A Terrarium

ACTIVITY GOALS

This activity promotes creativity as the participants design a garden in an enclosed container. Preparing and planting the container provides opportunities for fine and gross motor skills, eye-hand coordination and concentration. The terrarium activity leads to an opportunity to care for the mini garden, encouraging a sense of purpose, meaningfulness and hope. Designing the miniature garden helps to orient participants to the present task and improves cognitive functioning.

INTRODUCTION PHASE

1. Introduce the activity by describing terrariums as fascinating plants grown in glass containers.
Provide examples of different terrariums with samples or images.

ACTIVITY PHASE

2. Share a variety of containers of different shapes as well as pre-selected plants.
Encourage participants to feel the texture of the leaves, notice the colours and smell the plants before choosing.
3. Demonstrate the steps of creating a terrarium:
 - o Fill the container with 3 cm of small rocks or gravel.
Explain that this layer helps with water drainage.
 - o Add 3–5 cm of potting mix.
 - o Select the plants for the terrarium.
Encourage participants to plan out the placement of the plants in the terrarium before planting.
 - o Remove the plant from the pot and gently remove excess soil from the roots. Use a spoon or tongs to make a hole in the soil and nestle the plant in, tamping the soil down firmly to hold it in place. Repeat for each plant.

MAIN MATERIALS

Different varieties of small foliage plants such as the Nerve Plant, Watermelon Peperomia, Friendship Plant, Spikemoss

Gravel, moss, potting mix, tongs and spoons

Containers with lids, decorations

If the container opening is narrow, suggest the use of tongs to insert the plant.

- o Add a thin layer of coloured gravel or moss around the plants. Add decorations if desired.

Encourage participants to choose decorations that match their terrarium theme or style.

- o Water the plants lightly.

4. Give participants ample time to plan and arrange the plants in the terrarium. Ask participants to mark their name and date of activity on the terrarium.

Facilitators should sit with participants and provide assistance at all stages if necessary. Provide suggestions on the colour choice or design of the terrarium only if participants ask.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work and inviting each participant to share their finished terrarium with the group. The terrariums may be displayed on a table for the group to view.

Encourage participants to talk about their plant choices in the creation of their terrarium.

6. Discuss the on-going care of the terrarium and provide take-home instructions.

Explain that the terrariums should not be placed in direct sun and that the soil should be kept moist. If the terrarium is closed, the water will recirculate within the container and not need much watering.



PLANNING NOTES

- The terrariums must be transported carefully in an upright position; consider an appropriate carrying method.
- If glass containers are a safety concern, use plastic containers. Consider recycled ones.



Arranging Flowers

ACTIVITY GOALS

This activity promotes creativity as participants make floral arrangements in recycled cans. Designing the floral piece helps to orient participants to the present task and improves cognitive functioning.

INTRODUCTION PHASE

1. Introduce the activity by describing how floral arrangements can be used as pleasant displays for table tops. Explain that used containers can be cleaned and upcycled to hold the floral arrangements.

Provide samples or images of different floral arrangements in upcycled cans.

ACTIVITY PHASE

2. Share cans that are decorated with a variety of craft paper, as well as different floral arrangements.
3. Pass around the cans, flower and foliage stalks, sponges, craft paper and glue.
Encourage participants to smell the different flower and foliage stalks. Consider pre-preparing a few cans with craft paper for participants who may struggle with wrapping the cans.
4. Demonstrate the steps of arranging flowers and foliage:
 - o Decorate the can by gluing the craft paper around the outside. Coloured strings may be used to tie around the can, for added visual effects.
 - o Insert the sponge into the can provided, and trim off any excess.

Explain that the sponges have been pre-soaked for an hour to retain water and keep the flower and foliage stalks from drying out.

- o Plan and insert selected flower and foliage stalks into the sponge, as desired.

5. Give participants ample time to to decorate the cans, plan and arrange the flower and foliage stalks into a floral arrangement. Ask participants to mark their name and date of activity on the can.

Facilitators should sit with participants and provide assistance at all stages if necessary. Provide suggestions on the colour choice or design only if participants ask.

CONCLUSION PHASE

6. Conclude activity session by praising the group's work and inviting each participant to share their finished work with the group. If needed, the floral pieces can be displayed on a table for the group to view.

Encourage participants to talk about their choices and the meaning in the creation of their floral arrangement.



MAIN MATERIALS

Flower stalks, foliage stalks

Sponges (pre-soaked for an hour), recycled cans, craft paper, coloured strings, cutting knives, and scissors

PLANNING NOTES

- The floral arrangements must be transported carefully in an upright position; consider providing appropriate carrier bags.
- Smoothen the edges of the cans before handing to participants, as a safety precaution.



Creating Rock Art

ACTIVITY GOALS

The primary goal of this activity is to get participants to exercise imagination – a cognitive process that is engaged less often as people age. Painting helps improve eye-hand coordination, fine motor skills and a range of cognitive abilities, including the ability to plan and concentrate. The activity gives participants a sense of purpose, encourages creativity and helps build confidence.

INTRODUCTION PHASE

1. Introduce activity by showing participants the materials involved, including pre-stencilled rocks, acrylic pens, paint brushes, and paint.

Pass around samples of painted rocks created by other older adults to show that the task is achievable.

ACTIVITY PHASE

2. Explain that a variety of outlines have been pre-drawn on the rocks for participants' selection.
Offer blank stones should any participant wish to create their own drawing.
3. Demonstrate painting on the rock using acrylic pens and paint.
This can be done with the entire group together or in smaller subgroups depending on the cognitive abilities of the participants.
4. Pass around the pre-stencilled rocks for participants to choose from, and spread out the pens, brushes, and paints on the table.

Encourage participants to feel the curves of the smooth stone and how it fits in their hands. If promoting mild exercise, place the materials on another table to encourage movement.

5. Give participants ample time to plan and carry out their artwork and encourage them to talk with each other about their choices and designs.

Ask questions to encourage conversation if needed.

Facilitators should sit with participants and provide assistance at all stages if necessary. Provide suggestions on the colour choice or design only if participants ask.

CONCLUSION PHASE

6. Conclude activity session by admiring the group's creativity and inviting each participant to share their finished rock art with the group.

Encourage participants to share their favourite part of their rock art or the session. If needed, the facilitator can show each rock art piece, highlighting the interesting points of each creation.



MAIN MATERIALS

Garden stones (blank ones and pre-stencilled ones), pre-painted rocks

Medium-sized paint brushes

Acrylic paints of different colours, acrylic pens

PLANNING NOTES

- The rocks may be finished with a varnish spray for longer-lasting colour.



Making Potpourri

ACTIVITY GOALS

This activity involves using flower petals for potpourri sachets with lasting fragrance. The process promotes fine motor skills, coordination as well as participants' ability to focus. It encourages reminiscence through sensory stimulation and promotes a sense of achievement through making something usable.

INTRODUCTION PHASE

1. Introduce the activity by explaining how fresh flower petals can be processed to become potpourri.
Explain that the beauty and fragrance of flowers can be extended by drying them for use in potpourri. Roses and lavender are suitable flowers for making potpourri. Show samples and encourage participants to smell and touch.

ACTIVITY PHASE

2. Pass around the rose stalks, racks from the dehydrator and bottles of different essential oils.
Encourage participants to smell the roses and different essential oils.
3. Demonstrate the steps of making potpourri:
 - Peel the petals carefully from the rose flowers.
Encourage participants to smell the fresh petals.
 - Place them on the dehydrator rack.
Make sure the petals do not overlap.
 - Place the racks in the dehydrator to dry for about 45 minutes.
This is a good time to take a walk in the garden and search for plants with different fragrances

- Remove the racks from the dehydrator.
- Pick the dried petals and place them in containers.
Encourage participants to smell the dehydrated petals and note the difference in colour.
- Add essential oil, as desired.
Remind participants that a few drops go a long way.
- Close the container with the cover, and shake.

4. Give participants ample time to plan and carry out the work.
Facilitators should sit with participants and provide assistance at all stages if necessary.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Encourage participants to pass around the potpourri containers and smell the different fragrances.
Ask participants to talk about which essential oils are their favourites. Pass around sachets for them to bag the potpourri at home.



MAIN MATERIALS

Samples of potpourri
Variety of essential oils
Rose stalks, containers
Dehydrator
Sachets

PLANNING NOTES

- If there is a time constraint, a batch of dried petals may be prepared beforehand. Participants may add essential oils to the pre-prepared batch. Alternatively, this activity can be split into two consecutive sessions.
- Facilitators should check the temperature of the dehydrator and racks before participants touch them, as a safety precaution.
- The dried petals should be left in the containers for a week, for the fragrance to be absorbed.



Printing with Vegetable Cuttings

ACTIVITY GOALS

The activity promotes eye-hand coordination and fine motor skills, as well as participants' ability to focus. It provides an opportunity for creative expression and promotes a sense of achievement through making something usable and artistic.

INTRODUCTION PHASE

1. Introduce activity by showing participants the materials involved, including acrylic paints, brushes, vegetables and tote bags.

Pass around samples of tote bags with prints created by other older adults to show that the task is achievable.

Explain that vegetables may be cut to form interesting patterns.

ACTIVITY PHASE

2. Share the vegetables that have been pre-prepared, tote bags, acrylic paints, and dishes to hold the paints.
3. Demonstrate the steps of leaf printing:
 - Cut the different vegetables.
 - Wipe dry with a piece of cloth.
 - Paint generously with acrylic paint, using a paint brush.
Cut one vegetable at a time.
 - Flip the painted side of the vegetable down onto the tote bag. Press the cutting down firmly to ensure that it contacts the bag entirely.
Test on newspaper first to check the print. Remind participants to hold it still if they want a clean paint print.
 - Repeat the process for the other cuttings to form the desired pattern on the bag.

MAIN MATERIALS

Plain tote bags with handles, pre-made tote bags

Paint brushes, fabric paints of different colours, towels or cloth scraps

Cut vegetables and fruits (e.g. lady's-fingers, Chinese cabbage, onions, lotus roots, oranges)

4. Give participants ample time to test, plan and print different print patterns on the tote bag.

Facilitators should sit with participants and provide assistance at all stages if necessary. They should be ready to assist with cutting if there are safety concerns with any participants.

CONCLUSION PHASE

5. Conclude activity session by praising the group's work. Show the finished bags to the group and highlight the interesting points of each work.

Share care instructions for the bag. Advise participants to iron the printed area over a piece of paper, after the paint is completely dry, to fix the paint.



PLANNING NOTES

- The hand-made tote bag is a nice take-home gift for participants.
- If tote bags are not available or cost-prohibitive, you can provide handkerchiefs or fabric squares instead.