Cooperative Extension’s Ability Garden presents

“Peat Pots” and Sunflower Planting

This hands-on activity can be used to explore the concepts of recycling, seed germination, life cycles and basic plant needs. It is a wonderful illustration of low cost gardening with participants making biodegradable, newspaper ‘peat’ pots to grow a sunflower seedling. The activity can be approached as a multi-part session or two different activities. Both approaches have their own strengths.

Precautions:
The use of recycled newspaper can result in ink-stained fingers. Rinse soaked paper to reduce presences of dyes and remain mindful of skin sensitivities / contact with broken skin. Ingestion of inks used on newsprint should not be an issue because the ingredients used in the inks are not considered toxic in either the liquid or dry state (Ohio State University http://ohioline.osu.edu/cd-fact/0122.html).

Target population: 4 years to adulthood

Activity Treatment Goals: Goals and outcomes can be tailored to population and individual participants and can include:
- Promotes use of fine motor skills
- Promotes increased cognitive awareness
- Provides an opportunity for social interaction
- Promotes sensory stimulation and awareness

Completion Time: 45 – 60 minutes

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**Materials Needed:** You will need the following materials to complete this project:
- Newspaper, torn into inch wide pieces
- Large container for soaking newspaper (may retain black stain after washing)
- Small basins, with low sides, to hold soaked paper for each participant
- Wide-rimmed plastic cups as ‘peat’ pot molds
- Potting soil (do not use brands with slow-release fertilizer mixed in)
- Small shovels (large spoons can also be used)
- Small dowel / dibbles to make hole for seeds (fingers work just fine!)
- Sunflower seeds (dwarf varieties if participants plan to grow on in containers)
- Bowls for passing seeds around
- Materials to clean up soggy work spaces at end of program
- Wet wipes or hand wash station

**Pre-session Preparation:** You will want to do the following before the activity begins:
- Make a sample, to use as a visual aid and so you are comfortable with all the steps. It will take 4-5 days to dry out an example ‘peat’ pot. It is a good idea to plant one out and have a sprouted sunflower seedling to show the group.
- Pre-soak enough newspaper for each participant to fill a small basin. It will turn to pulp more quickly in warm temperatures (~3 days) but has the potential to turn sour if left for too long.

**Step-by-Step Instructions:** Discussing sunflowers, their size, color, comparisons with other flowers etc., is a great way to develop group interaction and introduce the activity. Colored pictures can be used if you do not have access to real plant material. From experience, it brings this activity up a level if participants have the opportunity to actually dig seeds out of a sunflower. This can extend sensory exploration and create greater understanding of the final product.

**Making the Newspaper ‘Peat’ Pot:**
1. Pass around small basins of newspaper mush and demonstrate how paper was torn and soaked to create the papier-mâché. Have participants tear the pulp into smaller parts. How does it feel? Is it wet, cold, squishy, ‘yuk’, fun?
2. Pass around the plastic cup molds and demonstrate squishing the paper pulp into shape. The pulp should be wet as the water helps create an even layer.
3. Have participants mold their pots. The sides should be an even thickness (~1/2 inch) and the bottom molded well to the sides.
4. Turn cups upside down and squeeze out excess moisture. Clear area of papier-mâché and in order to be ready to plant seeds.
Planting the Sunflower Seed:
6. Have participants add a small amount of water to the potting soil until it is evenly moist.
7. Fill pots to the top of the container and gently firm down. Discuss the need for roots to grow and push through gaps in the soil.
8. To make a planting hole in the soil, use index finger or dowel rods. The seed will not sprout if planted too deeply. Your first finger joint is a good guide for planting depth.
9. Pass seeds around table and ask participants to select two seeds. Have several different sizes and colors available.
10. Plant two seeds in the soil. If both germinate, one can be transplanted or trimmed down so that the other has optimal growing space.
11. Gently cover seeds and use spray bottles to moisten the soil. If seeds are planted in the same session as making the ‘peat’ pots they should not require additional watering until seedlings have grown. The water will be drawn out of the paper and into the soil.

Discuss growing needs if project is being taken home by participants, otherwise, place them in a sheltered, warm, well lit position. Check daily for signs of growth.

Enrichment Opportunities:
- Discuss annual lifecycles of sunflowers, from seeds to flower to seed. This can be related to the cycles of other plants, animals and people.
- Discuss what seeds need to sprout (germinate): water, light, soil.
- Discuss basic plant care needs: competition, root growth, protection from weather extremes.
- Discuss pollination and habitat connections. There are possibilities to provide materials on recycling in your community.

Performance Areas:
- **Sensory**: Working with wet newspaper ‘mush’ and molding a pot can be messy and fun.
- **Education**: This activity provides an opportunity to recycle trash like old newspaper and turn it into a useful pot. This activity can also be used as a hands-on life cycle lesson: hard, dry seed will grow into a beautiful sunflower.
- **Vocation**: The activity involves multi-step directions and determination of how much is enough (sides and bottom of pot must be thick enough to hold its shape but still have room for the seed to grow).
- **Rehabilitation**: Activity requires practice of fine motor skills, sensory awareness and positive social interaction.
- **Leisure/Recreation**: The activity creates opportunities to partner, be helpful, laugh and have fun.

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