

Activity: Nature Goal: Cognitive/Intellectual Populations: All

TH Activity Plan – Does (Leaf) Size Matter?

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ACTIVITY DESCRIPTION: Participants will gather, sort & compare leaf sizes & shapes.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Compare, sort & categorize leaves; expand horticultural knowledge; expand reasoning skills

Physical: Extend lateral & vertical reach; improve sensorimotor skills

Psychological/Emotional: Consider & discuss importance of size for people & plants; explore feelings of inadequacy/smallness/sizeism

Sensory: Expand tolerance & willingness to engage in sensory tasks

Social: Practice mentalization; practice relational functioning; improve communication skills

Materials

Bags to collect leaves

Gloves, wipes

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather materials.
2. Facilitator begins session by asking participants if size matters, facilitating a discussion asking for benefits and disadvantages of being small or big in people or plants. Include some ideas for both: large leaves produce more photosynthesis, larger plants produce larger fruit vs smaller plants which can be better size for gardens or containers, sweeter flavor may be from smaller plants (strawberries) etc. Facilitator should ensure both positive & negatives are discussed. A deeper discussion of aspects of this topic will conclude session.
3. Facilitator leads group outdoors to gather leaves of varying sizes & shapes from same & different plants. Suggested number of items will be based on group size, availability of plants etc. Working in pairs may be recommended. Collection bags & gloves are distributed.
4. Once leaf gathering is completed, participants sort, order & categorize leaves. Facilitator asks participants to order leaves in specific ways (smallest to biggest, ones with yellow tones, leaves with points).
5. [Discussion of leaf differences](#) (color, size, texture, smell) promotes reasoning & comparison skills, communication skills & mentalization. Returning to the opening question – does size matter – can raise the question/discussion for exploring feelings associated with human size, societal pressure, & personal inadequacy. Session ends on a positive note that all sizes are important & have pros & cons.

APPLICATIONS FOR POPULATIONS: Opening with the question – does size matter – lends itself to many avenues and therapeutic goals. For some populations, the focus of the session might be on reasoning skills where sorting, matching, and categorizing leaves by size can strengthen cognitive skills. These skills are critical for child development and will be used throughout the lifespan. People with intellectual disabilities may develop their executive function skills using leaves in this context. Adding an additional element of leaf shape can broaden reasoning skills and horticultural knowledge (Whiting et al., 2023).

For groups where psychological goals may be the focus, the theme of size can be examined in several directions. Psychological goals can be geared to a group based on their needs, for example, eating disorder populations, people with disabilities, or adolescence, where size often varies due to growth spurts. Many individuals and populations are fixated on size, often due to social media. Addressing this issue, particularly with young people can be challenging. Using plant metaphors and plant leaves can prompt discussion on related topics of feeling inadequate, societal pressures, benefits of being small or large. Using plant examples where both small and large sizes offer benefits and challenges can expand both horticultural knowledge and psychological perspectives. Size of both plants and people can be due to inherited genes, while other factors may contribute to growth, growth spurts and maturity. Size and sizeism, discussed in [THAD Tree Shaped Ornaments from Buttons](#) can provide additional information to guide this TH session.

Large Size	Benefits	Challenges
Plants	More photosynthesis, larger fruit, better climate control, ability to absorb (low) light well & water, especially horizontal leaves, provides habitat for animals	Requires more inputs like water, fertilizer, fruit may not be as sweet, larger plants typically more expensive, water loss higher (evapotranspiration), exposure to wind/elements higher
People	Strength, reach, easier to be seen/heard/noticed- could be benefit or challenge	Finding sizes in clothing, fitting in planes, cars, chairs etc.
Small Size	Benefits	Challenges
Plants	Dwarf varieties appropriate for some sites, less inputs (water, fertilizer), reduced water loss, easier management of plants, better adapted to dry soil, wind damage & cold temperatures due to vein structure & surface (Science Daily, 2011)	May not be able to adapt to drought as well, more frequent watering, easy to overlook in the garden in terms of care or being stepped upon, perhaps less noticeable
People	Small but mighty, focus on intellectual skills vs physical attributes, agility, lower center of gravity, fit in spaces more easily, perhaps less expensive overall in terms of food consumption	Some of the same challenges as larger people: sizing of clothing, shoes, car seats, reaching items in kitchen or elsewhere

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Toxic plants in the garden setting should be identified or labeled so participants avoid touching or gathering them. [Some common toxic plants and leaves](#): poison ivy, oak, sumac, tobacco, oleander, foxglove, ivy, azalea, castor bean, begonia, bleeding heart (*Dicentra* spp.), butterfly weed (*Asclepias* spp.), frangipani, and milkweed (*Asclepias* spp.). Refer to University of California link below, which includes information on the four toxicity classes.

NOTES OR OTHER CONSIDERATIONS: This topic can be very sensitive. Understanding the participants and their emotional stability, triggers and ability to participate in a session with this focus needs to be carefully assessed. Co-treating with mental health or eating disorder specialist would provide professional services if needed.

REFERENCES/ RESOURCES:

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 Whiting, D., Roll, M., & Vickerman, L. (2023). [Plant structures: Leaves](#). *Colorado State University Master Gardener Extension*.

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TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2024.