

TH Activity Plan – Plant Sounds

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ACTIVITY DESCRIPTION: Participants will be introduced to sounds plants can make using a bio-sonification digital device.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Expand plant knowledge; expand creative thinking

Physical: Strengthen listening skills Investigating noises from plants

Psychological/Emotional: Expand understanding of creative ideas & their impacts on individuals & society

Sensory: Use auditory senses during session; practice sensory integration; enhance mood through sensory stimulation

Social: Experience new technology in a group setting; expand tolerance of people & things

Materials

Variety of plants

Bio-sonification device, water

STEP-BY-STEP PROCESS:

1. **Pre-Session Preparation:** Gather a variety of plants. Have a plantwave or similar bio-sonification device.
2. Facilitator begins session by introducing the concept of plants making sounds that are audible to humans. Ask participants if they believe this, have ever heard of this, and what types of sounds plants might make. Exaggerating possible plant sounds can create laughter!
3. Using a bio-sonification device, facilitator tells group that plants will “talk” to them now, sometimes called making music. Demonstrating how the device works (see below), sounds from the plants are emitted during the session, to the amazement of the group. Most people will not have heard plant sounds before in this manner.
4. Expanding on this theme of music from plants, the device can be used, with their permission, to listen to music from individual participants. "Let's listen to the beautiful music that is inside of you." They can each hold the metal clips and, in actual sessions, listened intently to each other's songs. Discussions on various topics can be guided by the interests of the participants (types of plants, talking to plants promotes growth, [plants talking to other](#) plants (sound & chemical (VOC) signals), technology assisted living, or on-going plant innovations).

APPLICATIONS FOR POPULATIONS: Fascination with nature and moments of awe, as well as cognitive stimulation, a focus on auditory skills and/or tolerance of other people and things can become part of a TH session using bio-sonification plant wave sounds. Introducing the concept and observing/hearing plants “talk” or make “music” will be new for many. Multiple therapeutic goals can be integrated into the session. For some groups, like memory care residents, using auditory skills to listen to plants may be a priority. For medical adult day programs, using plant music to demonstrate differences can be used as a metaphor for people with different

appearances or behaviors, expanding the concept of tolerance, always a challenge in residential and group settings. People residing in nursing homes, often with limited stimulation, can be challenged (playfully) to consider plants making music, what plant music sounds like, and creative use of technology.

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts.

Poisonous plants to be avoided: Spiderwort (*Tradescantia sillamontana*), Elephanthead Lousewort (*Pedicularis groenlandica*), Gloriosa Lily (*Gloriosa superba*), Rubber tree (*Hevea brasiliensis*), Snake plant (*Dracaena trifasciata*) and Sensitive plant (*Mimosa pudica*) with leaves that fold up when touched; these poisonous through ingestion or sap contact on skin.

NOTES OR OTHER CONSIDERATIONS: Explaining how plants make sounds using the software - "The variation [in electrical resistance between two points] in the connection is largely related to how much water is between those two points, which changes a lot as the plant is moving water around while it's photosynthesizing... Then we graphed that change as a wave, and then we translate that wave into pitch, so then essentially we're getting a stream of all these pitch messages coming from the plant. The pitches then enter the device's software, which features different electronic instruments — the flute, harp, piano, guitar, bass and some synthesizers among them — that you can elect for the plants to "play," then scaling them to be harmonious. A symphony (of sorts), generated by algorithms and leaves" (Shapiro, quoted in Haigney article, 2020). Several bio-sonification devices like *Plant Wave* and *Music of the Plants* provide ambient noise from plants.

Children and youth find this session on plant sounds interesting too. Often familiar with technological devices, they will quickly understand the bio-sonification devices in today's tech-rich environment. However, to see the device, observe and hear the different sounds from various plants can capture their imagination, stimulating creative thought. Exposure to such devices can spark interest in science, plants, and technology. Addressing the topic of tolerance can be effective in this session, with different plants (and people) emitting different sounds or music.

Plants that have strong electrical stimuli inside are suggested for this session. Some plants like a resurrection plant or Venus fly trap are delicate and are not as effective for use with the bio-sonification device. Experiment or have the participants experiment to find plants that are "loud" talkers or musicians.

Related THAD: [Sounds From Gardening](#).

REFERENCES/ RESOURCES:

Haigney, S. (2020). [The lessons to be learned from forcing plant to play music](#). NPR.org.

Hanano, A., Murphy, C., & Murphy, DJ. (2022). [Plants can "speak" to each other](#). Kids.frontiersin.org.

Plant Wave. (2023). [Is PlantWave real? The science behind PlantWave](#). Plantwave.com.

Poon, F. (2023). [Outside/inbox: Can plants talk to each other? \[radio podcast\]](#). New Hampshire Public Radio.

Edits were made for THAD purposes in 2025.

TH Activity Plan form developed by Lesley Fleming, Susan Morgan and Kathy Brechner (2012), revised in 2025.