

Activity: Plant Care Goal: Social Populations: All but dementia

## TH Activity Plan – Mixing Soil

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Photo by Modern Farmer



**ACTIVITY DESCRIPTION:** Participants will work as a group creating a soil mixture by combining several ingredients in their individual pails, creating a larger amount of soil.

**THERAPEUTIC GOALS:**

**Cognitive/Intellectual:** Expand knowledge about soil composition; strengthen working memory

**Physical:** Strengthen hand & pincer grip

**Psychological/Emotional:** Cope with spills or errors

**Sensory:** Use sense of touch to deepen understanding of soil component parts; strengthen motor skills integration

**Social:** Mentalize and understand individual's role with others; improve relational functioning in a group setting

**Materials**

Variety of soil components (sand, compost or worm castings, pine bark, peat moss or coir, perlite or vermiculite.

Individual pails, larger bins with scoops, largest bin for mixed soil, stirring utensils

Gloves, wipes, masks

**STEP-BY-STEP PROCESS:**

1. **Pre-Session Preparation:** Gather materials including soil components, containers, scoops of various sizes, & large bin for mixed soil.
2. Facilitator begins session by introducing activity – mixing soil. Explaining soil composition, with samples, & why “recipes” for soil might vary depending on plants, geography, use in containers vs in ground beds. Therapeutic, educational & horticulture knowledge can be integrated & adapted for all ages & abilities.
3. Explaining the assembly line method, each participant gets their own pail or container. Several bins with different soil components are lined up in a row. Participants begin walking along the assembly line one at a time, putting 1 scoop of soil component into their pail from each of the soil components. Depending on amount of soil mixture desired (& determined by facilitator ahead of time for loamy vs silty type of soil), a scoop that will measure out the “right” amount is placed in the bin.
4. Participants do not have to count, they just use the scoop in the appropriate size in each bin. All ingredients are mixed together at the end of the line & the mixing utensil is left there for the next person (spoon, stick, paint stir stick). Participants dump their soil mix into the larger bin, creating a larger amount of soil.
5. Concluding the session, facilitator discusses how working together can create something larger than through individual effort. Quantifying the amount of soil mixed in the session can reiterate this point. Emphasizing points like the role each person played, how cooperative work achieved the success (large amount of soil now available for use in subsequent session or planting a bed), and how most activities involve others, practicing this type of cooperative work can be useful in all tasks big & small.

**APPLICATIONS FOR POPULATIONS:** “*Mentalization* refers to the process by which we make sense of each other and ourselves, implicitly and explicitly, in terms of subjective states and mental processes. Mentalization is central to the individual's ability to function effectively in the relational world” (Fanagy et al., 2002). It is part of

clinical interventions referred to as psychodynamic therapies. Mentalization can be used in TH sessions. The focus as a social goal would include improving participant's abilities to interact with others, family, friends or workmates. Using hands-on tasks like mixing soil, preparing garden beds or planting a vegetable garden can focus on horticulture tasks that are best completed with cooperative interactions among people. This can include each participant doing a single task contributing to a greater whole or finished product – one person plants carrots, another person plants onions. Or alternatively, each person does the same task like mixing soil, where combined efforts achieve a specified and greater amount of soil. Either option can help participants recognize, experience and hopefully understand the sums of the part contributing to the greater whole (task).

Mixing soil, combining component parts for a good soil mixture can be a TH activity appropriate for most populations. The exception would be people living with dementia who might be tempted to put items into their mouths. Some soil components like perlite are unsafe for human consumption. Wellness groups, students, and people with physical disabilities can easily be accommodated by placing soil parts on appropriate height tables, providing containers sized to suit physical abilities (small light pails for those with small hands, grip challenges, or upper torso strength deficits), and accessible work areas free of tripping hazards with smooth surfaces suitable for mobility impaired participants in wheelchairs or walkers.

**SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts.** Avoid inhaling materials particularly perlite which should be wet down before using. Gloves and masks should be available.

**NOTES OR OTHER CONSIDERATIONS:** The Junior Master Gardener program offers several activities related to soil, explaining soil in the context of an aggregate with multiple ingredients (p.25). The main part of soil is typically rock broken into tiny particles, along with sand, silt, clay, and organic matter. Soil is also described as 45% mineral matter, 5% organic matter, 20-30% water, and 20% air.

Different soil mixtures are used for different purposes. Vegetable, berry and ornamental crops prefer [loamy soil](#). Root vegetables, fruits, herbs, shrubs and bulbs grow well in sandy soil with gritty or grainy texture. Peaty soil with high levels of decomposing organic materials is good for some vegetables like legumes and lettuce, as well as azaleas and grass. Other types of soil—chalky, silty and clay soils—may be better for other plants depending on their water retention needs, drought weather conditions, and pH preferences.

Soil mixtures typically include 1 part peat moss, 1 part perlite and 2 parts compost. [Recipes for mixing soil](#) will vary but common ingredients include some combination of sand, compost or worm castings, pine bark, peat moss or coir (a byproduct of coconut processing), perlite or vermiculite.

#### **REFERENCES/ RESOURCES:**

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Edits were made for THAD purposes in 2024.

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