

Activity: Nature Goal: Sensory Populations: Children/Youth

TH Activity Plan – Georgia Red Clay Soil: A Sense of Place

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Photo by Hood Mining

Adapted from Junior Master Gardeners Teacher/Leader Guide Part 1. (1999). Touchy feely. *Texas Agricultural Extension Service*.



Materials

Red clay soil, silt, sand, bins, labels for soil particles

White board, markers

Non-latex gloves, wipes

ACTIVITY DESCRIPTION: Participants will explore personal identity & sense of place by learning about Georgia's red soil in their home state.

THERAPEUTIC GOALS:

Cognitive/Intellectual: Expand science knowledge; expand scientific inquiry process

Physical: Develop pincer grip & hand dexterity by touching soils

Psychological/Emotional: Explore self-identity; explore sense of place

Sensory: Expand ability, tolerance & willingness to engage in sensory activities; address sensory defensiveness to sensory stimuli; practice sensory integration

Social: Practice responding appropriately to social cues; use conscious discipline for self-regulating behavior

STEP-BY-STEP PROCESS:

- 1. Pre-Session Preparation:** Gather soil components & red clay soil if possible. Set up soil particle stations (sand, silt & clay) & a clean-up station. Consider doing a soil separation activity ([Shake, Rattle, 'n Roll](#) available in the JMG handbook) the day before. While it's fun for students to do, it requires ~24 hours to settle out. If done ahead of time, it will really reinforce the lessons here.
2. Facilitator begins session by asking participants/students if they have seen red soil in Georgia. It may be present in their part of the state or they may have travelled to locations where they have seen it. How would they describe the color & what was growing in it?
3. Facilitator/teacher presents a short lesson with soil facts: soil is composed of 3 pieces called particles of different sizes – sand (largest component), silt (next largest) & clay, the smallest part of soil (JMG, 1999). Different soil has different amounts of each of these. Georgia red clay soil has more clay than other places. Additional science facts and [lessons](#) are listed below.
4. Participants move from one station to the next in any order, feeling the different soil particles (wearing gloves), experiencing the textural & color differences. Stations/soil particles should be labeled. Flour can be substituted if fine silt is unavailable.
5. Facilitator/teacher asks students to describe the 3 soil particles, using white board for visual recording. Students are asked why soil might be red, with an explanation given after students hypothesize why.
6. Facilitator brings red clay soil out, if not already included. Ask participants about a memory they have of Georgia red clay (i.e., a long dirt road, ruts in the driveway, the red stain from rain splash on Grandpa's garden shed, soil clumps on the kitchen floor when Mom comes in from the garden, the feel of clay squishing between their toes when playing in the rain). Participants are then asked if they will think of Georgia with red clay soil later on, when they may move away or when telling family about the day's session.

Is it something to remember where they lived? Do they have memories of red clay from other places they have lived or visited? Are these happy and positive memories? Do they make you wish you were there?

APPLICATIONS FOR POPULATIONS: Children’s sense of place, linked to a sense of belonging contributes to social and emotional development and serves as a foundation for child development that will be used throughout the lifespan (Epstein, 2009; Brillante & Mankiw, 2015). This sense of place, of feeling connected to a specific geographical area (physical addresses or regions)—are where people *feel* at home. This can include plants, landmarks, schools, and experiences. These become part of an identity. People recall childhood trees, apple picking, making mudpies, and grandma’s garden. Sessions delivered as educational lessons or therapeutic horticulture can contribute to the development of a sense of place, in this example, for school-aged children.

What in Georgia can suggest a sense of place? For some children (and adults) this could be the red clay of Georgia, so distinctive and remarkable in color. Using this iconic aspect of Georgia to develop a sense of place, and incorporating hands-on learning can address both intellectual development/knowledge acquisition and therapeutic goals, where appropriate. Psychological goals of building self-identity using sense of place can be a positive health outcome.

For children with sensory challenges, touching the different soil components may be challenging. Using non-latex gloves can reduce sensory defensiveness. Some of the particle types may be less offensive (dry sand vs wet clay may be tolerated more easily). Trained therapists or other professionals will be able to gauge the appropriate level of engagement with tactile materials. Children’s needs and requests including not participating, should be respected. This session may include information for assessments, noting [tactile defensiveness](#). Referrals to other health professionals or education specialists may be appropriate.

SAFETY CONSIDERATIONS: Facilitators are responsible for knowing poisonous and toxic plants and plant parts. Non-latex gloves should be available and encouraged during the session. Assistance putting on gloves may be required. Minimize dust from sand and silt, asking children to not stir up dust. Direct participants to not put anything in their mouths and to properly place soiled gloves in identified garbage. Follow glove removal by hand washing (gloves may have been punctured). Monitoring number of gloves will deter them from being kept or used for inappropriate purposes (such as tricks).

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NOTES OR OTHER CONSIDERATIONS: Red clay soil is very distinctive. It is present in much of the state of Georgia, but not all regions. Its color comes from iron oxides due to weathering. A combination of soil elements like silicon and aluminum, among others, are called saprolite. Red clay soil is considered fertile with nutrients and water but can be heavy and not as effective for certain plants and crops (Coleman, 2017). Clay soil typically has less nitrogen and organic and phosphoric acids, which impacts its fertility. Not technically clay, Georgia’s soil is classified as [Ultisol](#) (Georgia 4-H, 2024; USDA Natural Resources Conservation Service, 2025).

Georgia’s soil, including red clay soil, contributes to crop production. Georgia grows the majority of the U.S.’s peanuts, along with cotton, watermelons, and pecans. Plants that grow in red clay soil in Georgia include lettuce, chard, snap beans, brussels sprouts, and broccoli.

REFERENCES/ RESOURCES:

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