



## Nature Activities: Week 1, Soils

### Soil Texture Analysis

A lesson from <https://www.soils4kids.org/experiments>

Soil consists of sand, silt, and clay. Sand (2.00-0.05 mm in diameter) is the largest, coarsest material and feels gritty in your fingers. Silt (0.05-0.002 mm in diameter) feels similar to flour. Clay (smaller than 0.002 mm in diameter) is extremely fine and will feel sticky in your fingers when it gets wet. The proportion of these particles determines the texture of the soil, or the way it feels. The texture of the soil will affect the amount of air, water, and nutrients available to plants and other organisms.

This activity is a simple method to determine the percentages of each particle in your soil.

1. In the morning, fill a quart mason jar half full of soil. Wet the soil to a mud consistency and tap the jar to settle the soil. Mark the level of soil on the jar with a sharpie or whiteout.
2. Add water to the top of the jar and shake the soil water mix until the soil fully mixes with the water.
3. Place the jar on a table and let the soil settle for 40 seconds. Look near the bottom of the jar and mark the level of soil. This is the sand, the heaviest soil particle.
4. Wait 6 hours and mark the level of the soil in the jar. The difference between the bottom mark (sand) and the mark you just created is the silt portion of the soil.
5. The difference between the middle mark and your original mark from step 1 is the clay portion of the soil.
6. Measure the height of each layer and then translate that into percentages for each component (height of each component divided by height of the sample).



<https://www.soils4kids.org/files/s4k/soil-texture-experiment.pdf>

### More resources:

<https://www.thespruce.com/easy-diy-soil-tests-2539856>

<https://kidsgardening.org/lesson-plans-soil-texture-and-composition/>

**Questions?** Contact Kim Kogler at [kimberly@okanogancd.org](mailto:kimberly@okanogancd.org)

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## **Nature Activities: Week 1, Nature Awareness**

### **Duplication**

A lesson from Joseph Cornell's *Sharing Nature with Children*

This game will help focus a child's attention and pique interest in their outside world. Before starting the game, secretly gather about 10 common natural objects from the immediate area. These items may be rocks, seeds, plant part, or signs of animal activity. Lay the objects out on a towel and cover them with another towel. Call the children over and share with them that you have 10 natural items that they will find nearby. You will lift the towel and they will have 25 seconds to look intently and memorize the items.



Once the 25 seconds pass, everyone leaves to collect identical items, keeping their findings to themselves. Everyone has five minutes to search and then will return to the person leading the activity.



Once everyone returns, dramatically pull each object from under the towel, one at a time, and share an interesting story about the natural item. As each object is presented, ask everyone if they found one just like it.

When you repeat the game multiple times, it strengthens a child's concentration and memory, while connecting them to the natural world.



### More resources:

Cornell, Joseph (1998) *Sharing Nature with Children*. DAWN Publications.

Cornell, Joseph (1989) *Sharing Nature with Children II*. DAWN Publications.

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