

3.1 Soil Layers and Types

Soil differs from place to place. Teach kids about the various types of soil by introducing them to their four components: sand, silt, clay, and loam. Get samples of each from different locations and let the kids touch and compare them. Have them write or tell about each.

For example, **sand** is the largest particle found in soil. When you rub it, it feels rough and gritty. Sand does not contain many nutrients but is good for providing drainage.

Silt falls between sand and clay. Silt feels smooth and powdery when it's dry. Silt also feels smooth when it's wet but not sticky.

Clay is the smallest particle found in soil. Clay is smooth when it is dry but it is sticky whenever it gets wet. While clay can hold many nutrients, it does not allow much air or water to pass through. Therefore, too much clay in the soil can make it heavy and unsuitable for growing most plants.

Loam, on the other hand, consists of a good mix of the three, making this type of soil the best for growing plants. Loam breaks up easily, encourages organic activity, and retains moisture while allowing for drainage and aeration.

Activity:

Soil shakes are also a great way to teach kids about various soil types. For each sample of soil, fill a clear container two thirds full of water. Add enough soil until nearly full, cover tightly, and shake. Let kids observe their 'shakes' over the next few days as the soil particles settle into layers. The larger particles, like sand, will remain at the bottom while the smaller ones will be closer to the top.

Assessment: Children will draw and label the types of soil as it layers in each bottle