

What's In My Soil Besides Rock, Sand and Silt?

Find an undisturbed area (somewhere that is not disturbed by humans or vehicles) This can be in a wooded area, or where it is boggy (marshy). Examine your soil sample using a magnifying glass or cellphone to magnify your sample; look to see if you find any living bugs, worms or other critters; is there any sign of fungi or things that don't look like plants, growing in the soil?

Supplies:

Trowel or spade

Piece of blank paper

Cell phone or magnifying glass

Something to write down some notes about what you find

Process:

Take a soil sample from an undisturbed area—find a spot where there are lots of dead leaves or other decaying plant matter. (Examples would be a wooded area, boggy area.) If there are dead leaves or other stuff on the top of the soil, try to keep those with your soil sample you are going to take. We'll call the soil sample a "soil brownie", because it will have that shape. The dead stuff (detritus) on the top of the soil may be really useful for this activity, so you will want to keep that to look at, too.

To take your sample, use the spade or trowel and take a "slice" of soil that is about 2-3 inches wide, 2-3 inches long and 3 inches deep. Try to keep your cutting or digging tool as perpendicular to the ground as you can so that your cut is as straight as possible (like cutting brownies in a pan and then taking one of them out of the pan).

Now, dig and lift your "soil brownie" out of the ground and carefully lay it on the piece of paper. Try to keep your soil brownie from falling apart (it's okay if it does, but what you see may look different than if your soil sample didn't fall apart).

Describe how the soil looks, smells, and feels (by taking some and sort of rubbing it gently between your fingers). Write down your observations and give your descriptions your best efforts, like "the soil smelled like dirty, old gym socks" or "smelled like a mushroom"—whatever comes to mind that is First Day School appropriate :)

Next, using a cell phone or magnifying glass, examine your soil brownie. What do you see? Is there anything that doesn't look like soil or dead leaves and stuff? Are there any bugs or worms? Describe how the soil breaks apart (in clumps, crumbles, etc.). For example, it was gritty, it had lots of mud balls, crumbs, chunky, etc). Did you see any fine, hairy stuff that looked like it might be mold growing in the soil brownie? Any bugs or tiny creatures?

Write down your observations and share these with your family. You can share them with us, too!

How do you think this activity, and what you learned from examining your soil sample, relate to one of the quotations, query or bible passage at the beginning of today's lesson?

[Video clip](#) of soil microfilia, etc. (3 minutes)

