NUTRIENTS FOR LIFE FOUNDATION

Soil Contains Water Experiment

Age: K-3rd

Time: 15-20

Group Size: 20-30

By the end of this activity, participants will understand the role water plays with soil to grow plants.

Although this might not be a workshop "ready" activity, it is a nice activity to share with early elementary teachers for them to use in their classrooms.

Materials needed:

- 3 Coffee cans
- Regular moist dirt from a garden
- Dry sand from a sandbox (collected at the same time as the dirt, under similar conditions)
- Black construction paper
- Tape
- Sunny Window or top of a warm radiator

Instructions

Does Soil Contain Water?

*prepare a couple hours before the workshop

Water is water and soil is soil. Then there is the important scientific principle that plants must be watered, and the water must stay somewhere! Here is an experiment that uses coffee cans, dirt, and sand to explore the question of whether soil and sand "contain" water. This activity helps kids observe and hypothesize. As a bonus, it ties into the water cycle.

- Make a hypothesis. Ask the student is they think that dirt and sand contain water. Then ask how they can tell, and which one might hold more water.
- Then, line up your coffee cans and leave the first one dry and empty.
- Place black construction paper across the top of it, and tape it down at the edges.
- Now fill the next can half full with your garden dirt, and tape construction paper across the top as you did with the first can.
- Finally, fill the third can half full with sand and cover with the construction paper.
- Put all three cans in front of a sunny window and leave them there for a couple of hours.
- When you come back to observe, the paper on the top of the empty can should look dry and untouched. The paper on top of the dirt should be quite drenched. The paper on top of the sand will be slightly moist.
- Talk like a scientist with your child: why is it important to know if soil holds water? What if we just planted in sand? Or dry air? Ask what this tells us about the importance of water and soil to grow plants to feed the world.