

Recipe for Soil

Materials Needed:

- large bowls (enough for each group of 3-4 students to have one)
- large spoons (enough for each group)
- dried/dead leaves
- small rocks or pebbles
- water
- Large classroom copy of the “Soil Recipe”

Time:

approximately 30 minutes

Skills:

Science (soils)

Procedure:

Begin the activity by explaining to students that they are going to be making soil. Ask students what they think is needed to make soil. Write their answers on the board.

After several answers, explain that there are several things needed to create new soil – **rocks** (which break down into tiny pieces), **dead plant materials like leaves** (which also break down or decompose into tiny pieces), and **water**. Explain to students that normally, worms and other animals are needed to mix up the “ingredients” and help break-down or decompose the plant material, but today, they are going to be doing this by using a spoon.

Provide each group of 3-4 students with a large bowl, a large spoon, and a copy of the soil recipe card. Then give each group some rocks or pebbles, dead/dried leaves, and a little water. Ask them to add each “ingredient” into the bowl and mix well.

continued



Explain that the recipe card says it takes time, so encourage the students to continue stirring for several minutes. Encourage students to take turns stirring. After several minutes, ask students how much soil they have? None? Why? Ask each group if they remembered to add all the “ingredients.” Ask each group if they stirred the “ingredients” well.

Pretend to be confused; tell students you are going to look more closely at the soil recipe. Oh, wait! The recipe says it takes a long time to create new soil... more than just 5 minutes. In fact, it takes 200 years to make 1 inch of new soil!!

Explain to students that they would need to stir their mixture for 200 years before they would get new soil! In fact, soil requires a lot more than dead leaves, rocks, and water to make. It takes time, insects and worms to mix and decompose, rain and freezing/thawing to make new soil.

Soil Recipe

Ingredients:

- 1 handful dead or dried leaves
- 1 handful rocks or pebbles
- ½ cup water
- time

Combine leaves, rocks, and water in bowl. Begin mixing. Stir. Stir. Stir.