

EDIBLE SOIL PROFILE

Objective: Students will recognize that soil is made up of different layers and identify the components of a soil profile.

Illinois State Goals: 12.E.

Top Book Hits:

A Handful of Dirt by Raymond Bial; **ISBN-13:** 978-0802786982

Soil! Get the Inside Scoop by David L. Lindbo and others; **ISBN-13:** 978-0891188483

Materials Needed:

- 44 oz. ready-to-eat chocolate pudding
- 2 (16 oz.) packages of chocolate sandwich cookies, crushed
- 30 gummy worms
- 12 oz. package chocolate chips
- ½ cup multi-colored sprinkles
- ½ cup coconut
- Green food coloring
- 6 clear bowls
- Quart-sized Ziploc bag
- Paper towels
- 36 plastic spoons
- 30 clear plastic cups



Procedure:

1. Explain to the students that they will be building an edible soil profile from the ground up, but first they have to identify the ingredients they represent.
2. Pour the chocolate chips into the first of the six containers, asking students for suggestions on what component they represent (parent material/bedrock). Explain to the class what parent material is and its purpose in the soil profile.
3. Pour the pudding into the next container. Again, ask the class for suggestions (subsoil). Explain what you might find in the subsoil.
4. Place the crushed cookies into the third container. Do the students know what this represents? (topsoil) Explain the difference between topsoil and subsoil. This might be a good time to discuss erosion.
5. Next, pour the multi-colored sprinkles (organisms) into a container, asking for student suggestions and offering explanations.
6. Put the coconut into the quart-sized Ziploc bag and add a few drops of green food coloring. Shake the bag until the coconut has turned green. Spread the coconut on paper towels for about 30 minutes to dry. (Note: you may want to do this before class as a time saving device.)
7. Place the green-tinted coconut into a container. Do the students know what this represents? (grass) How can grass, or the lack thereof, affect erosion?
8. Place the gummy worms in the last container. Can the students guess these represent earthworms? What role does an earthworm have in the soil profile?

Give credit where credit is due...this activity came from Soil mAGic Kit.