



# Dirt Pudding Cups

**Objectives:** Students will learn about soil layers by building their own edible soil “horizon”. At the end of this activity, students should be able to identify soil layers and their characteristics.

**Time to complete activity:** 15 minutes

**Materials:** Oreos, Chocolate Pudding, Gummy Worms, Whipped cream, clear plastic cups, green sprinkles, coconut, green food coloring.

**Background/Setting the Stage:** As the students add each layer, go over the information from the next page about soil horizons.

## Activity:

1. Place a whole oreo in the bottom of the cup to act as the “parent rock” material that will break down into soil.
2. Crushed Oreo pieces will go next to show the breakdown of parent material.
3. Chocolate pudding will represent the subsoil layer.
4. For the topsoil layer, use whipped cream. Feel free to add gummy worms in this layer!
5. For the grass, participants can use green sprinkles or coconut dyed green.

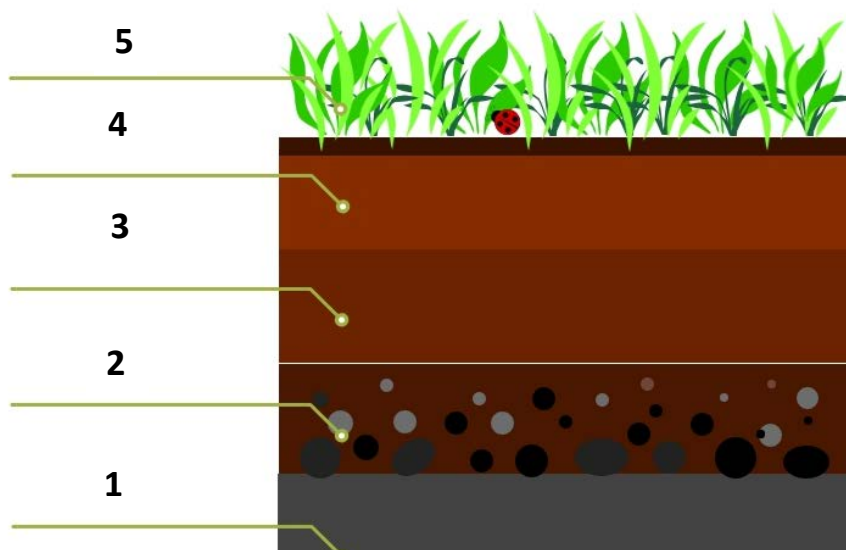
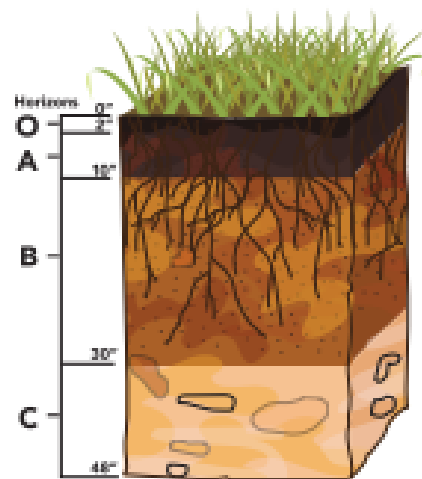


Figure 1 Source: Purdue Extension Indiana 4-H Soil and Water Project Manual

## SOIL HORIZONS

A typical soil has five **horizons** (layers), which are labeled with the letters O, A, B, C, and R.



**FIGURE 1.**  
**Primary Layers**  
**of a Soil Profile**  
Courtesy USDA NRCS

- O** Surface horizon made of fresh decaying plant residue
- A** Topsoil contains humus, roots, and organisms; lacks structure or is granular
- B** Subsoil; clays accumulate, structure forms, some roots, and leached materials

**C** Parent material from which the soil was made; could be weathered bedrock but is not considered a soil (yet)

Solid rock called bedrock (layer R, not shown) underlies the parent material.

*Figure 2: Purdue Extension Indiana 4-H Soil and Water Project Manual*