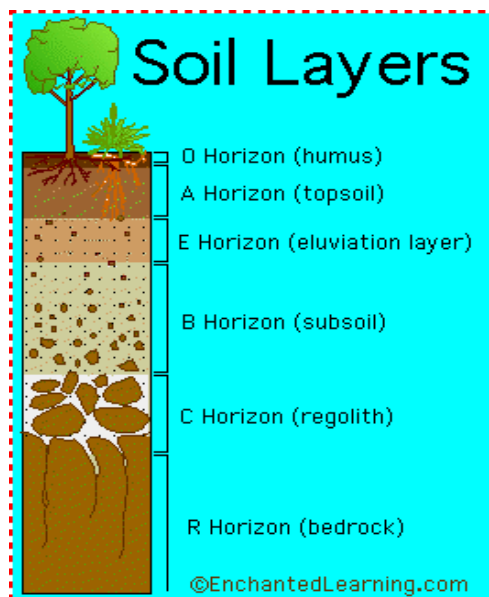


Edible Soil Profile

An **Edible Soil Profile** is something that looks like what you would find if you dug deep into the ground. But you can eat your soil profile, that's why we call it "edible". If you were to take a big machine, like an excavator, and dig a big hole in the earth, you would be able to see the different soil horizons (or soil layers).



O Horizon - Conservation Layer (Oatmeal Crisp Raisin Cereal) – covers the topsoil. This layer is made up of leaves, grass, sticks, bugs, worms, ants, rocks, and anything else that might fall to the ground. When the leaves, grass, and plants die, they decompose and form a layer on top of the soil to make it rich and nice for the animals and bugs.

A Horizon - Topsoil (crushed chocolate sandwich cookie) – is the very top layer of soil and is what you usually walk on. When farmers are working in their fields and the wind is blowing, often you will see the topsoil blowing away. The topsoil is washed away if there is a heavy rain and there isn't any grass or crops to hold the soil in place. When you play in the yard and dig with your toys, you dig in the topsoil. Seeds germinate and plant roots grow in this dark-colored layer. It is made up of humus (decomposed organic matter) mixed with mineral particles.

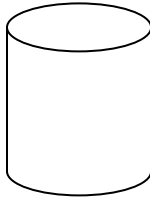
E Horizon - Eluviation Layer: Fine/ Coarse Sand (crushed graham crackers/roughly crushed Rice Krispies) – is made up of rock that has broken down into small pieces. It is made up mostly of sand and silt, having lost most of its minerals and clay as water drips through the soil (in the process of eluviation). Sand doesn't stick together like clay, so water will run through it. Insects and animals can move around in the fine sand, but there isn't any food there, so they move to the upper layers to find the food they need. If you took a handful of sand and threw it into a pond, the coarse sand would fall to the bottom faster than the fine sand because the pieces are bigger and heavier.

B Horizon - Clay (crushed peanut butter cookies) – Does anyone know what clay feels like? Is it hard or soft? Clay is very hard when it is dry, but if you get it wet, it feels softer and almost greasy. Clay is often used in the bottom of ponds to make the water stay in the pond because good clay will hold water. If the clay is mixed with soil or sand, it won't hold water as well. Maybe you use clay at home or school for art projects.

C Horizon – Parent Material (Organic Blue Corn Flakes) – is made up of soil layers that are little changed. It may be composed of soft bedrock that can be dug with a spade, such as shale, siltstone, weathered sandstone. Shale is a type of rock that appears as layers on top of layers. If you lay your hand on top of your other hand, and then another hand on top of that hand, that gives you an idea of what shale looks like. Water can run through shale, but very slowly.

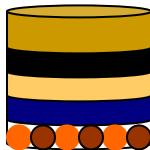
R Horizon - Bedrock (Reese's Pieces) – Bedrock is the deepest and is a very hard layer of rock. It is usually very thick. If you dug many, many feet into the earth, do you think any animals or bugs could live in this layer? There aren't any living animals or insects in this rock because it is too hard and animals can't dig through it. There isn't any sunlight or oxygen that far into the earth. Our groundwater is found in the bedrock because the rock can hold the water, like a big tank. Examples of hard bedrock include granite, limestone, and sandstone.

STEP 1:



Take a cup.

STEP 2:



Add small layers of items 1 through 8 and put in the cup.

STEP 3:



Take spoon.
Enjoy!

A great snack with a milk break!

NOTE: For students with peanut or other allergies, simply skip those layers of soil. Remember, soils layers vary a great deal throughout the Earth!