

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 layers.

Bedrock (Reese's Pieces) – Bedrock is the deepest and 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? What kinds? 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.

Shale (Organic Blue Corn Flakes or blue frosting) – It is also a type of rock, but appears more 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 this kind of rock looks like. Water can run through shale, but very slowly.

Clay (Crushed Nutter 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.

Coarse Sand (Roughly crushed Rice Krispies) – is made up of rock that has broken down into small pieces. 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. Sand doesn't stick together like clay, so water will run through it.

Fine Sand (Graham Crackers crushed to powder) – is above the coarse sand. This kind of sand is tiny, like you would find on a shoreline. Sometimes it has tiny pieces of dirt, called silt, mixed in 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.

Subsoil (Vanilla & Chocolate Sandwich Cookies; crushed together, filling removed) – is just below the topsoil. What would you find living in the subsoil? Insects, worms, ants, groundhogs, chipmunks, etc. The subsoil is usually gray or brown.

Topsoil (Chocolate Sandwich Cookie, with filling, crushed) – 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.

Conservation Layer (Oatmeal Crisp Raisin Cereal, gummy worms, M & M's) – 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 form a layer on top of the soil to make it rich and nice for the animals and bugs.