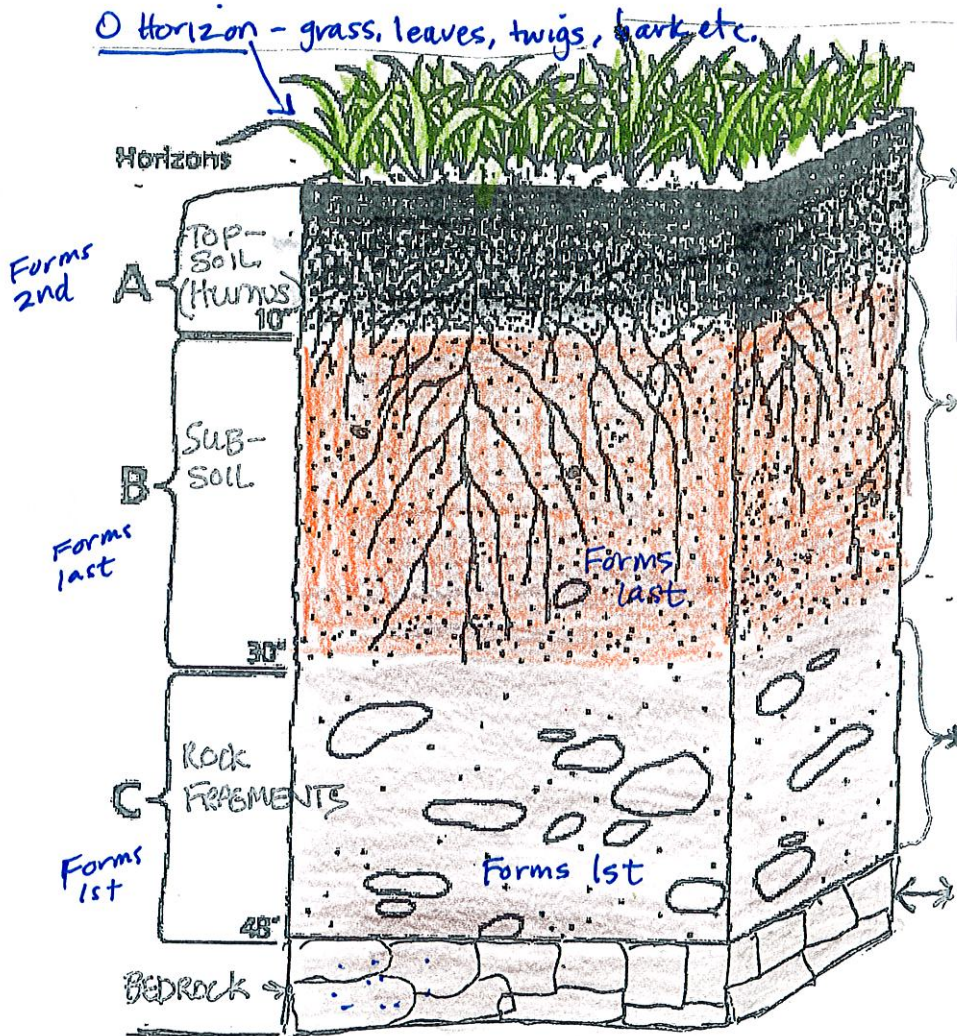


# A SOIL PROFILE

CLASS COPY

## Directions-

- Describe each layer of soil (horizon). Tell what the layer is made of. Be specific.
- Color each layer the following:
  - Horizon A = black
  - Horizon B = dark orange-brown
  - Horizon C = light brown or tan
  - Bedrock = Tan



Horizon A = Top Soil = Humus – this layer is mostly made of decaying plant and animal matter; it is very dark due to a high amount of organic matter; this layer contains the nutrients that plants need such as nitrogen and phosphorous. This layer makes the soil fertile. Many farmers add manure (cow, horse, chicken) to their soil to make it more fertile. Soil that does not have this layer is considered infertile. This layer forms second.

Horizon B = Sub-Soil – this layer has mostly inorganic matter in it such as clay; if the clay has a lot of iron in it, this layer will turn orange-red when it oxidizes (the iron and oxygen chemically combine). The minerals from Horizon A leach down into this layer. This layer forms last. This layer could also have sand and rock fragments in it.

Horizon C = Rock Fragments – this layer is weathered bedrock or rock fragments; there is no organic matter in this layer; it is all inorganic. This layer forms first as the bedrock starts to weather.

SOLID ROCK = Bedrock  
This layer of solid rock is also called PARENT MATERIAL because when this rock weathers, it becomes soil. Could be granite, sandstone, limestone etc.

- What is a horizon?

A horizon is a layer of soil that differs in color, texture and composition from the layers above and below it.

- Is this soil profile considered mature or immature? How can you tell?

This soil profile is considered to be mature because it has 3 distinct, well developed layers. An immature soil profile would have only Horizon C and maybe Horizon A (only one or two layers).

- Describe how each horizon forms and the order in which they form. Make sure you get the order correct. See page 120 (figure 8) in your red textbook. Draw a diagram for each step similar to figure 8. Use the back of this sheet to answer this question.

Turn over →