

Name _____

Functions of Soil

- 1.
- 2.
- 3.
- 4.

Soil Horizons & Properties

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/oh/soils/>

1. Go to the above link.
2. Looking at the map, determine the 2 soil regions that Cuyahoga County falls in.
3. Which soil region do Beachwood and Acacia Reservation fall in?
4. What is the state soil for Ohio?

Describe it.

What crops grow well in Ohio soil?

5. Soil Horizons

Using the horizon data given, make a scaled and proportional drawing of the soil horizons that are likely to be found in Ohio (like on p. 223 of your book). Label each layer with the horizon letter and a description. Which layers are missing?

Soil Texture Calculation - Sand is the largest particle and so will settle out faster in a suspension, silt is the next in size so it then settles, and lastly clay. Use the diagram to determine the type of Soil.

1. Fill a 100 mL graduated cylinder with 25 mL of your soil sample.
2. Add water until there is about 75mL in the cylinder
3. Cover the cylinder with film and invert several times until the soil is thoroughly suspended in the water. Place the cylinder on the lab station and leave it to settle for at least 30 min.
4. When the soil has settled, there should be 3 distinct layers. Measure the volume of each layer and the total volume of the sample.
5. Calculate the percentage of each component and then determine soil type.

$$\frac{\text{Amount of each component}}{\text{Total volume of soil}} \times 100 = \% \text{component}$$

