

What's Soil Got To Do With It?

Part 1—Texture by Feel

1) Have one member of the group put some of the sandy soil sample on his or her palm. Add a few drops of water and try to form a ball. Try to squeeze the ball into a snake and bend it into a ring. How does the soil feel? Repeat with the other samples.

Can you...	Sand	Local	Clay
...form a ball?			
...form a "snake ring"?			
...feel grit or sand?			
...feel smooth, like flour?			
Does the soil feel gritty, but not sticky?			

2) Finish each sentence below by describing each soil's characteristics.

I would know I had a **sandy** soil if it _____

I would know I had a **clay** soil if it _____

I think our **local** soil is most like _____

3) For the soil types listed below, predict which will have a slow, fast, or medium percolation rate. Draw a line from the soil type on the left to its percolation rate on the right.

Sand

Slow

Local

Fast

Clay

Medium

Part 2—Percolation Test

- 4) Pour $\frac{1}{2}$ cup of water into the top of the sand tube and begin timing. How long does it take for the half cup of water to soak into the soil? Record on the chart. Repeat with the local tube and the clay tube.

- 5) If water is not yet dripping from the bottom of any tube, add more water, $\frac{1}{4}$ cup at a time, until it does. How much water is added before it has percolated down to drip out the bottom of the tube? Record on the chart.

- 6) Compare and record the percolation rate you observe for each type soil.

- 7) If water is not yet standing on top of the soil, add more water, $\frac{1}{4}$ cup at a time, until it does. How much water was added before the soil became saturated?

- 8) The amount of water held in the saturated soil is equal to the amount of water added minus the amount in the drip cup at the moment there is no water standing on top of the soil.

	Sand	Local	Clay
4) Time for $\frac{1}{2}$ cup of water to soak into soil:			
5) Total amount of water added before dripping out bottom:			
6) Is the percolation rate slow, medium, or fast?			
7) Amount of water added before water sits on top of soil:			
8) When the soil is saturated, how much water is held in the soil?			

9) What type of soil would you expect to find in a wetland?

10) What characteristics would you expect to find in a soil in a wetland?