**In the Garden Soils Video , Part 1 5.01, P:1**

1. Soil = \_\_\_\_\_\_\_\_\_\_\_\_\_ + space. Stuff is \_\_\_\_\_\_\_\_\_\_\_\_\_+ organic material. Space is \_\_\_\_\_\_\_\_\_\_\_ or air or both.
2. The function of soil is:
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water
   3. Hold and provide \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to the root system.
3. Label each part of the soil composition pie chart.

5%

25%

45%

25%

1. Roots grow where there is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and oxygen.
2. Texture is how it feels. It is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (large sized), silt, and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(small sized).
3. Soil texture is made up of particles that have different sizes.
   1. Sand texture is sized like a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   2. Silt is sized like a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   3. Clay is sized like a tomato seed.
4. Why is texture important?
   1. Water percolation
   2. Water\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. And nutrient availability.
5. What is friability?
6. How do you test friability?
7. Is clay friable? Why or why not?
8. What is a problem with non-friable soil?
9. What is a soil profile?  
   Which part of the soil profile is the darkest and best for root growth?  
   How can you test to see if your soil drains?
10. What is the soil solution?
11. How can a high cation exchange capacity help the soil solution?
12. Clay and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ have high cation exchange capacities.
13. What is organic matter?
14. What is mulching?
15. How can mulching improve cation exchange capacity?
16. What is one thing you can add (organically) to improve soil beds for annuals and perennials?
17. What is the plant of the week?