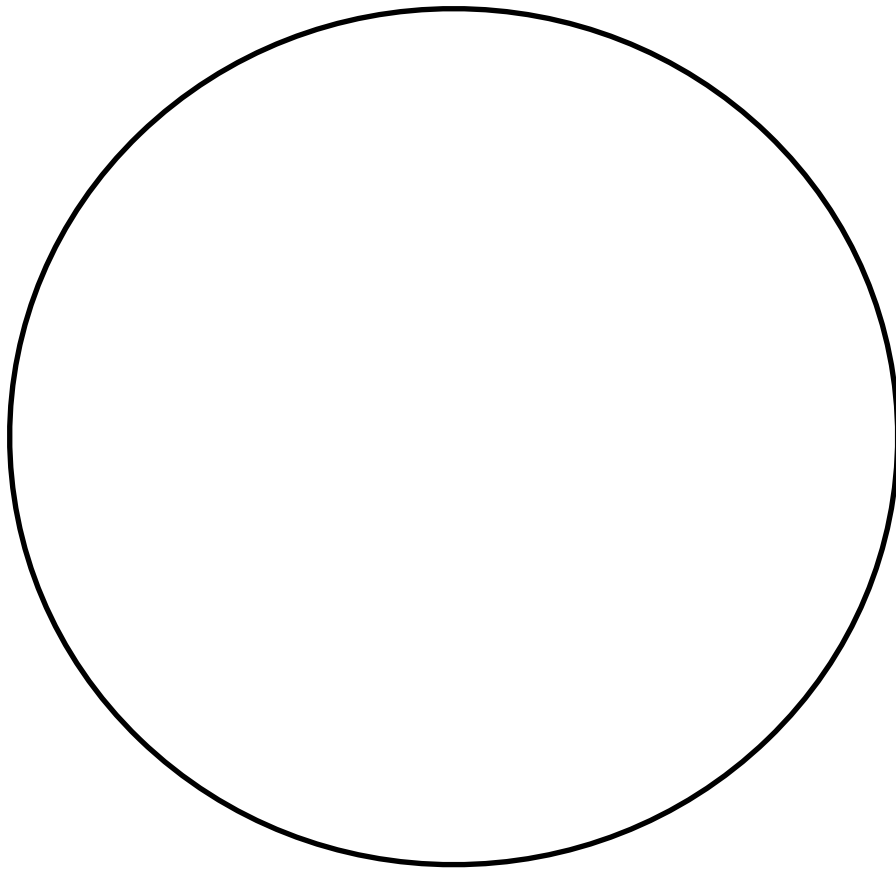


Name: _____

Date: _____

Introduction to Soils Webquest

1. What are the four essential elements of soil, and what percentage of each makes up our soil? Draw and label the pie chart in the area provided! In your own words, discuss why each of the four elements are so important, using information you've found on the website provided! Use this website to help you find the proper information: <http://www.ctahr.hawaii.edu/mauisoil/basics.aspx>



2. Soil Nutrients are important when deciding what plants you can grow in your area, and can be broken down into 4 major categories: Essential Nutrients, Primary Macronutrients, Secondary Macronutrients, and Micronutrients. Complete the charts below using this website: <http://www.ncagr.gov/cyber/kidswrld/plant/nutrient.htm>

Essential Nutrients

Nutrient	Primary Use	Where is it found?
Oxygen		
Carbon		
Hydrogen		

Primary Macronutrients

Nutrient	How does it help a plant?
Nitrogen	
Phosphorous	
Potassium	

Secondary Macronutrients

Nutrients	How does it help a plant?
Calcium	
Magnesium	
Sulfur	

Micronutrients:

A.	E.
B.	F.
C.	G.
D.	

Farmer Joe grows sweet corn that he sells at this road side stand. This year his corn crop has been very short, and the leaves are turning yellow. Using the information you learned about soil nutrients, what nutrient deficiencies might he have? Make sure to give evidence to support your ideas!!!

3. Soil texture is very important when discussing how well the soil nutrients are held within the soil, and how well plants will grow. Use this webpage to help you, and then site any other resources you may use (you should use at least 2 other resources): http://www.ctahr.hawaii.edu/mauisoil/a_factor_ts.aspx

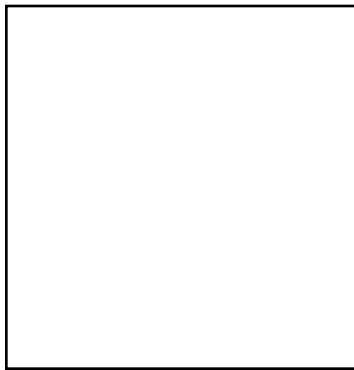
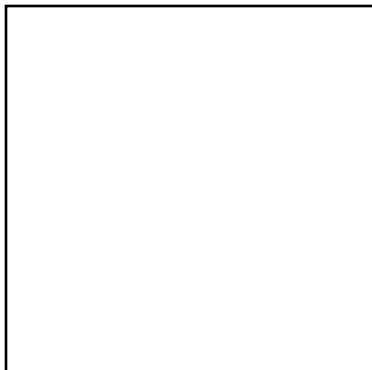
Particle	Particle Size	Characteristics of Particles
Clay		
Silt		
Sand		

Draw a picture of what each of the particle sizes look like in the boxes provided, using this website as a resource: http://www.tekura.school.nz/departments/horticulture/ht104_p3.html

Clay

Silt

Sand



Why is particle size in soil so important? What does particle size affect?

4. When parent rock weathers, layers are formed, and create what we call a soil profile. Use the following websites to perform research, and draw, label, and define each part of your soil profile! Make sure to color code each of your layers, and be NEAT!!! You are responsible for knowing and understanding the following soil horizons: O, A, B, C, and R!!!

- http://www.tekura.school.nz/departments/horticulture/ht104_p1.html
- <http://soils.usda.gov/gallery/photos/profiles/>
- http://www.ctahr.hawaii.edu/mauisoil/a_profile.aspx