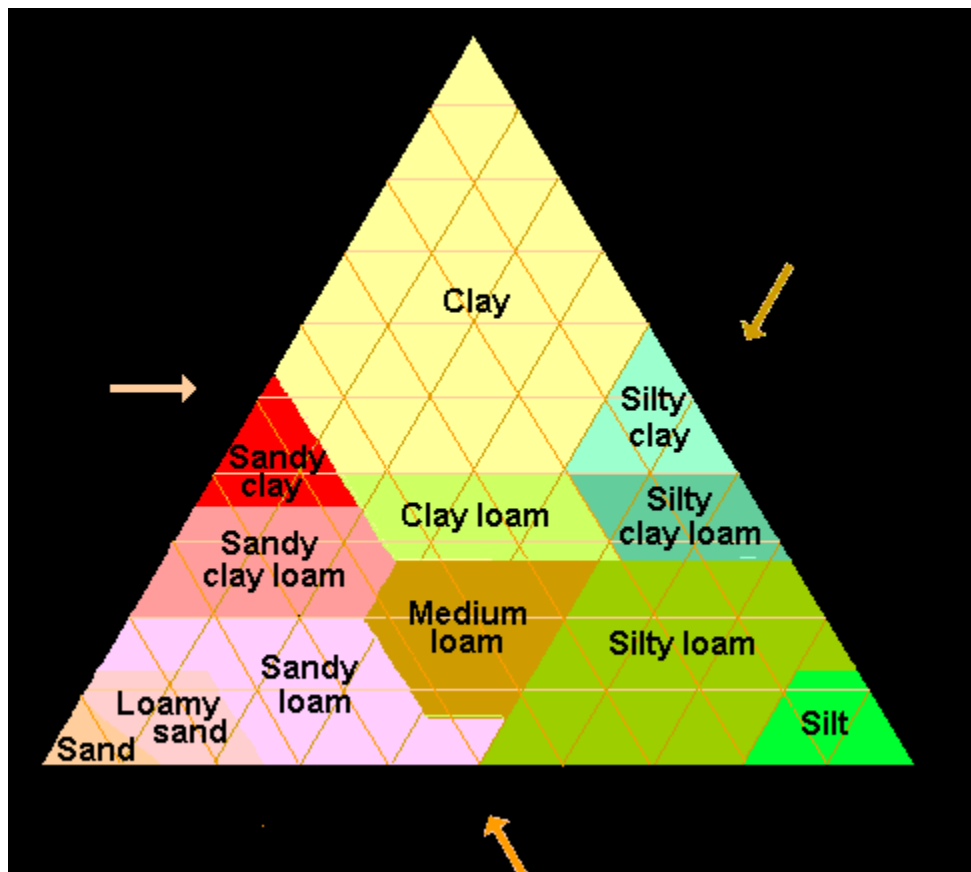


Stronger Than Dirt

Name _____

In this activity you will design your own custom blends of soil and compare their abilities to support plant life.

Plant growers depend on good soil to produce healthy plants. This is a soil triangle; it is used to describe soils. The three major ingredients for soils are **CLAY**, **SILT** and **SAND**.

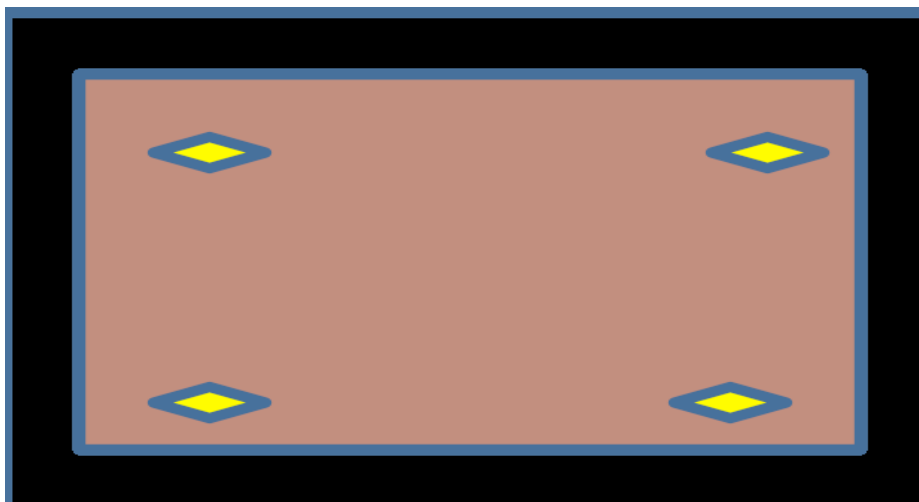


Lab Procedure:

Day One

1. Get Organized. You will need to work with your partner to collect the following materials: soil mixing pan, scoops, measuring cups, soil sleeves, labeling sticks, marker, tray for the soil sleeves, seeds, water and a 500 ml. beaker filled with sand, silt, moss, compost and a handful of clay.
2. Lay down a newspaper at your lab bench and arrange your supplies.
3. Remove the Soil Mixture Data Sheet from the lab packet.
4. Record your mixtures for each creation that you make on the data table.
5. Fill plant sleeves and label each sample.
6. Saturate the samples with water.
7. Plant seeds in the sleeves.

How to plant seeds in the sleeves:



Stronger Than Dirt

HI!, This is the sheet you have all been waiting for, YEAH!. The data sheet for soil composition. This data sheet needs to be filled in in order for you to “wrest” some good connections to the big question “WHY”. You need to THINK about how you will record your data. You need to think about percentages and amounts. How should this data should be recorded?

Soil Mixture Data Sheet

Soil sample	Sand	Silt	Clay	Organic matter	Other

Student Plant Growth Data Sheet

Record data with a centimeter ruler

Plant Growth Data Sheet (cm)

Soil Sample	Day 5	Day 10	Day 15	Day 20	Day 25	Day 30

Discussion:

Work with your lab partner to determine a method to visually display (graph) your data. Compare using pie charts, bar, line and other methods of presentation. Use Excel or Graphical Analysis software to help create the graph.

Questions:

Which soil mixture worked the best?

What parts of soil do you think are the most important?

How could you improve your soil mixture?