

Name: _____

Date: _____

Separating Soil

The three main kinds of rock pieces in soil are sand, clay, and silt. Sand pieces are the largest; they feel gritty. Silt pieces are not as big as sand; they feel like powder. Clay pieces are the smallest; they feel smooth and are sticky when wet. Different types of soil can have different amounts of sand, silt, and clay.

If soil has a lot of sand it is often loose and does not hold water well. It is hard for plants to grow in sandy soil.

If soil has a lot of silt in it, it will hold water well, but it can easily be blown around by wind.

If soil has a lot of clay it holds water very well. However, the grains are so close together that it is hard for plants to grow.

Loam is a mixture of sand, silt and clay. It often contains humus, which gives it nutrients plants need to grow.



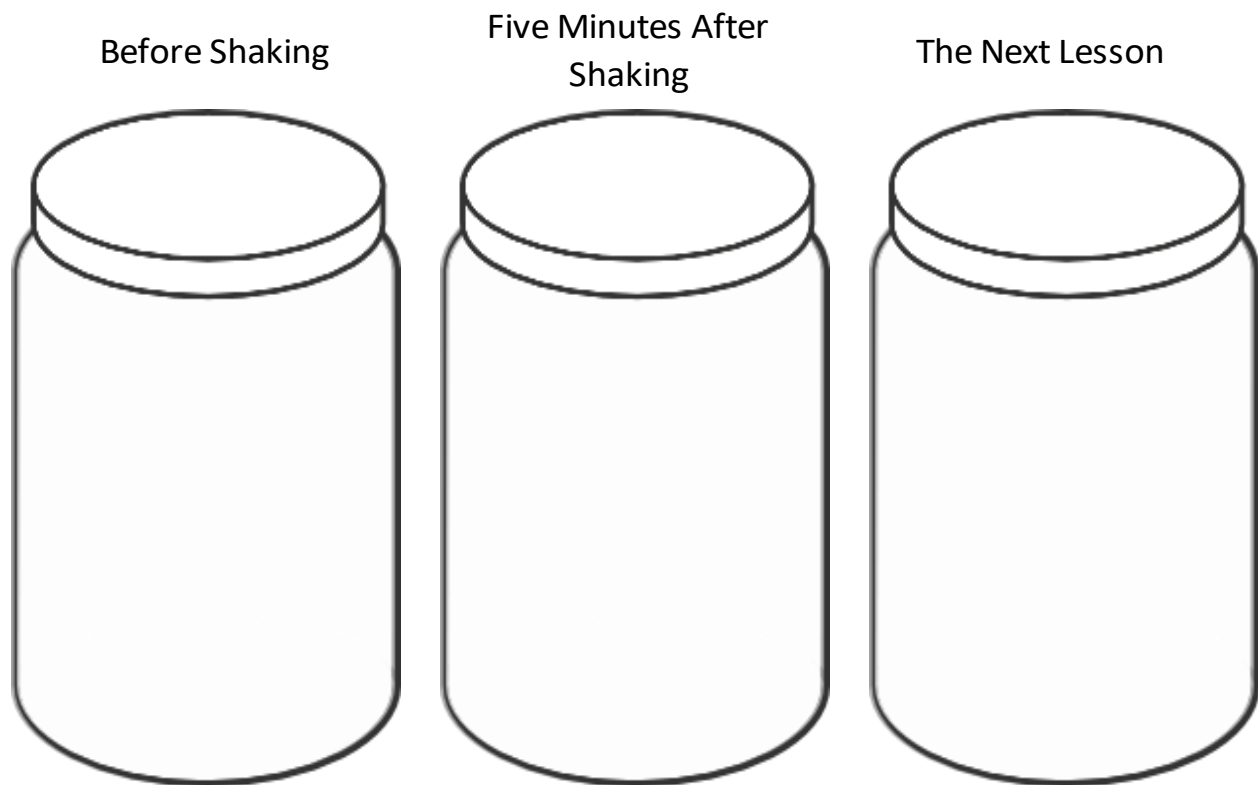
Equipment:

- Glass jar with a lid
- A soil sample
- Water

Procedure:

1. Fill about one third of the jar with soil.
2. Add water until the jar is almost full.
3. Put the lid on the jar tightly.
4. Draw what you see in the jar at this point (Observations).
5. Shake the jar.
6. After about 5 minutes draw what you see in the jar.
7. Place your jar on a flat surface where it will not be disturbed.
8. The next class you will once again draw what you see in the jar.
9. Answer the questions on the back of the page (Discussion).

Observations:



Label the drawing of your jar to show which part is clay, which part is silt and which part is sand.

Discussion:

1. Compare your results to the results of the other students. What do you find?

2. If you tried this experiment again, would the materials settle in the same order? Why or why not?
