

# Soil Texture Test: The Shake Test



1. Collect about 1 cup of soil from 3 - 4 inches below the surface.
2. Spread the soil out on some paper and remove any pebbles, roots, and fluffy organic matter. You can also use a strainer for this.
3. Fill your jar with soil about a quarter full.
4. Add 1 teaspoon of borax to your jar. The Borax helps the clay settle from your sample.
5. Fill the remainder of your jar with water. Leave about 1 inch of space at the top of the jar.
6. Shake your jar for about 5 minutes or until thoroughly mixed.
7. Leave the jar in a level spot for at least 24 - 48 hours.
8. Use a sharpie to mark each layer on the jar. Then use a ruler to measure the total height of the layers and the height of each particle layer.
9. Use these formulas to find sand, silt, and clay percentages.  
$$\% \text{ Sand} = (\text{height of sand}) / (\text{total height of mixture})$$
$$\% \text{ Silt} = [ (\text{height of silt}) - (\text{height of sand}) ] / (\text{total height of mixture})$$
$$\% \text{ Clay} = 1 - \% \text{ Sand} - \% \text{ Silt}$$
10. Match the percentages of your sand, silt, and clay to the percentages on the soil textural triangle. Find where the three lines intersect on the triangle and that is your soil type.

