# Soil Water Holding Capacity

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Record Data and Observations in the table below

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Soil Type** | **Amount of soil** | **Amount of water added** | **Time** | **Amount of water that drained through** |
| Clay | 250mL | 160mL | 2 minutes |  |
| Silt | 250mL | 160mL | 2 minutes |  |
| Sand | 250mL | 160mL | 2 minutes |  |
| Potting Soil | 250mL | 160mL | 2 minutes |  |

## Respond to the Questions Below

1. Which soil retained or held the most water? Why?

Clay. Clay particles are the smallest which means that there are more of them in a given volume. That means that there is more surface area for the water to bond with.

1. Which soil retained or held the least water? Why?

Sand. Sand particles are the largest which means that there are fewer of them in a given volume. That means there is less surface area for the water to bod with.

1. Potting soil is not really soil. It is made up of mostly organic matter (like peat moss and bark) and perlite, a heat-puffed volcanic glass. How does potting soil compare to actual soils with regards to holding water?

Organic matter like peat moss and bark provide decent surface area for water molecules to bond with. But it should still drain relatively well like sand. Perlite is added to potting soil to keep the mixture from becoming too dense.