## Soil - Holding capacity - water and nutrients

Purpose: The purpose of the lab is to see which will absorb the most water and trap the most nutrients.

**Prediction:** We think that the sand will collect the most water and we think that the clay will trap the most nutrients.

### **Materials:**

Clear cup with holes in bottom Opaque cup Soil samples (local dirt, sand, clay) 80 mL of KoolAid liquid Coffee filter

# Safety:

Wash your hands after handling the soil samples Do not eat/drink lab materials

### **Procedure:**

- 1. Got a soil sample
- 2. Put sand, local soil, or clay in a coffee filter
- 3. Measured 80 ml of purple cool-aid into a beaker
- 4. Put the coffee filter in a cup which went into another cup
- 5. That other cup had holes in the bottom to drain the water from the sediments through
- 6. Poured the purple kool-aid into the clay
- 7. Waited for all the liquid to drain through the holes
- 8. Put the liquid back into the beaker to measure how much liquid we now have
- 9. Compared the beakers and made observations about the water from the different sediments

# **Data and Observations:**

The clay water was the cleanest and the water that went through the local soil was the dirtiest. Less water came out threw the clay. The averages for the clay had 40 ml, the sand had 20 ml and the local soil had 21 ml. The color of the sand water was brown, the color for the clay was greyish and the color for the local soil was purple.

# **Conclusion:**

Are hypothesis was supported and not supported. It was supported because the clay did collect the most nutrients and it was not supported because the sand did not collect the most water.