

CALIFORNIA STATE SCIENCE FAIR 2014 PROJECT SUMMARY

Name(s)

Zachary Z. Jimenez

Project Number

J0805

Project Title

Soil Moisture Content

Abstract

Objectives/Goals

My goal was to find out whether soil, gravel, or sand took the most moisture to compact.

Methods/Materials

Soil

Sand

Gravel

Rammer

Cylinders/Molds

Straight Edge

Balances

Sieves

Sieve Shaker

Oven

Results

My results showed that the soil (silt sand) required the most moisture to compact. The silt sand and data indicated a maximum dry density of 121 pounds per cubic feet and moisture content of 10%.

Conclusions/Discussion

I concluded after compacting each type of sample that the soil took more moisture to compact than gravel or sand.

- -Soil has a moisture content of 10% and a maximum dry density of 121 pounds per cubic feet.
- -Sand has a moisture content of 9% and a maximum dry density of 118 pounds per cubic feet.
- -Gravel has a moisture content of 7% and a maximum dry density of 140 pounds per cubic feet.

Summary Statement

My project is about which type of soil can hold the most moisture content.

Help Received

My father, Solin Jimenez, helped conduct experiment. My mother, Raquel Jimenez, helped me finalize reports and summaries.