

CALIFORNIA STATE SCIENCE FAIR 2005 PROJECT SUMMARY

Name(s) Project Number

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S0606

Project Title

Dirt Domination

Abstract

Objectives/Goals

The objective was to determine the dominant soil type in Anderson Valley.

Methods/Materials

Our method was that we took soil samples from conveniently located mile markers from Yorkville to Navarro. Then we brought those samples back to the classroom. We put forty milliliters of each soil sample into a graduated cylinder along with thirty milliliters of water. After five days the soils separated. Next, we took a percentage of each layer of soil (sand, silt, clay) using the soil triangle to classify the soil type. Then we compared our results to find which type of soil is dominant in Anderson Valley. Our materials were graduated cylinders, soil extractor, ziploc bags, tap water, soil triangle, physical map of Anderson Valley, and paraflim.

Results

We collected twenty-one soil samples from Yorkville to Navarro trying to find the dominant soil type in Anderson Valley. We found that clay was the most common by an obvious amount. Sandy loam was the runner up, with four occurrences. Sandy clay loam and loamy sand both showed up two times. Silt loam and silty clay showed up only once each in our data.

Conclusions/Discussion

Our hypothesis was correct. We thought that the dominant soil type would be clay because we live in a humid region, with many creeks and rivers.

Our experiment went well. We spent a month, and a half taking notes and learning about our subject. We learned about the different soil types and how to use the soil classification triangle. After we took notes, we looked for a topographic map of the Anderson Valley. We looked for a week and a half to find a map, but we were unsuccessful. Finally, we settled on physical maps from Mr. Grist.

If we could do our project over again, we would do things differently. We would manage our time better. We wouldn?t take a whole month to research our project; we would take three weeks. We also would put more effort into trying to find a topographic map. Another thing we would do differently is take soil samples from equally spaced locations.

Summary Statement

Using sedimentation layers in soil samples to determine a dominant soil type over an entire Northern California valley.

Help Received

Mother and Father drove us around; Mother and two english teachers corrected spelling and grammar.