



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>Alejandra P. Glover</b>	<b>Project Number</b> <b>J0706</b>
<b>Project Title</b> <b>Soil Absorption</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> In this science project I will find the mass, volume, texture, and consistency of 4 different types of soil. With this knowledge I will test to see which soil absorbs the most water.</p> <p><b>Methods/Materials</b> 1. I will take all of the soil samples and measure their mass, volume, and density to see which soil will absorb the most water. I will also measure each soil's texture. 2. When I get the soil samples I will carefully remove all vegetation from the soil. 3. Next I will use colanders to separate the particles of the soil from each different type of soil. 4. Then I will count for example in the mountain soil there are 12 large rocks and 24 small rocks. This I will do for every soil sample. 5. After I will measure the mass of the content of each colander. For example: the beach soil will be separated into different Ziploc bags and I will measure the mass of each bag separately. 6. Once I have the mass of each bag I will make a graph and record all of the data I have researched and discovered. 7. Then I will take my soil samples, place them in a coffee filter and separately I will pour water onto the soil to see how much water each soil will absorb. 8. Next, I will take the sifted soil and put the sifted soil in the coffee filter and pour water on each type separately. This test will help me determine which part of the soil is the most absorbent. 9. Then I will make a graph and record all of the data I have discovered. 10. Finally I will organize a board to display the findings for my project.</p> <p><b>Results</b> Sifting each of soil types showed me what size particles each type of soil were made of. Pouring a measured amount of water through each soil helped me determine which type of soil holds water the best.</p> <p><b>Conclusions/Discussion</b> I thought that the mountain soil would be the most water absorbent. The soils that were the most water absorbent were the backyard soil and the beach soil. I found out in further research that the mountain soil consists of many rocks, these rocks cannot absorb much water, and in fact the only part of the mountain soil that can absorb the most water is the silt and clay, and the fine sand. The rest of the water just passes through the rocks. The soils with the smaller overall particle size gave the soil a larger surface area for water to stick to.</p>	
<b>Summary Statement</b> My project is about comparing different types of soils for how much water they will absorb.	
<b>Help Received</b> Mother helped with board; aunt helped with expert advice; school provided experimental equipment	