



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Alexia R. Beck	Project Number J0802
Project Title How Do the Different Soil Types of the Central Valley Affect Their Infiltration Rates?	
Abstract Objectives/Goals The purpose of my science project is to determine which soil type has the best or most efficient infiltration rate and which water type makes the soil have a faster infiltration rate. The reason I'm doing this investigation is to determine which soil and water types work best for agricultural/plant growth/etc. Methods/Materials (4) 32oz Gatorade bottles were constructed. Bottoms were cut off, a hole was drilled through the cap and a piece of cheesecloth was placed between the cap and bottle. (1) cups of sandy soil were put in (2) of the bottles and (1) cups of clay were put in (2) of the bottles. (2) cups of tap/hose water were filled in one sandy and one clay bottle and (2) cups of distilled water were filled in one sandy and one clay bottle. Each time water was poured into one of the bottles a timer was started to measure how long it took for the first drip to come through and how long it took for all of the water to finish coming through. The amount of water collected was also measured. Results Overall the sand with hose/tap water had the fastest infiltration rate and the clay with distilled water had the slowest infiltration rate. Conclusions/Discussion After completing my investigation on which soil and water type has a faster infiltration rate, I found that my hypothesis for the soil was correct but my hypothesis for the water was incorrect. My hypothesis for the soil stated that the sand will have a faster infiltration rate and my hypothesis for the water stated that the distilled water will go through the soil the fastest. When the sand was compared to the other soils it was the one to have the fastest infiltration rate and when the tap/ hose water was compared to the distilled water it was the one to go through the soil the fastest. Further testing needed because there was not enough of a difference between the soils and water.	
Summary Statement Testing the Different Soil Types of the Central Valley Affect Their Infiltration Rates.	
Help Received My Dad helped build the testing stands and drilled out the caps.	