



**CALIFORNIA STATE SCIENCE FAIR  
2009 PROJECT SUMMARY**

<b>Name(s)</b> <b>Jedediah A. Fitzgerald</b>	<b>Project Number</b>  29107
<b>Project Title</b> <b>The World's Soil Saver: Comparing Natural Terracing Agents and Their Erosional Runoff</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of my project is to determine the effects of terracing on erosion in order to apply this information to the Jesse Morrow Mountain project. <b>Methods/Materials</b> I used a clear plastic tub and with a nail I placed five holes in the bottom. I then filled the container with 20,967 grams of soil and placed it at a 3-degree slope. I then started at the top of the incline and removed two and a half centimeter deep, six and a half centimeters wide and a thirty centimeter long section of soil. Use a wood block to determine the width/ length, and depth of the section. Start the next section of terracing by placing a wood block at the base of the terrace. Measure at the bottom of the terrace six and a half centimeters in depth, six and a half centimeters in width and thirty centimeters in length. I poured water down the slope every 24 hours and caught it in the cheesecloth at the bottom. Weigh the runoff on a triple beam balance scale every 24 hours. <b>Results</b> I found that the wood blockade was the best natural terracing agent because it had a high of 64.85 grams of soil eroded and a low of 36.05 grams of soil eroded, on average it was 43.3685 grams of soil eroded. On average the wood blockade eroded 22.7840 grams less than the control group and 20.8265 grams less than the pebble blockade. Also on average it eroded 6.87189% of the soil in the container. <b>Conclusions/Discussion</b> This experiment demonstrated that using terracing agents and terracing will decrease erosion on the mining of Jesse Morrow Mountain.	
<b>Summary Statement</b> I used this project to determine with rocks of wood or nothing at all would be more effective on the erosion of Jesse Morrow Mountain.	
<b>Help Received</b> Mother and Sister - purchasing of supplies and project set-up; Father - set-up of board; Teacher - set-up and typing	