



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Alexis M. Meruelo	Project Number J0913
Project Title Do Earthworms Help Refurnish the Soil of Saltwater Spills?	
Abstract	
Objectives/Goals Hypothesis: In my science project I am going to experiment if worms help the dead soil replenish. I have researched on this topic and scientists have found out that earthworms break apart the thatch (layer of dead roots, stems) and pull organic matter into the soil. I strongly believe that the worms do have a huge affect on soil and will help the soil replenish. I also believe this project will be successful and constructive on the benefits of earthworms.	
Methods/Materials Materials: 100 red worms, water, sunlight, 400g of soil (backyard), pens, paper, a notebook, a binder, 1 can, salt, gauze tape, 2g of rabbit food, 1 packet of cilantro seeds, eggshells (for the worm food) 1 spray bottle, 1 graduated cylinder, 1 small cup, 1 spoon, sharpies (for labeling) Procedure: The major steps I did to investigate the problem were, 1. Researched, wrote and read about it 2. Bought all of the materials. The factor or variable I changed in order to test my hypothesis was the different amount of worms in each of the containers. My number of trials was that I had to put (instead of 4 containers) 8 containers and do the project set-up twice. Also, to make the soil highly concentrated with salt I put salt and some rabbit food inside of them containers and had to wait for two weeks. During those two weeks I also put the specific number of worms in the containers. Part B:I took measurements on the moisture of the soil, how many worms there were, and how many seeds germinated.	
Results Results: My final results were very successful. During the first two weeks of part B, I was very upset in thinking that my project was not going to turn out the way I planned, and that was for container 4 to grow cilantro seeds. At the end of the third week right before the due date of my project container 4 (which had the most worms) grew some cilantro seeds and it was a great turn out. The worms in container 4 had successfully helped to replenish the soil and the cilantro seeds grew.	
Conclusions/Discussion Conclusion: My project supports my hypothesis and I#m excited that earthworms have a cause and affect on saltwater spills helping refurnish the soil. From this project I have learned earthworms tunnels in the soul help oxygen and water to enter the soil easily and their casting (waste) enrich it. I hope that my project can be valuable in future environmental issues and encourage a healthy environment. Thank you!	
Summary Statement Earthworms can help replenish the soil of saltwater spills and can have a big impact on the environment.	
Help Received Mother helped design poster and think of ideas; teacher (Mrs. Westheart) helped come up with my project.	