



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Rachael A. ORiordan	Project Number J0628
Project Title Waves of Fury	
Abstract Objectives/Goals My experiment was to find out why does an earthquake occurring on thrust or subduction fault displace more water, creating a tsunami, than an earthquake occurring on a slip strike fault? Methods/Materials My Dad and I made a model to simulate the two earthquakes. In the model to show the earth's plates, we used fixed and movable rocks. To create a slip strike fault earthquake, I slid the rock back and forth. To make a thrust fault earthquake, I let the rock drop through the water against the other rock Results Graph paper at the water and the shore lines captured the data and is noted in the data book. I created a DVD that shows my experiment with water and can show it on a portable DVD player which I will provide. The thrust fault earthquake showed a much higher watermark than the slip strike fault earthquake. Conclusions/Discussion An earthquake on a thrust fault may create a tsunami while slip strike fault motion won't create a tsunami, but could create large waves. An earthquake on a slip strike fault motion doesn't create big waves. A thrust fault has a violent up and down motion which may cause a tsunami.	
Summary Statement My science experiment proves that a thrust fault creates a tsunami and a slip strike fault is not as like to create a tsunami.	
Help Received I came up with the idea for the model, but my Dad helped me to find the parts and build it. My Dad and I built the model. My Dad also helped me to make the DVD.	