



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Alisa Smith	Project Number J0714
Project Title Do North-Facing Beaches in Northern California Have Larger Sand Grains than South-Facing Beaches?	
Abstract	
Objectives/Goals My project was to see if sand grains from the more northerly facing beaches in Northern California were on average larger than the sand grains on the more southerly facing beaches.	
Methods/Materials I used sample containers, a copper tube, a shovel, a rope, a GPS device, a back pack, a compass, rinsing water, aluminum pans, a sand sieve set, a funnel, a flash light, and a paper towel. I went out to the beaches, collected the sand, then brought it back. I used the sand sieves to measure the sand grains' size and was able to determine the average grain size of each sample. With that knowledge, I could compare the sands from the different beaches and figure out what type of beaches had the larger sand grains.	
Results The grain size averages measured from a low of .68 millimeters to a high of 2.04 millimeters, and there seemed to be a correlation between beach orientation. My correlation coefficient (the number that tells how consistent my results were) was .61, a moderate correlation, meaning there was moderate support for my hypothesis.	
Conclusions/Discussion While I did find a correlation, I am not entirely sure that I can make a definite conclusion due to lack of samples. I collected 15 samples on just one day, and, while that may seem like a lot, it would have been much better if I had had the opportunity to gather more. There are plenty of uncontrollable variables existing in the natural world, as well, though I was careful and very consistent. Next time, I certainly would collect more sand, that way my analysis would be more reliable.	
Summary Statement When testing to see if sand grains are larger on the more northern-orientated beaches of Northern California, my data showed a moderate correlation that the sand grains were slightly larger than the sand from the more south-facing beaches.	
Help Received My grandpa helped me gather my sand data, my dad helped me use programs on the computer to analyze my data, and my mom helped me organize my board.	