



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Noah M. Contreras	Project Number J0107
Project Title Rocking the Boat	
Abstract Objectives/Goals My project was conducted to determine what length of fin helps to stabilize a boat the most. My hypothesis is that the longest fin(bilge keel) will steady the boat out the most. Methods/Materials One model boat was constructed out of a 2 liter soda bottle. The boat was then placed in bath tub. The first test was done with no fin. The second test was done with a fin that extended 5 cm. from the boat. The third test was done with a fin extending 4 cm. The final test was conducted with a fin that extended 3cm. The testing was done by tilting the boat to the same amount each time and letting it oscillate until it stopped, the oscillations and amount of elapsed time was recorded. Each test was done with a total of three trials. Results When the boat had the 5 cm. fin on,it oscillated the least and had the least amount of time compared to the others on every trial. Where as, the boat with no fin oscillated the most and had the greatest amount of time that passed. Conclusions/Discussion My conclusion is that the length of the fin does matter for the steadiness of a boat and that a boat with a longer fin will rock less than a boat with a shorter fin.	
Summary Statement The focus of this project was to detremine how the length of a fin helps to stabilize a boat.	
Help Received Dad bought supplies; Mom and Dad proofread the writing; Dad helped with watching the time while the boat rocked	