



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Christina Jade B. Gray	Project Number J1910
Project Title Que Moule	
Abstract Objectives/Goals I started this project because I wanted to do a project on an animal that cannot sting, bite, or harm me in any way. So I chose the harmless mussels. I was very fascinated by their byssal threads and decided to see if two types of mussels from different places had a diversity in the strength of their byssal threads. Methods/Materials There were many materials used during the testing of my project. The materials I used were two groups of <i>Mytilus californianus</i> from different areas(mussels from the harbor and mussels from the jetty), twenty gallons of salt water, a fish tank, a newton scale, a filter, two feet of fishing line, paper, a pencil, and an unfolded paper clip. I put the water in the fish tank with the filter to clean for twenty-four hours. I then put the mussels into the tank for twenty-four hours to adapt to their new environment. The next day I started testing. I tested three times a day for seven days. Each time I ran a test, I would take the newton scale tied to the fishing line and the unfolded paper clip and I would hook one byssal. Then, I would hold the mussels down and pull the newton scale up until the byssal thread snapped. Then I would record my results. Results After testing, I found that the mussels from the jetty had stronger byssal threads because they came from a rougher environment. The mussels from the jetty have to withstand the crashing waves and the powerful tide while the mussels from the harbor only have to withstand a few predators every now and then. Conclusions/Discussion In conclusion, my hypothesis was right. The mussels from the jetty had stronger byssal threads due to the rougher environment. I liked doing this project because the procedures were easy and I liked working with the mussels. Working with the mussels was a complicated job. If I took the mussels out of the water, the anemone attached to the mussels would squirt poison. If I kept the mussels in the tank to test, I would get rashes because of the poison in the water. Overall, I loved working with the mussels and I hope to do another project on mussels.	
Summary Statement My project was about the strength of a mussels' byssal threads.	
Help Received Student helped with board.	