



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Jimmy G. Madigan	Project Number J1419
Project Title Where's the Plankton?	
Objectives/Goals My objective in this project was to find out how and where plankton is most abundant in the Newport Harbor, California. I sampled bay water in five different locations including the Balboa Pier, the West Jetty, the Turning Basin, the Back Bay Bridge, and the Rhine Channel. My hypothesis was that there would be more plankton in the Rhine Channel than anywhere else because of less water flow caused by the tide.	
Abstract My objective in this project was to find out how and where plankton is most abundant in the Newport Harbor, California. I sampled bay water in five different locations including the Balboa Pier, the West Jetty, the Turning Basin, the Back Bay Bridge, and the Rhine Channel. My hypothesis was that there would be more plankton in the Rhine Channel than anywhere else because of less water flow caused by the tide.	
Methods/Materials 1. One jar for every location sampled 2. Strong Wire 3. A pair of panty hose 4. One embroidery hoop 5. Three to five strong rubber bands 6. A small jar or vile for the net 7. Snap swivel 8. Stong Microscope 9. Blank slides and covers 10. Tissue to wipe slides 11. Notebook 12. camera	
Results After sampling all of the locations, I went back home to start to observe. I would stir the sample with a spoon and would put a drop of water on a slide. After looking over the slide through the microscope, I gave it a rating. A - very dense, B - Dense, C - medium and D - low density, and E - none or almost none. After doing this five times for each jar of water, I came up with an average rating. The Rhine Channel ended up with a rating of A - very dense. I also learned from research that plankton prefer calm water.	
Conclusions/Discussion It turned out that my hypothesis was correct. I thought that out of all the samples I observed, the Rhine Channel stood out the most. There was plankton everywhere on the slide. The plankton were more dense in this area because the flow of water is not very strong like it is in other more open areas of the bay. This abundancy of phytoplankton attracts zooplankton such as jelly fish. This increases the population of plankton.	
Summary Statement IMy project, "Where's the Plankton?", is about plankton density in five different locations in Newport Harbor.	
Help Received My Dad drove the boat while I collected the samples in the bay. My Mom helped glue down the map on my project poster board.	