



**CALIFORNIA STATE SCIENCE FAIR
2004 PROJECT SUMMARY**

Name(s) Isabella Tromba; Lara Tromba	Project Number J0927
Project Title Invigorating or Deadly II: The Influence of Fertilizers on Local Ponds	
Abstract Objectives/Goals Our objective was to determine which concentration of Nitrate, Phosphate and combination of the two would lead to the greatest increase in algae growth. Our hypothesis is that the .3% nitrate and phosphate solution will lead to the greatest algae growth and dissolved oxygen. Methods/Materials We made a dilution series from 1% to .01% of Nitrate and Phosphate and then we made a .3% to a .03% of a combination of the two. Then we tested dissolved oxygen and compared algae with dissolved oxygen content. We used a microscope, 100 ml beaker, 2 different kinds of pippetes, an eyedropper, a dissolved oxygen test kit, pond water, cups, tap water, and fertilizer. Results Our results and conclusion was that the .3% solution had the most algae. Both the westlake phosphate and the combination had the highest dissolved oxygen measured in ppm. so, our hypothesis was partly correct. Conclusions/Discussion We think that the phosphate and some Antonellis samples moved onto the second step of eutrophication which is when the bacteria begin breaking down the algea. If this happens there will be more dissolved oxygen because the bacteria use up oxygen and less algae content.	
Summary Statement The effect of Nitrate and Phosphate Fertilizers on agal growth in Antonelli's and Westlake Pond	
Help Received Mother gave us pointers on how to design our display board.	