



**CALIFORNIA STATE SCIENCE FAIR
2006 PROJECT SUMMARY**

Name(s) Stefani D. Dias	Project Number J1907
Project Title Is the Gulping Rate of a Tropical Fish Affected by the Change in Water Temperature?	
Abstract Objectives/Goals The question I am researching this year for Science Fair falls under the category of Zoology. I am using Tropical Fish to investigate and research my big question #Is the gulping rate of a Tropical Fish affected by the change in water temperature?# What I am hoping to determine with this project is if the gulping rate of the Tropical Fish will be affected by the different changes in water temperature. Methods/Materials In my experiment I will need to follow a series of procedures to complete it. To begin I must buy the proper equipment. Then I will create a stable environment for the fish. After the day of placing the fish in the tank and completing the procedures stated above I will then do nothing but care for them and observe them for two weeks so that the fish can get used to my presence. Every week I will clean the tank and follow basically the same procedures as above, but this time I must wash the tank and only put the fish in the tank after an hour. After two weeks, I will need a new filter for the filter. After two weeks of becoming familiar with the fish and observing them I will start my experiment. First, I will begin by turning on the heaters in two of the tanks and leave one at regular room (76°F) temperature. One tank's temperature, I will change to 78°F and the other tank will be changed to 77°F. Then after two weeks I will count the gulps each individual pair fish have taken and then I record all my data and do the same with the other tanks and fish. Then I will change the temperature once again in the tanks. The same process as above will be conducted two more times at varying temperatures. Then I will record the results and come up with a conclusion. These are the steps that I will need to complete my experiment and answer my big question #Is the gulping rate of a Tropical Fish affected by the change in water temperature?# Results My Hypothesis was correct based on the recorded data and results. The change in gulping rate from temperature to temperature was insignificant. Conclusions/Discussion I have done all my research and based on that and my observations I think that the gulping rate is not affected by water temperature, but can be affected by how clean the water is and how well kept the equipment and fish are cared for. Tropical Fish should be able to adjust to any temperature ranging for 76°F-78°F and their gulping rate still not be affected by the change in water temperature.	
Summary Statement Will the gulping rate of Tropical Fish be affected by the change in Water temperature?	
Help Received My friend Sara Noriega helped me by timing the time with a clock. My teacher help me with typing some of the papers and editing them.	