



**CALIFORNIA STATE SCIENCE FAIR
2013 PROJECT SUMMARY**

Name(s) Madison H. White	Project Number J2222
Project Title Livin' Life Like an Angelfish	
Objectives/Goals In doing this project, I am trying to proe to people that owning and caring for fish is not something that should always be taken lightly. My goal is to show people that Angelfish is a breed of fish that need more then more than the normal amount of attention and care compared to your normal easy-to-care-for Wal-Mart fish.	
Abstract Methods/Materials Three separte 20 gallon fish tanks with identical size, shape and contents, but different internal temperatures and pH levels, were constructed. One fish tank, specified as tank #1, had an internal environment set with a pH level of 0 pH and a temperature of 60 degrees Fahrenheit. Another fish tank, specified as tank #2, had an internal environment set with a pH level of 7.0 pH and a temperature of 75 degrees Fahrenheit. The third fish tank, specified as tank #3, had an internal environment set with a pH level of 3.0 pH and a temperature of 85 degrees Fahrenheit. The tanks were tested for constant regularity and observed constantly to record the varied responses to the different levels and temperatures.	
Results Of the three separte tanks, the tank specified as tank #2 with the pH level 7.0 pH and temperature of 75 degrees Fahrenheit, was the tank that held the best response of pH and temperature from the fish. The other tanks, tank #1 and tank #3, had much more negative responses. The tank that had the best results was the tank that I predicted would be the best; the fish were completely happy and thrived much more than the other two tanks.	
Conclusions/Discussion The bes aquarium environment for angelfish to thrive in is one that is closely related to their natural environment. A tank with a pH level ranging between 6.4 to 6.9 pH, and with a temperature between 74 and 80 degrees Fahrenheit is the best for them. Also, at least one live plant, a low-power filter, and something to be used by the fish as shelter, also improves the aquarium environment drastically. These requirements and recomendations closely resemble tank #2, which is where the fish responded best.	
Summary Statement This project is about the best possible tank-environment, ranging from the plants used all the way to the chemical amounts and temperatures necessary for Angelfish to live and thrive in.	
Help Received Tutor helped type and organize report and project; Mother helped type report and gather information	