



**CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY**

Name(s) Michael A. Zuniga	Project Number 22396
Project Title Determining the Effects of Various Alcohol Levels on the Heart Rate of Daphnia	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My objective was to find if alcohol is really a depressant. I'll determine this by using a daphnia's heartrate after being exposed to various alcohol rates (by volume).</p> <p>Methods/Materials I scooped up the daphnia with a spoon and placed on a single microscope slide then added 2-3 drops of 1 of my test liquids. I then counted the heartbeats for 10 seconds, and multiplied the result by 6 to get the heartrate for 1 minute. I tested alcohol levels of 1.2%, 5%, 10%, and 12% alcohol by volume.</p> <p>Results The alcohol increased the heart rate. The 12% alcohol level increased the heartrate the most.</p> <p>Conclusions/Discussion My hypothesis was wrong. The heartrate increased when exposed to the higher alcohol contents. This disproves the theory that alcohol is a cardiac depressant.</p>	
Summary Statement Determining if alcohol affects the heartrate of daphnia.	
Help Received Teacher helped with experiment	