



**CALIFORNIA STATE SCIENCE FAIR
2005 PROJECT SUMMARY**

Name(s) Ellie A. Krumpholz	Project Number S0510
Project Title The Wonders of Water	
Objectives/Goals The object of my experiment is to determine whether temperature affects the salinity and pH level of ocean water.	
Abstract	
Methods/Materials Materials: Ocean water, three 5 gallon buckets, two heaters, hydrometer, pH testing kit. Procedure: 1. Fill three 5 gallon buckets with 5 gallons of ocean water each 2. Leave one bucket (labeled #A#) at room temperature 3. Leave one bucket (labeled #B#) at 80 degrees Fahrenheit 4. Leave one bucket (labeled #C#) at 90 degrees Fahrenheit 5. Every other day, measure the salinity using a hydrometer and the pH level using a pH kit of all three buckets 6. Record results and observations in a data log	
Results Based on my results, I have learned that my hypothesis is incorrect and that temperature does affect both the salinity and pH level of ocean water. I have come to this conclusion because two of the three buckets that I used for my experiment, Bucket #B# and Bucket #C,# now have different salinity levels and pH levels than they did at the beginning of my experiment. I have also found that the two heated buckets, Bucket #B# and Bucket #C,# now have less water than they did at the start of my experiment. This is because the heat caused the water to evaporate. I have learned that when the water evaporates, the salt does not evaporate with the water. Instead, the salt stays in the bucket. I know that this statement is true because the salinity level is greater each time I measure it. As for the pH level, it increased in the two heated buckets as well. The pH level and salinity level is greatest in the hottest bucket, Bucket #C,# and lowest in the bucket left at room temperature, Bucket #A.#	
Conclusions/Discussion I have come to the final conclusion that temperature does indeed affect both the salinity and pH level of ocean water.	
Summary Statement My project demonstrates how temperature affects the salinity and pH level of ocean water.	
Help Received No help.	