



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Kalee L. DeHamer</b>	<b>Project Number</b> <b>J2209</b>
<b>Project Title</b> <b>Paper Towels, Cloths, or Chamois: Which One Is More Absorbent?</b>	
<b>Objectives/Goals</b> I chose this experiment because I wanted to find a re-usable, more absorbent alternative to paper towels. I wanted to conduct an experiment that would help the environment while also saving people money. Using paper towels is not good for the environment because they are made from trees and fill up many land dumps. Because they are disposable, people spend a lot of money buying new paper towels whenever they run out. I hypothesized that the synthetic chamois would absorb the most. My independent variable was the type of material and my dependent variable was how much the material absorbed. The variables that I controlled were the size of the material, how much water was in the syringe, and the set up was identical, dry and free of water for each trial.	
<b>Abstract</b> The four different types of materials I used were leather chamois, synthetic chamois, kitchen cloths, and paper towels. I tested the materials by suspending them above a measuring cup used to catch excess water. Then, I filled the syringe up to the three milliliter mark, held it above the center of the material, and dropped water onto it one tenth of a milliliter at a time, allowing time for each drop to soak in. I continued doing this until I saw a drop fall through the material. I then recorded the amount of water it was able to hold.	
<b>Methods/Materials</b> The average amount of water held for each material was 1.8 ml for the paper towel, 3.9 ml for the synthetic chamois, 2.9 ml for the leather chamois, and 5.7 ml for the kitchen cloth.	
<b>Results</b> My conclusion was that a kitchen cloth is the best re-usable alternative to paper towels.	
<b>Conclusions/Discussion</b>	
<b>Summary Statement</b> My project is about capillary action, surface tension, and absorption in common household materials.	
<b>Help Received</b> My parents helped me keep the articles straight while gluing them onto my board and proof read my writing to help me find mistakes.	