CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)
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Project Number
J1113

Project Title
A Thirst For Spills: Tests of Paper Towel Fiber Structures

Abstract

Objectives/Goals
The goal of my project was to determine which paper towel fiber structure was most absorbent. I hypothesized that the fiber structure of the Brawny Prestige Prints paper towels would be the most absorbent.

Methods/Materials
Five brands of paper towels were viewed through a 250x microscope, taken pictures of, weighed, and analyzed. The paper towels were placed on a 1/4 cup spill of orange soda for five seconds each, and then weighed directly after that on a gram scale. The original weight was subtracted from the new weight to end up with the amount absorbed. Each brand was tested five times, and the official results were the average of the five tests.

Results
The Kleenex Viva paper towels consistantly absorbed the most orange soda throughout all five trials, and the Scott Towels absorbed the least, proving my hypothesis wrong.

Conclusions/Discussion
My conclusion is that paper towels with more air pockets in their fiber structure will pick up more of a spill than paper towels with thicker fiber strands.

Summary Statement
My project was testing different brands of paper towels in order to discover which fiber structure is most absorbent.

Help Received
Mrs. Glembotski helped me get in touch with people at SDSU in order to use a microscope there, Mrs. Wallin provided me with a gram scale, and my mom provided the other necessary materials for my project.