## CALIFORNIA STATE SCIENCE FAIR 2006 PROJECT SUMMARY

## Name(s)

## Lauren S. Mittelman

Project Number
J1121

## Project Title

Seize That Stain!

## Objectives/Goals

My project goal was to determine which laundry detergent works most effectively on a pizza sauce stain. I used five different detergents. Besides the detergents, nothing in each trial was changed.

## Methods/Materials

MATERIALS
Five two-tablespoon quantities of Tide laundry detergent (liquid), Cheer laundry detergent (liquid), All laundry detergent (liquid), Purex laundry detergent(liquid), and Gain laundry detergent(liquid),
Teaspoon for measuring
Tablespoon for measuring
Twenty-five one-teaspoon amounts of pizza sauce
Twenty-five three-inch by three-inch pieces of cotton
One glass bowl
One toothbrush
One porcelain plate
One digital timer
One water temperature thermometer
Two tweezers
Seventy-five cups of water at 106 degrees Fahrenheit
I hand washed pieces of cotton laundry detergent with pizza sauce stained into the cotton. I mimicked how a washing machine would wash this item by hand. Doing my experiment, I didn't change any aspect except for the laundry detergent. You can see how I conducted each trial by looking at my procedures in my notebook or on my backboard.

## Results

My results varied much from detergent to detergent. Each laundry detergent had a specific number which was the average coming from all the trials of that specific detergent. The averages are as follows:
Tide-8.2; All-7.4; Cheer-7; Purex-6.2; and Gain-5.4. You can see what the color of each average on my scale of results in my notebook, or on my backboard.
Conclusions/Discussion
My conclusion was that Tide laundry detergent worked most effectively on stains. This might be because the Tide laundry detergent formula leaves out quite a bit of water to make their formula more
Summary Statement
I tested different laundry detergent brands to see which one was most effective on a pizza sauce stain.

## Help Received

Mother paid for and bought all supplies; Science teacher answered my questions.

