

CALIFORNIA STATE SCIENCE FAIR 2010 PROJECT SUMMARY

Name(s)

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Project Number

J2224

Project Title

The Battle Against Chlorine

Abstract

Objectives/Goals

My objective was to figure out which brand of swimsuit--Nike, Speedo, or Dolfin--held up best to chlorine.

Methods/Materials

I purchased a Nike swimsuit, a Dolfin swimsuit, and a Speedo swimsuit. I also needed chlorine, 3 buckets, and eye droppers. Water was needed as well to make the chlorine-water solution. I used 3 five-pound weights to stretch the swimsuits. I also needed a broomstick handle to hang the swimsuits on. Finally, a chlorine testing kit was necessary to maintain the proper chlorine level throughout the 2 weeks of chlorine exposure. I soaked the swimsuits in chlorine for 2 weeks, and I measured how much the swimsuits stretched by hanging a weight at the bottom of each swimsuit. I measured the amount of stretch from no chlorine exposure to 1 week of chlorine exposure and from no chlorine exposure to 2 weeks of chlorine exposure.

Results

After 1 week of chlorine exposure, Speedo had stretched .5 inches, Nike had stretched 1.25 inches, and Dolfin had stretched 1 inch. After 2 weeks of chlorine exposure, Nike and Dolfin swimsuits had 2.25 inches of stretch, while Speedo had 3 inches of stretch.

Conclusions/Discussion

I conclude that, when buying swimsuits from the many choices, purchase the Nike or Dolfin brand of swimsuit. They stretch out the least after prolonged chlorine exposure, therefore giving a swimmer better quality for their money. By having less stretch, a swimsuit creates less drag and helps a swimmer move quicker through the water.

Summary Statement

My project tested which brand of swimsuit (Speedo, Nike, or Dolfin) stretched the least after two weeks of chlorine exposure.

Help Received

Parents bought supplies; father helped with some math; mother helped handle chlorine; mother took pictures