CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY

Name(s)
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Project Number
S1401

Project Title
Pick a Turn, The Fastest Turn

Abstract

Objectives/Goals
Which turn is the most efficient for the transition between Backstroke to Breaststroke: the "Dropdown" turn, the "Swivel" turn, of the "Flip" turn?

Methods/Materials
Materials needed were: pen/pencil, data sheets, swimmers, and a stopwatch.
The Methods were: 1) Obtain materials listed above; 2) Have swimmers perform the "Dropdown" turn; 3) Record time on data sheets; 4) Have swimmers perform the "Swivel" turn; 5) Record time on data sheets; 6) Have swimmers perform the "Flip" turn; 7) Record time on data sheets; 8) Repeat steps 2-7 as many times as necessary; 9) Compare the averages of the turns; 10) Conclude

Results
The "Dropdown" turn proved to be the fastest transition turn when compared to the "Swivel" turn and "Flip" turn.

Conclusions/Discussion
The "Dropdown" turn was found to be faster overall, when compared to the "Swivel" turn and "Flip" turn. Originally, it was thought that the "Flip" turn would be more effective, and that height and/or body mass differences would effect teh times. Not only were both disproved, but it was additionally found that more or less oxygen did not effect the results. The swimmers stayed around the same time after a strenuous workout as with an easier one.

Summary Statement
This project was on testing which transition turn from Backstroke to Breaststroke was the most efficient for swimmers: the "Dropdown" turn, the "Swivel" turn, or the "Flip turn.

Help Received
My parents gave me the idea for this project and woke up at five in the morning to drive me to the pool; my sister, Olivia, for doing the same turns over and over again; Genie Chung, who performed the turns; Jenna Adams, who performed the turns; and Will Prier, who performed the turns.