



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

Name(s) Noam Baltinester	Project Number J1902
Project Title Soccer Ball Stitching: Does It Matter?	
Abstract Objectives/Goals This project took place to see whether or not the stitching of a soccer ball affects how far the ball travels. Methods/Materials Materials: This project consisted of the following things: a #Kicking# machine and four soccer balls, a measuring tape and paper and pencils to record data. Procedures: The machine is a swinging hammer suspended by a metal rod. The ball was placed on a designated spot on the bottom plank of wood (pg. 34). The balls were hit one after the other until each one was hit 50 times. The soccer balls were hit in order from 12 panels to 32 panels. The balls were hit in this system so that if there was a factor in the weather or anything else it would affect all the balls equally. After each ball was hit the distance traveled was recorded and later recorded on an excel spread sheet. Results Results: The results were inconclusive and the hypothesis was incorrect. The ball with the least amount of stitching did not travel the farthest. The reason the results were inconclusive is that there were many clashing results. Ball with 32 panels had the farthest average distance and ball with 30 panels had the shortest even though the stitching was very similar. On the other hand, the ball with 12 panels and the one with 32 panels traveled just about the same average distance but had totally different stitching patterns. The chance that the ball travels more or less because of the material it#s made from is ruled out because balls 12 panels and the one with 14 panels were made from the same material but had a significant gap between the distances. Conclusions/Discussion Conclusion: Although the results were inconclusive, a good amount of information is still available from the experiment. Based on the results it can be suggested to use the same ball type in tournaments so that all is fair and equal. Also I found out that the biggest reason most balls travel farther than others is the material the bladder is made of. Also if the balls are hand stitched or machine stitched makes a difference. Hand stitched is a tighter stitching and it lasts longer while machine stitching is more visible and does not help the ball travel farther.	
Summary Statement to see if the stitching (pannels) of the soccer ball affected if the ball would travel farther than other balls.	
Help Received Dad helped build machine; teacher helped with understanding how to write abstract etc.;	