



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Christopher J. Rodriguez	Project Number 36231
Project Title What's the Coolest Turf?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this project is to find an infill and/or turf backing that is the coolest. This research can be used for football, soccer, and other sports fields in the future, instead of the extremely hot, and extremely toxic rubber infill that is commonly used now a days.</p> <p>Methods/Materials For my experiments, I used multiple turf of samples about 100 square inches, and filled each one of them with the same amount of the different infills available. I placed each of them under the Sun at the same time and place a recorded the temperatures in 20 minute intervals over 2 hours using an digital thermometer.</p> <p>Results Many tests were conducted under the sun to determine which type of infill and/or turf backing stayed the coolest. After conducting the tests, I realized that the type of infill, and the backing of the turf directly affected its temperature.</p> <p>Conclusions/Discussion The results of my experiment show that the soy backing on the turf samples keeps the turf cooler then what is regularly used. Also, the pet non-odor infill and the sand infill kept the turf cooler than the other types of infill. This data shows that if owners of sports fields are going to use turf, then they should use turf with a soy backing, and use sand infill and pet non-odor infill for the fields.</p>	
Summary Statement I demonstrated what the effects are of using different types of infill and backings on artificial grass when put under the Sun.	
Help Received Jose Melgoza, a certified youth soccer coach, Gave me the idea for the project, what materials I should use, and how to preform my experiments.	