

Socc-“air”

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## Abstract

Over time the outside of a soccer ball has evolved and humans' knowledge of chemicals and the behavior of elements has increased dramatically. Gases such as nitrogen have been introduced into the world of sports, for example, when the tires of NASCAR tires were filled with nitrogen. No one ever said NASCAR was the only ones allowed to use gases to better performance so how come no one ever tried out that idea with different sports? From that question came another question: is there a certain gas that could improve the performance of a soccer ball? To test this thought, one would need soccer balls, different kinds of gases, people to test the balls, and a way to record the observations of the testers. There were many variables to take into consideration such as deflating the balls in order to get out as much regular air as possible, which order you do the balls in, which field to use and how quickly will the balls lose the air inside them? When tested, it was concluded that the regular air ball got the highest satisfaction score, with a satisfaction rate of 80.83%, beating out the next closest element by 13.3%. With more time and better resources, it would be possible to get more consistent and quantifiable results but almost every experiment has flaws in its first attempt.