



CALIFORNIA STATE SCIENCE FAIR 2012 PROJECT SUMMARY

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Project Title Sturdy Birdie	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals At our school, many people are interested in badminton and at their games or practices, they always try to choose the shuttlecocks with no damages. Some players believe that the shuttlecocks that are ripped usually affect their games; chance of winning. So by doing this project, we are trying to prove if the shuttlecocks that are ruined, will really affect the matches.</p> <p>Methods/Materials Our independent variable is the damage on the shuttlecock. We would control this by measuring each cut to make sure it follows are experiment. To make sure we were doing it as accurate it possible we would place the meter stick on the table and then cut the shuttlecock. When we cut the shuttlecocks, we would place the birdie right next to the meter stick side by side. After we get the right number of depths and cuts, we started to perform our experiment. The dependent variable is the decrease in speed. We controlled this by dropping each shuttlecock at a time, from the same hight every single time. After we cut the shuttlecock to the desired height we would then place it at the top of the meter stick and drop it. The cork of the shuttlecock would be at the edge of the meter stick. Which is a meter, but we captured our experiments in the range of 20 centimeters or 0.2 meters to have better control over the time the shuttlecocks took to fall.</p> <p>Results The data we collected has made our hypothesis inconclusive because it does not show if the damages has affected the shuttlecock#s speed of increase, or decrease. The reason for this is because we have measured our experiments at a low speed. Next time we could try again with a higher speed. Plus a better and more effective method.</p> <p>Conclusions/Discussion Our data shows that our hypothesis is inconclusive. The reasons for receiving these conclusions was because we might have made the cuts# depth slightly wrong, or it wasn#t captured to be measured right when we recorded it. Our data doesn#t specifically conclude if the damages has made our shuttlecocks increase in speed, or decrease in speed.</p>	
Summary Statement The decrease in velocity caused by the damages on the shuttlecocks is affected by air resistance.	
Help Received Teacher helped with providing equipments	