



**CALIFORNIA STATE SCIENCE FAIR  
2011 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Joana P. Ramirez</b>  | <b>Project Number</b><br><b>J0123</b> |
| <b>Project Title</b><br><b>The Effect of Shape on Parachute Speed</b>  |                                       |
| <p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b><br/>The objective was to determine the effect of parachute shape on its descending speed.</p> <p><b>Methods/Materials</b><br/>First, I gathered my materials and found a good spot to drop my parachutes. My materials consisted of plastic grocery bags, ruler, measuring tape, clay, stop watch, and a ladder. Then, I made a parachute with a rounded shape and five more with different shapes. Then, I attached a mass of 10g to each one. After that, I dropped one parachute at a time from a height of ten feet, and I recorded the time it took to land on the ground. I repeated this 100 times for each parachute having the same area and mass.</p> <p><b>Results</b><br/>My results showed that the shape of the parachute did not, in fact, affect the descending speed. My hypothesis was not supported by the data, because the results have shown that the different shaped parachutes did not differ significantly in descending times.</p> <p><b>Conclusions/Discussion</b><br/>My hypothesis was not supported by the data, because the results have shown that the different shaped parachutes did not differ significantly in descending times. My results are useful in everyday life, because people can realize that the shape of the parachute will not affect its descending speed. Thus, it does not matter what parachutes shapes are used in emergencies, military use, or skydiving, the descending speed is relatively the same.</p> |                                       |
| <b>Summary Statement</b><br>My project is about the effect of parachute shape on its descending speed.   |                                       |
| <b>Help Received</b><br>Father helped with timing the descending of the parachute, and my mother helped with making the parachutes.  |                                       |