CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY

Name(s)
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Project Number
J0130

Project Title
How Does Parachute Material Affect Speed?

Abstract

Objectives/Goals
My obhjective was to determine which parachute made from a common household material would have the closest drop speed to a zero porosity, real parachute material.

Methods/Materials
Five parachutes were made of identical size and shape. The first was made of 0 porosity material similar to a real parachute, one was of newspaper, one plastic, one from a t-shirt, and one from a pillowcase. Each was dropped from 10 feet, 5 trials each. The drop was timed from when it was released to when it hit the ground. Using the distance and the average time in the velocity formula, I determined the speed per second.

Results
The plastic bag parachute had the closest drop time to the control. the newspaper and pillowcase parachutes were the next closest, leaving the t-shirt parachute with the largest difference of seconds per foot to the control.

Conclusions/Discussion
I concluded the plastic bags probably have 0 porosity like the control parachute. It is important to know the porosity of a parachute material because it affects its drop speed.

Summary Statement
My project determined which parachute made from household materials would have the closest drop speed to a real parachute.

Help Received
Mother, Susan Swing, helped edit the report. Grandpa, Howard Swing, helped design and assemble the parachute hanger. Southside School, Dr. Forbush, reviewed project and made recommendations.