



**CALIFORNIA STATE SCIENCE FAIR
2014 PROJECT SUMMARY**

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| Name(s) Imelda Ceja; Annika Khan | Project Number J0105 |
| Project Title Parachutes: Does Size Matter? | |
| <p style="text-align: center;">Abstract</p> <p>Objectives/Goals Our project was to determine if parachutes with smaller surface areas are quicker to fall to the ground than parachutes with larger surface areas. We believe that if we change the size of the parachutes, then the smaller parachutes will fall quicker to the ground than the larger ones.</p> <p>Methods/Materials Three different sized parachutes: 20x20 cm, 30x30 cm, and 50x50 cm were constructed. The parachutes were tested by being timed on how long it takes for them to reach the ground. The parachutes were made out of the same garbage bag material, the strings for the parachutes were 40 cm long, all parachutes had the same amount of washers attached, and the twist ties remained 10 cm long.</p> <p>Results The 20x20 cm parachute consistently had the quickest time for falling to the ground. Both the 30x30 cm and the 50x50 cm had slower landing times than the 20x20 cm parachute. The smaller parachutes had faster landing times than the larger ones.</p> <p>Conclusions/Discussion Our conclusion was that smaller parachutes are quicker due to the small amount of surface area. We can conclude that because a smaller surface area means a more decreased amount of drag force. Drag force causes a parachute to go downwards.</p> | |
| Summary Statement Parachutes were built to determine which will descend the slowest. | |
| Help Received Washers borrowed from teacher. Parents supplied rest of the materials. | |