CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY

Name(s)
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Project Number
J2016

Project Title
Bicycle Helmet Bust

Abstract

Objectives/Goals
The purpose of my experiment was to find out if the brand or price of children#s bicycle helmets affect the integrity of the helmet in a crash.

Methods/Materials
I tested various types and brands of helmets, from different manufacturers and price ranges by dropping a series of weights on the top of each helmet at a fixed height of 1.2192 meters (4 feet). I then recorded the weight at which the helmet first cracked, and the weight at which the helmet#s integrity was considered completely compromised.I repeated the procedure once more with identical helmets and averaged the results.

Results
The results were that more expensive helmets did not provide any greater structural integrity in comparison to the less expensive helmets.

Conclusions/Discussion
The results were that more expensive helmets did not provide any greater structural integrity in comparison to the less expensive helmets.
There was an outlier, the C-Preme Crash. This helmet was a mid-priced helmet with a rubber mohawk. The mohawk seemed to help protect the helmet, and it performed substantially better than the other helmets.

Summary Statement
Does the brand or price of a childrens bicycle helmet affect the intefrity of the helmet in a crash?

Help Received
Father payed for the helmets.