



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Matthew L. Lanum	Project Number 35772
Project Title Bicycle Helmet Bust	
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. Abstract 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 1.192 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 children's bicycle helmet affect the integrity of the helmet in a crash?	
Help Received Father paid for the helmets.	