



**CALIFORNIA STATE SCIENCE FAIR
2016 PROJECT SUMMARY**

Name(s) Dylan J. Taitano	Project Number 36394
Project Title Paintball Ammo: Is the More Expensive Brand Worth the Price?	
Abstract Objectives/Goals The objective of this study is to determine the efficacy of paintball ammunition at different price points. Methods/Materials Method: Make the wooden target. Measure 10 meters away. Shoot 50 inexpensive paintballs at the target. Measure how close each shot is from the center. Repeat for the reasonable and expensive paintballs. Move to 15 meters from the target. Repeat shooting process for all 3 types of paintballs. Move to 20 meters from the target and repeat process for all 3 types of paintballs. Materials: 1 beginner paintball gun, 2 tanks of carbon dioxide, safety goggles, 500 rounds of inexpensive paintballs, 500 rounds of reasonably priced paintballs, 500 rounds of expensive paintballs, and 1 wooden target Results After each of the paintball shots (180 shots in total), the distance from the target's center and the quadrant in which it landed was recorded. This provided a good variety of data to review. The data showed that there was not a statistical difference between the accuracy of the more expensive paintballs and the less expensive paintballs. Conclusions/Discussion After testing the brands, it was determined that the less expensive brand did not do any better or worse than the medium or the expensive brand. After further review, the inexpensive brand and the medium brand were the same. When comparing the inexpensive brand and the expensive brand, the inexpensive brand was more accurate. This is surprising because people generally think that more expensive items are better. Based on this experiment, people who want to buy paintballs do not need to pay the higher prices. Less expensive brands are just as effective. However, different versions of the paintball game may not support this conclusion (competitive vs. hobby)	
Summary Statement Based on my tests, there is no statistical difference in accuracy between the differently priced paintballs.	
Help Received My uncle, who is an engineer, helped me build the wooden target.	