



**CALIFORNIA STATE SCIENCE FAIR
2017 PROJECT SUMMARY**

Name(s) Jack Daffin	Project Number J0308
Project Title Nitromethane Engines	
Abstract Objectives/Goals The purpose of my project was to determine if the RPMs would differ when more fuel is added to a nitromethane engine. Methods/Materials I used a household drill with an adapter to manually start a .21 nitromethane engine. A glow plug igniter was used to ensure the drill was going clockwise, and the RPMs were measured when the drill would cause the engine motor to turn over. RPMs were measured at 3 settings: idle, half throttle and full throttle. Results The data I collected indicated that the RPMs rose as more throttle was given. The result in idle was 7,018 RPMs; at half throttle the result was 13,046 RPMs; and at full throttle the result was a high of 20,647 RPMs. These are the average results for each throttle setting. Conclusions/Discussion In conclusion, the results of the testing proved my hypothesis correct in that the RPMs of a nitromethane engine increase when more fuel is added. My project demonstrates how nitromethane engines differ from every day gasoline engines and how RPMs differed from each other.	
Summary Statement My project is about nitromethane engines based on the hypothesis that when more fuel is added to a nitromethane engine the RPMs will increase.	
Help Received None. I designed, built, and performed the experiments myself with adult supervision.	