



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Kali E. Nishimine	Project Number J0714
Project Title Does Red Bull Improve Cognitive Performance?	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study is to determine the effects of drinking Red Bull on the test subjects' performance of cognitive tasks.</p> <p>Methods/Materials Stopwatch, "Perfection" game, 24 Red Bulls. Volunteers were asked to complete the task of fitting various geometrically shaped and sized pieces into their corresponding spaces while being timed. Upon completion, subjects repeated the timed task 15 minutes after drinking a can of Red Bull.</p> <p>Results Although 26 people volunteered for the study, only 24 people completed the study citing either difficulty with fine motor skills or due to health concerns with consuming energy drinks. The difference in times indicated that the majority of subjects performed better after consuming Red Bull. In fact, only 3 subjects increased their performance times and the average subject improving their test time by 25 seconds.</p> <p>Conclusions/Discussion Based on the data collected, it appears that consumption of Red Bull should improve performance in hand-eye coordination, shape recognition and sorting of varied size and geometric pieces. While this study does not prove an increase of cognition when consuming Red Bull, it does imply that there is a marked improvement in performance for most people. Further study is needed to ascertain whether the effects of coffee or a caffeinated soda would have similar outcomes as drinking Red Bull.</p>	
Summary Statement As measured by the time it took to complete different geometric shape and size sorting task, I found that Red Bull improved most test subjects' performance.	
Help Received I designed the project after researching energy drink studies and discussing specific cognitive tests with my mentor Lynda Kubota.	