



**CALIFORNIA STATE SCIENCE FAIR
2012 PROJECT SUMMARY**

Name(s) Nathan J. Matalavage	Project Number J0512
Project Title Spin That Wheel	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals There is a lot of talk these days about high protien versus no protien, and high carbohydrate diets versus low carb diets. I wanted to see which one of these diets would produce more energy if eaten exclusively.</p> <p>Methods/Materials I obtained 2 mice from the local pet store. I seperated each mouse in it's own self contained tank. In that tank the mouse was give bedding, water, and a seperate bowl of food. I took a hampster wheel and a bicycle pedemoter and hooked the pedemoter up to the hampster wheel so that it would register and count each rotation on the wheel. 1 mouse was fed only carbohydrates, (different carbohydrates were switched in and out of his diet on a dialy basis). The other mouse was fed only protiens (again, a wide range of high protien foods were switched in and out daily). The mice were fed in the morning and in the evening. In the evening each mouse was given the food, then allowed a 2 hour span to excercise on the wheel. This is the only time that the wheel was left inside of the cage. The number of rotations during that 2 hour period were counted and noted on the chart. This was done for a period for 30 days. We then waited about 1 month and swithed the mice, testing each mouse with the opposite food source. We did this in order to make sure that the energy was not just from the mouse itself, but from the source of food.</p> <p>Results In testing the mice, it was my opinion that the mouse with the high carbohydrate diet would produce more energy than the mouse with the high protien diet. In my research I found it to be just the opposit. In my testing I found that the mouse that was tested, eating only high protien, was much more active than the mouse that consumed only carbohydrates. This also rang true when the mice were switched and re-tested using the oposite source of food.</p> <p>Conclusions/Discussion In my conclusion I found that although carbohydrates are a great sounce of energy, it is the protien, and protiens ability to sustain that energy, that made it the winner in this experiment.</p>	
Summary Statement Comparing a high protien diet to a high carbohydrate diet, and discovering which one of these will produce the most energy.	
Help Received My mother helped me with the layout of the poster board.	