



**CALIFORNIA STATE SCIENCE FAIR  
2013 PROJECT SUMMARY**

<b>Name(s)</b> <b>Samantha Simmons</b>	<b>Project Number</b> <b>J1723</b>
<b>Project Title</b> <b>The Effects of Sugar on My Hamster's Activities</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective was to determine if sugar would affect my hamster's activities. My hypothesis is when sugar is given to my hamster; it would become more active by spending more time running, less time walking around and more time resting than it would when not given sugar. <b>Methods/Materials</b> I chose to monitor my hamster on two separate nights for an hour each time. This is because hamsters are nocturnal and most active at night. Sugar would be giving in the drinking water. The first night would be with plain water and the second night with sugar water. I did the monitoring at my house where my hamster is use to the environment.  To make the sugar water I dissolved one teaspoon of pure cane sugar in one cup of hot water. I let the water cool to room temperature before I put it in the cage.  Prior to the start of the tests, I took the water away from my hamster for an hour. I did this so it would be at least 60 minutes from the last time it drank, it would be thirsty and I would have a starting point. After waiting for an hour, the water or sugar water was put in the cage with the hamster. Once the hamster drank, the 60 minutes of monitoring would begin. Using a stop watch and pen and paper, I tracked and recorded how long the hamster walked around its cage, ran on the wheel, rested, drank, ate and defecated. <b>Results</b> After drinking the plain water, my hamster spent 37% of its time resting (22 minutes) and 27% of the time walking (16 minutes 19 seconds). After drinking sugar water, it spent 48% of the time walking (29 minutes) and 29% of the time resting (13 minutes 26 seconds).  There was a greater amount of time spent drinking sugar water than plain water and deficated only during the time observed when sugar water was provided. <b>Conclusions/Discussion</b> The results of my test revealed that sugar did affect my hamster's behavior. When given sugar water, my hamster drank a lot more, walked more than it ran, and it urinated more often. I also realized there were similar results to the scientist's findings that I reviewed during my project research.  When my teacher and I talked about my project, we talked about my sample size of just one hamster. I	
<b>Summary Statement</b> Realizing how sugar affects my hamster's active behavior.	
<b>Help Received</b> Consulted with my teacher on preparing for a science project and discussed with him what I observed and where I may find research on similar topics. My mother helped purchasing my hamster, typing the report and laying out the presentation board.	