



# CALIFORNIA SCIENCE & ENGINEERING FAIR 2018 PROJECT SUMMARY

<b>Name(s)</b> <b>Haley J. Lopez</b>	<b>Project Number</b>  38630
<b>Project Title</b> <b>The Impact of a Caloric Restrictive Diet on Crickets</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective of this experiment was to use crickets as models to investigate whether eating a caloric limited diet increased the lifespan of crickets compared to eating a normal or excessive amount of food. My hypothesis was that if a group of crickets were fed a deficient amount of food (referred to as Group 1), then this group would live longer than a group that was fed the normal amount and another group that was fed an excess amount (Group 2 and Group 3, respectively). <b>Methods/Materials</b> The materials used were 24 crickets, a homemade cricket home, rice, water gels, and a plastic bag. The experimental design consisted of measuring how much rice crickets ate and then figuring out what was the least amount of food crickets can be fed; the crickets were then fed at one week intervals for one month. <b>Results</b> The results indicate that Group 1 had zero crickets left by one month, Group 2 had four and Group 3 had five crickets still alive. The results did not support my hypothesis because the group predicted to have the most crickets alive actually had all of them dead by the end of the trials. On the contrary, the results showed that the group of crickets that were fed in excess (Group 3) had the most crickets alive by the end of the trials. <b>Conclusions/Discussion</b> In conclusion, the results showed that a caloric restrictive diet doesn't always extend the life of an organism. By taking my experiment and applying it to our society one can speculate that by doing a restrictive caloric diet gradually can harm a person instead of helping them.	
<b>Summary Statement</b> This experiment focused on how a caloric restrictive diet can impact the lifespan of crickets.	
<b>Help Received</b> My chemistry teacher helped me further understand the concept of a caloric restrictive diet.	