



**CALIFORNIA STATE SCIENCE FAIR  
2012 PROJECT SUMMARY**

<b>Name(s)</b> <b>Daniel Besson</b>	<b>Project Number</b> <b>J1099</b>
<b>Project Title</b> <b>Bio Survival: Creating a Self Sustaining Ecological System in a Sealed Container</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of my project is to see whether two living things can survive in a sealed container, and if so for how long. I hypothesized that they could survive for at least a week.</p> <p><b>Methods/Materials</b> To test my hypothesis I created two bio domes. I put gravel, sand, and soil inside of a 5 gallon bottle. In the first I put two blue grape hyacinth plants, and two packs of wheat grass seeds. In the second I put a strawberry plant and 1 1/2 packs of wheat grass seeds. Then I put in the crickets, the first had 5, and the second had 12. I had also added some other items to the second, like a thermometer and a measuring stick to see if they had any effect on the animals. After I placed both of them in a well lit area and took down observations.</p> <p><b>Results</b> In my first bio dome all of the animals had died in the first six days, but the plants continued for at least a week after. The animals in the second bio dome stayed alive for the same time. I noticed that in the second dome they began to die in a four day period when the temperature had significantly raised. So my belief that the temperature would affect the animals was correct. As in the first, the plants continued to grow even after the animals.</p> <p><b>Conclusions/Discussion</b> After testing my hypothesis I can say that under these circumstances two living things can survive in a sealed container, but only for a maximum of six days. I do think, however, that they could have lived longer if I had found the correct balance between both the quantity of animals, plants and water.</p>	
<b>Summary Statement</b> Finding out if two living organisms can survive in a sealed container and for how long.	
<b>Help Received</b> My mother and father helped purchase the materials I needed for my project.	