



**CALIFORNIA STATE SCIENCE FAIR  
2008 PROJECT SUMMARY**

<b>Name(s)</b> <b>David M. Tanksley</b>	<b>Project Number</b> <b>J0924</b>
<b>Project Title</b> <b>Helping Our School's Biodegradable Plates Decompose Faster using Environmental Factors</b>	
<b>Objectives/Goals</b> My question was, "How can we help our school's biodegradable plates decompose faster using environmental assistance?" I chose my topic because my sister studied biodegradable materials before and I thought it was interesting. I also have a concern about the environment and helping my community "go green". In research I learned using a compost pile helps conserve energy and helps the environment by reducing pollution and landfill dumps. Compost piles work with decomposers (worms) in the environment to enrich soil which is good for agricultural purposes and gardening.	
<b>Abstract</b> <b>Methods/Materials</b> I obtained new, biodegradable plates from our school cafeteria. With permission from the school, I took dirt from the school grounds to put in my bags with the plates for the experiment. I used dirt from the school because if the school chooses to use a compost pile in the future, information from my experiment could help. I filled each bag with the same amount of dirt, a new plate and different variable. I had two test bags for each variable, and two for the control and labeled the bags. Each week I observed and weighed the plates and recorded the information.	
<b>Results</b> The control with just dirt worked the least. The tests with the torn plates were the second least. The test plates that were the third least to decompose were the test bags with the worms. The test bags with the organic material worked the third best. The next variable that was the second best in breaking down the plate was the water. The test plates in the bags with the combination of all of the other variables worked together to start decomposing the plates the best.	
<b>Conclusions/Discussion</b> All of the variables alone had some effect on the plate. The tests with the combination of variables decomposed the plate the most because the variables worked together. Worms can eat half their weight a day in ideal conditions and they were an important factor of the combination tests results. A longer experiment would better show decomposition of the plates. I hope that people that read about my project will want to use compost piles to help their environment.	
<b>Summary Statement</b> Helping our school's biodegradable plates decompose faster using environmental assistance.	
<b>Help Received</b> My mother helped me gather and organize my materials. She offered advice and helped me complete this application. My teacher helped with advice and editing.	