



**CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY**

Name(s) Erendiz Tarakci	Project Number J1220
Project Title Is There Plastic in Your Water?	
Abstract Objectives/Goals My project was to determine whether or not it is dangerous to leave plastic water bottles out in the sun since substances in the plastic are known to be found in breast cancer patients and they harm the organs. I believe that if you leave plastic water bottles known to harmful substances in the sun, then some of the harmful substances will leak into the water. Methods/Materials One glass water bottle, as a control, two BPA-free nalgene water bottles, three Arrowhead water bottles, and three Rubbermaid, code seven plastic, Tupperware containers were used in this experiment. All of the bottles and containers were left in the sun inside a car for ten days and all of their pH#s were tested before and after being placed in the car. Samples of water from all of the bottles and containers were weighed, placed in an oven to evaporate the water, and weighed a gin to see the weight difference and the visible residue. Algae was also placed in the water since BPA, a known carcinogen in plastic, kills algae. Results There was no major change in pH from any of the bottles or containers. However, there was residue the color of BPA in the tin pans the water was evaporated from. The Tupperware had the most of this residue, while it was almost indistinguishable in the tin pans from the other bottles. Conclusions/Discussion My conclusion is that there is a strong possibility that code 7 plastics with BPA will leak BPA into the water when they are heated.	
Summary Statement Does BPA leach into the water in a plastic container when the plastic container is heated?	
Help Received Mother helped use lab equipment; mother preformed tests while I was in school; I interviewed a Professor	