



**CALIFORNIA STATE SCIENCE FAIR  
2007 PROJECT SUMMARY**

<b>Name(s)</b> <b>Abbas R. Zaidi</b>	<b>Project Number</b> <b>J0923</b>
<b>Project Title</b> <b>Solving the Crisis on Hand: Ozone Depletion</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The goal of my project is to stop the depletion of the ozone layer. In this project, I am proposing my strategy to stop ozone depletion. <b>Methods/Materials</b> I created a method for my experiment to show how I intended to carry out my strategy to solve this major world crisis. First, I filled a bottle with 350 mL of warm water. Next, I lit a matchstick, blew it out, and immediately dropped it into the bottle before closing the lid shut. Finally, I squeezed the bottle a couple of times to create a miniature cloud that is a small-scale replica of polar stratospheric clouds (PSC) up high in the atmosphere. These clouds are one of the major causes of ozone depletion. In the second phase, I demonstrated the strategy I intended to use to fix ozone depletion. I dropped one gram of crushed dry ice into the bottle. After waiting until the dry ice completely sublimated, I measured the difference in water quantity since the beginning of the project. I gave an estimation of a change in the size of the cloud based on the difference in the amount of water in the bottle. I repeated the same process with the four other bottles, except I used different quantities of dry ice. <b>Results</b> In my results, the larger the quantity of dry ice I used, the smaller the size of the cloud was at the end of the experiment. These results show that my strategy was feasible. Dry ice could be used to disperse PSCs in the atmosphere, which form conditions through which chlorine and other ozone-depleting substances are formed. If these clouds were dispersed, these substances wouldn't form. This would in turn greatly decrease the amount of ozone depleted each year. <b>Conclusions/Discussion</b> My strategy to stem ozone depletion was proven feasible. The results of my project are evidence that my project could be used to stem the increase of ozone depletion each year. This experiment shows us a practical technique through which we could build a safer and healthier future.	
<b>Summary Statement</b> As applied on a small-scale replica, my strategy is to stem ozone depletion by dissipating polar stratospheric clouds in the atmosphere.	
<b>Help Received</b> Mrs. Shagufta Akhtar gave recommendations for improving my project. Mother helped decorate board.	