



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Rachel A. Smith</b>	<b>Project Number</b> <b>J1735</b>
<b>Project Title</b> <b>What Is Unseen in Your Ice Machine?</b>	
<b>Objectives/Goals</b> Abstract	
<b>Abstract</b> <p>In my project I am testing the amount of bacteria that can collect and grow on commercial ice machines. The four locations on the machine that I picked were the tube, the rim of the tube, the part that you push to get the ice and my control was the ice itself. I hypothesized that the tube would be the dirtiest because there the ice is constantly hitting it and it is moist all of the time.</p>	
<b>Methods/Materials</b> <p>In my project I controlled everything that I possibly could, such as the time of day I collected samples. Every sample was collected on a Tuesday night between 5:00 and 7:30. After that every sample was taken to the Pershing science lab, inoculated and streaked between 12:50 and 2:15 on a Wednesday afternoon. All samples were then placed in an incubator for two days until Friday afternoon when samples were counted between 12:55 and 2:30.</p>	
<b>Results</b> <p>In the end the piece that you push your cup up to had the most bacteria! The rim of the ice dispenser had an average of 4.2 bacteria spores, the ice had a 4.5, the tube had a 5.6, and the thing that you push had an average of approximately 7 spores! My highest number of spores on one plate was 35, which was on a tube from Jack in the box! Some numbers from the thing that you push your cup against were 20, 15, 13, and a few 0#s which gave it an accurate average.</p>	
<b>Conclusions/Discussion</b> <p>i have learned so much from this project and i am so proud of myself for making it thus far.</p>	
<b>Summary Statement</b> <p>In my project i collected samples fromvaroius locations of a commercial ice machine and calculated bacteria build up.</p>	
<b>Help Received</b> <p>my parents, peers, and my wonderful teacher Mrs. Marcarelli</p>	