



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> <b>Shelby D. Hawkins</b>	<b>Project Number</b> <b>S0807</b>
<b>Project Title</b> <b>Do Carpets Affect Air Quality?</b>	
<b>Objectives/Goals</b> To see how different floor coverings affect the amount of particulates in the air.	
<b>Abstract</b>	
<b>Methods/Materials</b> Materials: Digital dissecting microscope w/built in camera Computer Ionic Breeze Digital Camera Scotch Tape slides for microscope Handy Tally Counter  Methods: 1.) Run the Ionic Breeze Quadra in both the carpeted and non-carpeted classrooms for a total of 18 hours, varying student activity and no student activity. 2.) After running the machine for allotted time, remove the filtration plates from the Ionic Breeze analyze the particulates that collected by taking the scotch tape (3 cm long) placing on the filtration plate in 3 different locations (bottom, side, front) apply pressure to flatten out tape, peel of and stick on a clean microscope slide. 3.) For each slide count the number of particulates in the field of view using a hand tally counter. Randomly rotate the slide on the microscope 5 times, counting the number of particulates and record them. 4.) After randomly collecting 5 field of views average the 5 for each slide (side, bottom, and front). 5.) Clean the Ionic Breeze with a damp cloth and then place more tape on the Ionic Breeze filtration plates, repeating steps 3 and 4. 6.) Repeat the steps for the carpeted and non-carpeted, with students for 18 hours and without students for 18 hours.	
<b>Results</b> Overall the non-carpeted room had more particulates when compared to the carpeted room. However when students were in the carpeted room the amount of particulates increased by almost 50%. When the students were in the non-carpeted the amount of particulates increased less than 20%.	
<b>Summary Statement</b> Comparing the particulate levels in carpeted and non-carpeted classrooms with and without activity.	
<b>Help Received</b> none	