



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Shalini Kolluru	Project Number J0621
Project Title The Impact of Deep Breathing on Memory	
Abstract Objectives/Goals My objective was to learn about how deep breathing affects students' memory. Methods/Materials <ol style="list-style-type: none">1. My experimental sample consisted of 78 students from grades 5 and 6.2. As part of pre-test, students were given a list of non-sense syllables to memorize for ten minutes. Then the students were asked to recall as many of the non-sense syllables as they could and write them on a piece of paper.3. After a break, I trained 78 students in the process of deep breathing. After they were well versed with the process of deep breathing (using the correct posture), the experiment was implemented.4. The same set of students were asked to engage in deep breathing for 10 minutes.5. After the deep breathing, they were given a different list of non-sense syllables to memorize.6. Next, as part of the post-test, the students were asked to recall as many non-sense syllables as they could and write them on a piece of paper.7. The pre and the post-test responses were tabulated and analyzed to assess the impact of deep breathing on memory.8. Finally, the students were surveyed about how they felt after the breathing exercises. Results <ol style="list-style-type: none">1. The mean correct response in the memory test before deep breathing consisted 3.92. The mean correct response in the memory test after deep breathing consisted 6.33. The mean correct response for female students consisted of 3.8 in the pre-test and 7.4 in the post-test.4. The male students on the other hand had a mean of 2.6 in the pre-test and consisted 5.1 in the post-test. Conclusions/Discussion <ol style="list-style-type: none">1. I found that deep breathing has a positive impact on memory.2. Students stated that they felt more relaxed and could concentrate better which helped them remember the syllables better.	
Summary Statement My project is about how deep breathing impacts memory.	
Help Received Mother guided me through whole project ; Coach helped with paper work ; School teachers prvided class time and students for the experiment	