



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

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| <b>Name(s)</b><br><b>Jordan D. Bishop</b>  | <b>Project Number</b><br><b>J0302</b> |
| <b>Project Title</b><br><b>Autism + Music = Relaxation</b>   |                                       |
| <b>Abstract</b><br><b>Objectives/Goals</b><br>My objective is to find out what style of music has the most calming effect on a person with autism. My brother, who has autism, can get very wild and upset, and I want to know how to help him feel more calm.<br><b>Methods/Materials</b><br>Since my brother likes and responds to music, I explained my project and got his permission, then chose four styles of music for him to listen to. They were jazz, Rock & Roll, classical piano, and opera. I chose music he had never heard before so he wouldn't be used to them. I tested him at the same time each day. I played each piece 3 times over 3 days, for 5 minutes each. I made sure he sat in the same place, his surroundings were the same, that the music was played at the same volume,25, and that he was comfortable. (He had used the bathroom and wasn't hungry.)I charted his reactions by measuring how many times he vocalized, fidgeted, and got up, then I transfered the data on to line graphs, one for each type of music, showing each kind of reaction with a different colored line.<br><b>Results</b><br>My results show that opera had the most calming effect on him, causing him to lie down and almost fall asleep. During opera my brother stayed seated the full 5 minutes, quiet for a full 2 minutes and fidgeted mainly after 3 minutes had gone by.<br>Rock & roll caused almost the same amount of fidgeting as classical piano, however he was able to stay seated a full 3 minutes. Classical piano results showed the second highest vocal activity. During jazz, his fidgeting, vocalizing and inability to sit down occured more often than with any other style of music.<br><b>Conclusions/Discussion</b><br>Of the four styles of music I tested, opera had the most calming effect on a person with autism. It's possible that I got this result from opera because of the vocal music in it. I believe this is true because rock & roll which was the 2nd most calming, was the only other style of music I tested that had vocal parts. To do this project again, I would use more vocal music to test his reaction to voice. |                                       |
| <b>Summary Statement</b><br>My project is about finding out how music can calm a person with autism.   |                                       |
| <b>Help Received</b><br>My mother helped me by bringing my brother back to the couch when he got up to run around. My mother also took pictures from where she was standing so I wouldn't distract him.  |                                       |