



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Joshua C. Diebel	Project Number J1906
Project Title How Do Different Sounds of Music Affect Ant Behavior?	
Abstract Objectives/Goals To find out how ants behavior and productivity is affected by beats,decible levels, and frequency level. Methods/Materials First, I prepared my six ant hills. Then, I put the ninety Harverter ants in the refrigerator. After that, I chose five different songs with five different beats. Then I put the five ant hills in different rooms with different music, and the last one in a room with no musi. I used a metronome and a decimeter to measure the beat and deciable level. Everyday I drew on the ant hills to mark the progress. In the end, I ended up using five different color markers. At the end, I measured the length of the tunnels and chambers. After that, I made a chart comparing the decibel level to the tunnel length. Finally, I drew a conclusion based on the data that was gathered. Results Final reasults still pending Conclusions/Discussion From the data that has been collected thus far, it is concluded that it is not so much the beat or the tempo of the music that affected the ants as we thought, but it was the decibel level that affected them the most. The ants that were listening to the music with the higher decibel level dug more and were more unpredictable; while the ants listening to the music with the lower decibel level dug less.	
Summary Statement To find out how ants react to different sounds of music.	
Help Received Mr. Walls (music teacher) helped me with the sound equipment.	