



**CALIFORNIA STATE SCIENCE FAIR
2008 PROJECT SUMMARY**

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| Name(s) Mitzi H. Pierson | Project Number J1125 |
| Project Title Follow the Beat | |
| Abstract Objectives/Goals The objective of my experiment is to determine how much different types of music affect the heart rate of different age groups. Methods/Materials Informed consent was obtained from eighteen participants, ranging from age 5 to 60 years. I conducted the experiment by measuring the resting heart rate of my participant. Then he/she listened to music for three minutes. The heart rate was measured immediately after the music was stopped. After his/her heart rate returned to its original resting rate, I began to play the second song, followed by the third and fourth. This same procedure was conducted on all my participants. Results On average, punk rock affected the kindergartener's heart rate the most. For teenagers and adults jazz was the most effective music. Kindergarteners and teenagers were not affected by classical. The heart rate of the adults decreased after listening to classical music. Conclusions/Discussion I discovered that a subject was not affected by certain types of music if he/she did not enjoy it. For example, adults were much less affected by hip-hop than kindergarteners and teenagers were. During my experiment, I perceived one element that played a role in changing the heart rate: body mass. I discovered that the more body mass a person possessed, the more change in his/her heart rate. | |
| Summary Statement How music affects a person's heart rate. | |
| Help Received Mother helped me to narrow down on a topic. | |