



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Ananya Jeyappragash	Project Number 35716
Project Title The Effects of Music on Mood and Heartbeat	
Objectives/Goals The goal of this project is to find aspects of music that may alter a listener's mood and/or heartbeat. Methods/Materials Materials: Heartbeat monitor, Mood "wheel" (list of categorized words to help describe how a person is feeling), Questionnaire (to gauge a person's mood), Sonic Visualiser App (breaks down the song into separate components) Method: -Select four instrumental songs: Sufi music, synthesizer, jazz, and classical. -Measure the first person's mood (mood wheel) and heart beat (Heart rate App), and have him take the mood questionnaire. -Play the first song. -Repeat Step 2. -Wait at least 30 minutes between each song to regulate heartbeat and mood, and to make sure the previous song does not affect the results for the next song. -Repeat Steps 2-5 for each song. -Repeat Steps 2-6 for each person. -Find a pattern in the moods and heartbeats of the people for each song. -Analyze the songs to find a reason for the patterns. Results The Sufi music made most people feel positive (happy). One outlier became irritated at the song. The synthesizer song made everyone feel positive. The jazz song made some people feel negative (irritated). Others felt positive. The classical song made some people feel positive. Others felt negative. The two songs with higher tempos made people happy and excited. The two songs with lower tempos made most people happy and calm. This proves that music generally makes people happy. This experiment revealed that some songs changed people's heartbeat more. While doing this experiment, I also learned that too much repetition in a song can greatly change a person's mood negatively. Conclusions/Discussion -Songs with higher tempos usually make people happier. -Songs with lower tempos usually change a person's heartbeat more than songs with higher tempos.	
Summary Statement To find if potential changes in mood and/or heartbeat are caused by different aspects of music.	
Help Received	