

CALIFORNIA STATE SCIENCE FAIR 2011 PROJECT SUMMARY

Name(s) **Project Number** Kevin B. Krick J0711 **Project Title Kids vs. Adults: Frequency Perception Abstract Objectives/Goals** In my science fair project, I wanted to see whether or not kids could hear better than adults. Methods/Materials What I used to conduct this project was my laptop computer, and fifty people per group (kid/adult). I tested the kids and adults for this project by playing the frequencies 500 HZ, 1000 Hz, 5000 Hz, 10000 Hz, 15000 Hz, and 20000 Hz for each individual, while asking whether or not the subject heard what was played after each frequency. **Results** Kids and adults had equal ability to hear the frequencies up to 5,000 Hz. After that point, 100 percent of the children heard up to 10,000 Hz, 96 percent heard up to 15,000 Hz, until only 22 percent could hear 20,000 Hz. 92 percent of adults could hear up to 10,000 Hz, and 34 percent could hear 15,000 Hz, while 0 percent could hear 20,000 Hz. That means that at the 10,000 Hz mark kids performed 8 percent better than adults. At 15,000 Hz, kids performed 62 percent better, and at 20,000 Hz kids performed 22 percent better. **Conclusions/Discussion** I concluded from the results that kids could hear better than adults. Kids performed better than the adults from 10000 Hz to 20000 HZ, which is a majority of the frequencies i played. **Summary Statement** In my project, I tested if kids could hear better than adults or vice versa. Help Received