



**CALIFORNIA STATE SCIENCE FAIR  
2002 PROJECT SUMMARY**

<b>Name(s)</b> Megan E. Hamilton	<b>Project Number</b> <b>S1003</b>
<b>Project Title</b> <b>Listen to This!</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The objective was to determine whether or not teenagers experience a temporary hearing loss after being exposed to loud music. <b>Methods/Materials</b> I picked a song and tested it for its decibel level using a sound meter. Then, prior to listening to the music, I tested the subjects' hearing using tuning forks of 256Hz, 512Hz and 1024Hz. After the subjects listened to the music, I tested their hearing again with the same tuning forks. The independent variable was the 20 subjects and their ages; the dependent variable was the reaction to the tuning forks after listening to the music. <b>Results</b> After listening to the music, 60% of the subjects tested were unable to hear the tuning fork with the highest frequency (1024Hz). The remaining 40% of the tested subjects were able to hear all of the tuning fork sounds after listening to the music. <b>Conclusions/Discussion</b> Loud music can cause a temporary hearing loss in many teenagers.	
<b>Summary Statement</b> I tested the hearing of teenagers after listening to loud music and found that many suffered a temporary hearing loss.	
<b>Help Received</b> My mother helped me prepare the display.	