



**CALIFORNIA STATE SCIENCE FAIR  
2017 PROJECT SUMMARY**

<b>Name(s)</b> <b>Heather L. Halog</b>	<b>Project Number</b> <b>J1307</b>
<b>Project Title</b> <b>Can You Hear Me Now?</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of this study is to determine whether people can localize sound better with one ear or two.</p> <p><b>Methods/Materials</b> Each test subject was placed in the center of a room while blindfolded. I would make a sound within the room and I would time and log how long it took the test subject to locate the sound. This test was done with the right ear plugged, then the left ear plugged and finally with the use of both ears. This process was repeated on 50 test subjects. Materials used were blindfold, a timer, duct tape to mark measured spaces in the room 3 1/2 yards apart from the center of a marked circle, measuring tape and ear plugs. I conducted this test on 50 different people.</p> <p><b>Results</b> After repeated tests, the results of this study showed that people can localize sound better with the use of both ears as opposed to one ear.</p> <p><b>Conclusions/Discussion</b> Repeated trials with multiple subjects revealed that people can localize sound better with both ears as opposed to one ear. It was further revealed, when plugging one ear, that people could localize sound better with the right ear open as opposed to the left ear being open. It is concluded that the use of both ears is more effective in sound localization than it is with only one ear.</p>	
<b>Summary Statement</b> As measured by the time it took people to localize sound with one ear versus two ears, I found that people hear better with the use of both ears as opposed to only one ear.	
<b>Help Received</b> I came up with the test I conducted with the help of my science teacher, Mr. Scott and through research online. My test subjects were friends and classmates at school. Most of my research on hearing was done on the internet .	