



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

<p>Your Name (List all student names if multiple authors.) Allen Tyler</p>	<p>Science Fair Use Only</p>
<p>Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) The effect of music on a hamster's performance running through a maze.</p>	<p style="font-size: 2em;">J0230</p>
<p>Preferred Category (See page 5 for descriptions.) 18 - Zoology</p>	<p>Division <u>J</u> Junior (6-8) <u>J</u> Senior (9-12)</p>
<p>Abstract (Include Objective, Methods, Results, Conclusion. See samples on page 14.) Use no attachments. Only text inside these boxes will be used for category assignment or given to your judges.</p> <p>Objective: My project was designed to test whether different classes of music would induce a hamster to run faster through a maze. I have reviewed many studies on the Mozart effect. The Mozart effect is the theory that Mozart's music can raise IQ scores, cut learning time, improve creativity, heal the body faster, etc. I then considered the fact that some people think that rock or country music would be better for them and decided to run a hamster through a maze with different types of music to see what effect each type of music has.</p> <p>Method: First I trained the hamster (Sparky) to go through the maze by putting a sunflower at each corner of the maze. I took away one seed each day until only one was left. Next, I ran Sparky through the maze with music. I played music for fifteen minutes before I ran him through the maze, then continued to play it until he had finished the maze. I chose songs that I felt would best represent that type of music. Because of Sparky's nocturnal habits I played the music from around 6-7:00 PM, so that he would be alert at the performing time. I only performed the trial once each day so that Sparky would have almost the same alertness every day. I exposed him to the music for several days, so that he would have more time to become effected by the music. I also exposed him to each type of music one at a time. I would not expose him to a new type of music until finished exposing him to the first type. This way the effect of each type of music would not be interfered by the other type of music. When I completed the project, I questioned whether my results were just a result of Sparky getting better at the maze with time. I thought this because Mozart's music had the greatest effect and was the last music Sparky listened to. To determine classical music truly was the fastest, I repeated the whole experiment over again, with the music in a different order. Classical first, then rock, then country, then a control. After repeating the experiment, I found the same results.</p> <p>Results: Sparky ran through the maze the fastest while listening to Mozart. It is interesting to note that Sparky got better each trial he ran while listening to Mozart, yet he got slower each time he ran through the maze with rock music. Country music had almost the same effect as the control.</p>	
<p>Summary Statement (In one sentence, state what your project is about.) My project is designed to test whether different classes of music would induce a hamster to run more quickly through a maze.</p>	
<p>Help Received in Doing Project (e.g. Mother helped type report; Neighbor helped wire board; Used lab equipment at university X under the supervision of Dr. Y; Participant in NSF Young Scholars Program) See Display Regulation #8 on page 4. Mother reminded me to run hamster through maze. Father helped build maze. Mrs. Miranda gave advice.</p>	