



California Science Center
CALIFORNIA STATE SCIENCE FAIR
2001 PROJECT SUMMARY

Your Name (List all student names if multiple authors.) Ryan J Mazelli	Science Fair Use Only <h1 style="margin: 0;">J0121</h1>
Project Title (Limit: 120 characters. Those beyond 120 will be ignored. See pg. 9) Skateboard Bearings	Division <u>X</u> Junior (6-8) _ Senior (9-12)
Preferred Category (See page 5 for descriptions.) 1 - Applied Mechanics/ Structures & Mechanisms/ Manufacturing	
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>This experiment is about the different performances between different brand name bearings. This is important to human kind because bearings are a big factor in allowing the skateboard to move fast and smooth. The faster the skateboard can go the higher the skateboarder goes when doing a trick. I stated my hypothesis saying that the most expensive bearing, Jacked, would result in performing the best out of the five bearings. I also said that the least expensive bearing, Blank, would result in performing the worst out of all the five bearings.</p> <p>This experiment was tested by the following procedures:</p> <ol style="list-style-type: none"> 1. Take a piece of tape and put a strip 12 inches long down the middle of the pre-built ramp. The piece of tape should be 18 inches down from the top. 2. Set the ramp down in the middle of a flat street. 3. Take the skateboard and put it at the top of the finished ramp. Put the wheel on the masking tape and hold it there. 4. Then release the skateboard. 5. After the skateboard has stopped rolling, take a measuring tape and measure from the end of the ramp to the back of the wheel. 6. Release the skate board four more times. 7. Then change the bearing and repeat the letting go process. <p>The key result in my experimentation was that the brand name Jacked bearings had the best performance. The average distance that the skateboard traveled with Jacked bearings was 17 feet 5 inches. The worst set of brand named bearings that I tested was Blank bearings. The average distance the skateboard traveled with Blank bearing was 13 feet.</p> <p>In conclusion, the difference in performance depends on the smoothness of the ball bearings inside the bearing. Another affect on performance comes from the accuracy of how the bearings are made. The overall performance of the better bearing is determined by the quality of the machinery that it goes through to detect any cracks, bumps and/or flaws.</p>	
Summary Statement (In one sentence, state what your project is about.) My project consists of testing different brands of skateboard bearings to determine if there is a difference in performance.	
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. My grandfather helped me build the testing ramp.	