



**CALIFORNIA STATE SCIENCE FAIR  
2006 PROJECT SUMMARY**

<b>Name(s)</b> <b>Alexandra L. Giacoletti</b>	<b>Project Number</b> <b>J1015</b>
<b>Project Title</b> <b>The Sense of Touch</b>	
<b>Objectives/Goals</b> Does a person's age affect his/her sensitivity to touch? If a person is younger, I believe he/she will be more sensitive to touch.	
<b>Abstract</b> <b>Methods/Materials</b> 1. Use a ruler & compass to draw 3 circles on cardboard, one inside the other. The circles should be 1.5 cm apart. 2. Cut out the 3 "testers" and color the 3 zones. 3. Stick some straight pins in one of the 3 zones (outer, middle, or central) on each of the testers. 4. Blindfold a person with a cloth. 5. Press the pin heads of the tester with the pins in the central zone, gently against the forearm. How many pins can the person feel? Record the answer. Try again with the pins stuck in the middle and outer zones. Also test the palm and fingers with each of the 3 testers. 6. Repeat the test on people of all different ages. 7. Record everyone's answers using a chart showing the 3 zones and the 3 parts of the arm that were tested (forearm, palm, & fingers). 8. Using the information from the chart, find out which of the 3 age groups had the highest percentage of correct answers.	
<b>Results</b> My results showed that participants ranging in age from 6-15 guessed the correct number of pins 60% of the time. Participants ranging in age from 31-44 years old were accurate 61% of the time. The last group which ranged in age from 52-72 years old were only right 38% of the time.	
<b>Conclusions/Discussion</b> I found that my hypothesis was almost totally correct. The younger groups were able to correctly sense the number of pin heads better than the oldest group. The part that I did not expect was that the middle group (31-44 years old) was actually a little better at sensing the number of pin heads. They "out-sensed" the younger group by 1%. I was also able to conclude from my data which part of the arm was most sensitive and which grouping of pins was easier to detect. The fingers were the most sensitive part of the arm. The outer zone, where the pins were furthest apart, was the easiest to feel. My findings can help others learn more about one of our most important senses, the sense of touch.	
<b>Summary Statement</b> A person's age affects his/her sensitivity to touch.	
<b>Help Received</b> Mark Giacoletti helped type my report, and both Mark and Heidi Giacoletti helped me compile my statistics.	