



# CALIFORNIA STATE SCIENCE FAIR 2017 PROJECT SUMMARY

<b>Name(s)</b> <b>Liana Hernandez</b>	<b>Project Number</b> <b>J2007</b>
<b>Project Title</b> <b>The Skinny on Moisturizers</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of this experiment was to determine which moisturizer performs the best in keeping skin moist.</p> <p><b>Methods/Materials</b> I tested 5 different moisturizers three times each in order to obtain accurate data for my experiment. Using a Jell-O skin mold contained in a petri dish, I equally distributed each different moisturizer on top of the Jell-O mold. I also left 3 petri dishes with just Jell-O only to use as my controls. I made sure to label each dish so that it is easily identifiable when collecting my data. Each petri dish contained the same amount of Jell-O and the same amount of moisturizer. I then measured and weighed all eighteen petri dishes every day for two weeks. I did this so that I would be able to track their loss of water over the two week period. When the two weeks were complete, I collected all my data so that I could calculate the amount of water retained in each petri dish.</p> <p><b>Results</b> Based on my results, you can clearly conclude that Vaseline and Aquafor Healing Ointment both lost the least amount of weight during the experiment. Aveeno Hand Repair Cream came in third with 80% of its weight being retained. For height loss, both Aveeno Hand Repair Cream and Aquafor Healing Ointment lost the least amount of height. Vaseline came in third with 73% of height retained. I hypothesized that Aveeno Hand Repair Cream would be the moisturizer that would perform the best. According to my results, that hypothesis is incorrect.</p> <p><b>Conclusions/Discussion</b> Even though my hypothesis was incorrect, I can conclude that people would more likely want to use the Aveeno Hand Repair Cream over Vaseline and Aquafor Healing Ointment. Based upon my interview with Dr. Hsu, Assistant Chief of Dermatology at Kaiser Medical Center, he states that people would not necessarily pick Vaseline and Aquafor Healing Ointment for everyday use due to the consistency and texture that it would create on the skin. He further states that the Aveeno Hand Repair Cream would be the most comfortable on human skin for everyday use. It would also be the top recommended choice due to the fact that patients prefer a cream over a thick, greasy, jelly-like substance. In conclusion, even though Vaseline and Aquafor Healing Ointment performed the best, the Aveeno Hand Repair Cream would be the most practical choice for consumers looking for a good moisturizer.</p>	
<b>Summary Statement</b> I was able to determine how well different ingredients in skin products work at keeping the skin moist by using a jello mold to model human skin.	
<b>Help Received</b> Dr. Phillip Hsu, Assistant Chief of Dermatology, Kaiser Permanente Fontana, CA allowed me to interview him on the different types of moisturizers on the market, and how their ingredients determine their effectiveness in keeping skin moist.	