



CALIFORNIA SCIENCE & ENGINEERING FAIR 2019 PROJECT SUMMARY

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Project Title Hands Down: The Best Moisturizer	
<p style="text-align: center;">Abstract</p> <p>Objectives We apply lotions and moisturizers on a daily basis, but do we know which moisturizers work the best and why? The objective of my experiment is to determine which of the three common moisturizers, Aveeno, Eucerin, or Vaseline, would hydrate your skin the longest. My hypothesis is that Eucerin will work the best because it contains mineral oil, which helps prevent evaporation of moisture from your skin.</p> <p>Methods Four petri dishes of gelatin, which acts as a skin model were prepared. The first dish, which was the control dish, did not contain any lotion. Each of the other three dishes contained a different moisturizer that was applied on top of the gelatin. Each day the dishes were observed for textural changes and weighted to see how much water and moisture have evaporated. This was done for six days and the trial was repeated two more times. The amount of water loss was recorded and the percentage of water evaporation was calculated.</p> <p>Results Eucerin outperformed the other two moisturizers. On average, Eucerin only lost about 10% of its body weight. Aveeno lost about 16%, Vaseline lost about 34%, and the control lost about 66% of its body weight. This moisture lost represents how well each product was able to block the moisture in one's skin from evaporating.</p> <p>Conclusions This experiment indicates that if one were to apply either Eucerin, Aveeno, or Vaseline, as a moisturizer, Eucerin would most likely hydrate one's skin longest. Mineral oil, the main ingredient in Eucerin, acts as a tough protective barrier that prevents the moisture in your skin from evaporating. A consumer looking to purchase a long lasting moisturizer may consider buying Eucerin or any products that contain mineral oil as its main ingredient.</p>	
Summary Statement Of the three moisturizes that were tested, Aveeno, Eucerin, and Vaseline, Eucerin was best at keeping skin hydrated.	
Help Received My parents provided all the necessary supplies. I conducted the experiment in my kitchen.	