



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

Name(s) Emily K. Cummings	Project Number J0706
Project Title The Placebo Effect	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project investigated whether changing the color of the same drink affected which drink people rated as the sweetest; I wanted to learn whether I could use people's own minds to trick them into thinking the drinks were different.</p> <p>Methods/Materials I used clear Gatorade and food dye, and I divided the Gatorade into four sections. I dyed each of three sections a different color, then gave those three drinks to my test subjects, asking them to rate which one was the sweetest. For the fourth section, my control, I gave each of them three cups of the same Gatorade that had not been dyed, and asked them to rate which one was the sweetest.</p> <p>Results Out of the colors, blue, green, and red, I discovered that red is most commonly rated as the sweetest. I believe that red was rated as the sweetest because it is associated with sweet fruits such as watermelons, raspberries, strawberries, and cherries.</p> <p>Conclusions/Discussion My hypothesis was correct. Based off of my standard deviation, my tests were very accurate. There is much debate over whether the placebo effect is real or not, and my tests indicate that it is. Given that the placebo effect is primarily used in medicine, my research is very helpful because it provides evidence that the placebo effect works.</p>	
Summary Statement My project tests whether the placebo effect can make people think that drinks that are the same taste differently.	
Help Received Friend helped with experiment itself, science teacher advised on much of the writing.	