



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

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| Name(s) Jacob S. Deyell | Project Number J1304 |
| Project Title Can People Taste the Difference between Fat-Free and Regular Foods? | |
| Abstract Objectives/Goals Many people avoid the fat-free variations of their favorite foods, mainly due to their perception of taste differences in fat-free versus regular foods. However, do the foods really taste that different? That is what I chose to investigate. I am interested in discovering if people are able to taste the different between fat-free and regular foods. Methods/Materials To determine if individuals could taste the difference between fat-free and regular foods, I gathered fat-free and regular versions of Fig Newtons, cheese, and popcorn; having six separate containers of food. I tested 44 subjects who do not have allergies to the above mentioned foods. The sample was comprised of adults and minors. Each subject received a sample of the fat-free and regular version of each food item. Each subject was then asked to determine which of the food items were fat-free, and which were regular. Results were then tabulated. Results The results of this experiment were tabulated in percentage form. For those individuals under the age of 18, 23% were able to correctly distinguish between the cheeses. Forty-five percent were able to correctly distinguish between the Fig Newtons. Sixty-eight percent were able to correctly distinguish between the popcorn. The results of this experiment for those individuals over the age of 18 are as follows. Forty-one percent of the subjects were able to correctly distinguish between the cheeses. Thirty-two percent were able to correctly distinguish between the Fig Newtons. Seventy-seven percent were able to correctly distinguish between the popcorn. Conclusions/Discussion The results determined that overall people are not able to taste the difference between fat-free and regular foods. However, I was also able to conclude that those over 18 years of age had a greater ability to distinguish between the fat-free and regular versions of the foods. Therefore, the efforts that the food manufacturers are putting forth to make their fat-free foods as good as the regular foods, seems to be working. | |
| Summary Statement My project tests if individuals are able to taste the difference between fat-free and regular foods. | |
| Help Received None | |