



**CALIFORNIA STATE SCIENCE FAIR
2010 PROJECT SUMMARY**

Name(s) Avantika Vivek	Project Number J0423
Project Title Expan-Doh!	
Abstract Objectives/Goals My objective was to see if the amount of yeast used had an effect on the rise height of bread dough. I believed that using 2x the Amount of Yeast in the Recipe would cause the bread dough to deflate or explode, and using the Full Amount of Yeast in the Recipe would result in perfect bread dough. Using 1/2 the Amount of Yeast in the Recipe would probably not cause the dough to rise much, and using No Yeast would not cause the dough to rise at all. Methods/Materials 20 loaves of bread dough were made, then put into separate containers and stored in a cool and dark place. The recipe used was Julia Child's White Bread Recipe. The only difference in the dough was the amount of yeast added. There were 4 different amounts of yeast and 5 trials per amount of yeast. The amounts were: No Yeast, 1/2 the Amount of Yeast in the Recipe, Full Amount of Yeast in the Recipe, and 2x the Amount of Yeast in the Recipe. Results I found that the 2x Amount of Yeast trials did rise the highest, but when baked, tasted sour and horrible, due to the higher yeast concentration. The Full Amount of Yeast trials rose to a medium height and tasted perfect. The 1/2 Amount of Yeast trials rose to a small height and tasted bland. The No Yeast trials did not rise at all, and tasted bland as well. Conclusions/Discussion I found that yeast is essential to bread rising, and that the amount of yeast determines part of the flavor as well as the rise height. More yeast leads to higher rise height, but sour-tasting bread, while less yeast leads to small rise height and bland-tasting bread. Therefore, the full amount required by the recipe is the best since it leads to good rise height as well as great-tasting bread.	
Summary Statement My project was about whether the amount of yeast used in a bread recipe affected the rise height of bread dough.	
Help Received Mother helped with the bread dough baking; Father helped with backboard and photography.	