



**CALIFORNIA SCIENCE & ENGINEERING FAIR  
2018 PROJECT SUMMARY**

<b>Name(s)</b> Alannah I.M. Sanchez	<b>Project Number</b>  38026
<b>Project Title</b> Got Gluten? Testing the Gluten Levels in Different Types of Flour	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The purpose of this project is to investigate the claim that Flours don't have labels that say how much gluten is in the flour. Therefore, the experiment was to test how much gluten was in these flours.</p> <p><b>Methods/Materials</b> I made a dough using the same amount of flour and water. I then took the dough and put it in a strainer and rinsed away the gluten for 2 minutes. The gluten is left behind because it is the most stable.</p> <p>Important materials: All purpose, bread , german and wheat flours. A strainer and A sink.</p> <p><b>Results</b> According to data collected, the control which was All purpose flour averaged 1.8 oz. The independent variable which was wheat flour averaged 1.8 oz. The data collected shows that independent variable Bread flour had an average of 2.8 oz. In comparison, the fourth independent variable which was German Flour averaged 1 oz. Overall, the variable that mostly proved the experiment wrong, was Bread flour because this Flour had 2.8 oz of gluten and my hypothesis stated that All purpose Flour would have the most amount of gluten.</p> <p><b>Conclusions/Discussion</b> The results prove that bread flour has the most amount of gluten because on my trials bread flour had high amounts of gluten in ounces. This result occurred because in bread you need gluten to make the bread stable and not cake like so this is why bread flour contains a lot of gluten. Using the control to isolate the results and compare the variables one at a time showed that there was not a significant difference in the data because most of the flours are similar to each other.</p>	
<b>Summary Statement</b> My project tested gluten level in different types of flour.	
<b>Help Received</b> My mom, Deb for purchasing the necessary tools for my project. Dr. Cathy Cira taught me about gluten sensitivity, Celiac disease and German Flour.	