



**CALIFORNIA STATE SCIENCE FAIR  
2004 PROJECT SUMMARY**

<b>Name(s)</b> <b>Ryan L. Folli</b>	<b>Project Number</b> <b>J1114</b>
<b>Project Title</b> <b>Indigestion: Choosing an Antacid Based on Strength</b>	
<b>Objectives/Goals</b> Which antacid formulation neutralizes stomach acid most effectively?	
<b>Abstract</b>	
<b>Methods/Materials</b>	
<b>Materials</b> a. antacid formulations: 15 Tums Tablets, 15 Alka Seltzer Tablets, 1 bottle of Mylanta liquid. b. 1 roll of pH paper c. 200 ml of Hydrochloric acid d. 1000 ml of water e. 3 droppers f. 3 flasks g. 3 test tubes h. 1 pair of safety goggles.	
<b>Methods</b> a. Place normal recommended dose of each antacid in flasks and dissolve in 50 ml of water b. Measure pH of each solution c. Add increments of 1 ml of hydrochloric acid to solutions until pH reaches 5.0 d. Add up all amounts of acid added e. repeat 3 times for each antacid f. compare data	
<b>Results</b> From my experiment I found that Alka Seltzer was the most effective antacid and was able to neutralize the most acid (7.5 ml per dose), Mylanta neutralized the second most (5 ml) and Tums the least (2.5 ml).	
<b>Conclusions/Discussion</b> My conclusion, based on my data, is that the antacid that works best is Alka Seltzer. Alka Seltzer contains a bicarbonate of soda, a known base, which none of the other formulas had. This may have been a key factor in its effectiveness.	
<b>Summary Statement</b> I investigated which antacid product would neutralize the most acid, therefore proving to be the most effective.	
<b>Help Received</b> Mom helped buy materials, Dad helped with the preliminary research, and supervised my use of acid when conducting my experiment.	