



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Sanjay Siddhanti	Project Number J1834
Project Title Brand Name or Generic? Which Antacids Are Better at Neutralizing Acid?	
Abstract Objectives/Goals The objective of the experiment is to find which antacid, Maalox, generic Maalox, Mylanta, or generic Mylanta works better at neutralizing acid. Methods/Materials Materials: The materials included 50 ml and 15 ml tubes, disposable pipettes and droppers, vinegar, antacids (Mylanta and generic Mylanta, Maalox and generic Maalox), pH paper and acid base indicator (red cabbage extract). Experimental variable: Vinegar and different antacids Dependent variable: Amount of brand name or generic antacids required to neutralize vinegar. Methods: 1) Dispense 5 ml of vinegar in separate tubes. 2) Measure the pH of the vinegar using the pH paper strip and the indicator solution. 3) Add one ml of indicator solution to each of the tubes containing vinegar. 4) Add the liquid antacid drop wise to the tube containing vinegar plus indicator solution and observe the change in color of the pH indicator and pH paper. 5) Measure the amount of antacid required to neutralize vinegar. 6) Repeat steps 4 and 5 using the different antacid solutions. Results 1) A greater volume of the generic antacid was required to neutralize vinegar than the respective brand name antacid. 2) Approximately 8 ml of Maalox, 25 ml of generic Maalox, 5 ml of Mylanta and 20 ml of generic Mylanta was required to change the pH of 5 ml of vinegar to 7.0. 3) All antacids changed the pH of vinegar to 7.0 as measured by the pH strip. 4) The pH change was also observed with color indicator solution. The color changed from pink to blue when vinegar was neutralized with an antacid solution. Conclusions/Discussion In this experiment I observed that brand or generic version of antacid were not equal in their ability to neutralize vinegar. A greater volume of the generic antacids was required to neutralize the same amount of vinegar than their respective brand name antacids. This was an experiment done in test tubes; however, I believe that the results could be applicable when people take antacids for relief of heartburn. I also recommend that people should read the label when choosing to use brand or generic antacid.	
Summary Statement My project was designed to evaluate which antacid, Maalox, generic Maalox, Mylanta, or generic Mylanta works better at neutralizing acid.	
Help Received I would like to thank my family for their support.	