



**CALIFORNIA STATE SCIENCE FAIR
2003 PROJECT SUMMARY**

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Project Title Stuck On You	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The purpose of our experiment was to see which chemical substance would most efficiently and effectively remove chewing gum from cement. Our prediction was that lemon juice would work because its acidity level is high.</p> <p>Methods/Materials First, we gathered all of our materials and brushed our teeth. We chewed a piece of gum one hundred twenty-five times, and then placed it onto the cement inside the labeled circle. Both of us waited thirty minutes after chewing each piece of gum. While we were waiting the thirty minutes, scientist 1 crushed the gum pieces into the cement. Once all eighteen pieces of gum were chewed, we let them sit for twenty-four hours. The next afternoon, we measured out 1/4 cup of each chemical onto the labeled gum. We let all of the substances sit for twenty-four hours. The next day, we collected our razor blade and hammer, and started the removal process. Scientist 2 held the razor blade just under the bottom edge of the gum while scientist 1 stood six inches from the razor. Scientist 1 used the hammer to hit the razor with an equal amount of pressure for each hit. We counted the hits and recorded them. Once all the gum pieces were removed, we studied the left over blotches and rated the efficiency. After that, we had an adult rate the blotches and we had the same results.</p> <p>Results As it turned out, lemon juice was the best working substance. It removed the chewing gum the most efficiently and effectively. Vegetable oil was next. It only left a few blotches of gum. After vegetable oil, was alcohol and hair spray. They left a few more blotches than vegetable oil. The worst working substances were peanut butter and mayonnaise. They worked horribly.</p> <p>Conclusions/Discussion Our background research stated that lemon juice had an extremely high acidity level. This information was consistent with our findings. Lemon juice did work the best because of its acidity level. It came off very efficiently and effectively. So, in conclusion, if you ever need to remove gum from the cement, we would suggest using lemon juice.</p>	
Summary Statement Our project involved finding out which chemical substance would remove gum from cement the best.	
Help Received Scientist 1 mother helped supervise removal process and rated efficiency, friend helped edit report.	