



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

Name(s) Gregory E. Eiseman	Project Number 38443
Project Title Removing Bacteria with Gum	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals The objective of this study was to see if chewing gum removed bacteria just as well as teeth cleaners did.</p> <p>Methods/Materials A doctor, Up & Up 1.5L mouthwash, Filtered water, 2x10 ct. Orbit kosher gum w/ xylitol, 30 ct. Bazooka sugar gum, 4 oz. dixie cups, Cotton swabs, Latex gloves, 28 Petri dishes with nutrient agar, Sharpie, Timer, Incubator, Thermometer</p> <p>Results The results from this project showed that mouthwash is the best at removing bacteria from the items tested with a decrease of 56.9%, followed by the sugar-free gum with xylitol with a 37.74% percent decrease, and finally water with a 4.6% decrease. Sugar gum actually increased the amount of bacteria by 21.46%.</p> <p>Conclusions/Discussion From the results of this project, you can apply it to different areas of study. The first area would be dentists. They would use it by suggesting to their patients to increase their chewing of sugar-free gum. The second area that would use this information would be the head or owners of sugar-free gum companies. By including on the chewing gum packets that this gum helps clean teeth, it would appeal to the public resulting in an increase in the company's value.</p>	
Summary Statement My project is about using chewing gums to remove bacteria from subjects mouths.	
Help Received Since a kid like me is not allowed to take bacteria samples from subjects mouths, my dad helped me, since he is a doctor.	