



## Colorado Science and Engineering Fair

## 2024 Individual Project Abstract Form

**Please print 2 copies of the completed form. Sign both copies, keep 1 for your notebook and submit 1 copy to your Regional Fair Director with your other paperwork.**

Title of Project: Washing Away Acne

Finalist's Name: Emma Coonts

School and City: Limon Public School, Limon Colorado

Sponsor's Name: Becky Thompson

Category: Micro & Molecular Biology (MCRO)

Division: Senior (9th - 12th grades)

Abstract (250 words or less):

Even though there are medications that can help with acne, why not find a healthier, less expensive, and less risky option? Acne is a problem that many teenagers face. Today, there are numerous medications that can help cure acne; however, many have harmful side effects. The purpose of this project is to determine if water has an effect on bacteria that causes acne.

Based on research, two types of bacteria that are found to cause acne were chosen. Each bacteria was swabbed on plates. Four different types of water were chosen, and four disks of each type of water was placed on each plate. After two days, the zone of inhibition was measured to determine if the water was increasing or decreasing the growth of the bacteria.

Based on the results of this experiment, water alone cannot stop the growth of bacteria, but bacteria grows more in some types of waters than others. Tap and distilled water had the largest zone of inhibition. Well and sparkling water had the smallest zone of inhibition. The growth of bacteria was not more concentrated around any of the disks of water than in the control.

The results from this project showed that water type does have an effect on the growth of bacteria, but choosing the best type of water does not solve the growth completely. Water alone should not be used to clear acne, but tap and distilled water should be chosen over sparkling or well water.

*I hereby certify that the above statements are correct and the information provided in the Abstract is the result of one year's research. I also attest that the above properly reflects my own work.*

Finalist's Signature: *Emma Coonts*

Date: *2/28/24*

In addition, all students must complete the ISEF Student Checklist (1A), Research Plan, Approval Form (1B), and Checklist for Adult Sponsor (1), and any other ISEF forms required for this type of project. See the International Rules and Guidelines for form requirements. Return COPIES of all of these forms to your Regional Fair Director with you Finalist Verification/Permission Form. A signed copy of this form must be included in your notebook.