



Colorado Science and Engineering Fair

2025 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: How Can Probiotics Influence The Growth Of Bacteria

Finalist's Name: Adyson Young

School and City: Bayfield Middle School, Bayfield Colorado

Sponsor's Name: Kris McSweeney

Category: Biomedical & Health Sciences

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

For this project, I am finding a way to make antibiotics better for you. With my research, my question is: How can probiotics influence the growth of bacteria? My experiment is to find a probiotic's influence on the growth of both good and bad bacteria. I hypothesize that the probiotic will only help the good bacteria grow, and the bad bacteria will either not grow at all with the probiotics on it, or it will grow but not more than the bad bacteria alone. My experiment will consist of 5 petri dishes; each dish will have the same amount of good and bad bacteria but different amounts of probiotics. My hypothesis was half correct. I hypothesized that a probiotic would only help the good bacteria grow, and the bad bacteria would either not grow at all with the probiotics on it, or it would grow but not more than the bad bacteria alone. The reason I feel that it was only answered halfway is because at the end of my experiment, I saw that both sides of the plates 2, 3, and 4, were growing tremendously on both good and bad sides. On the other hand, plate 1 had grown a bit but not nearly as much as plates 2, 3, and 4 did. I have come to conclude that the probiotics on plates 2, 3, and 4 influence a lot of the bacterial growth, and I think that the probiotics grew themselves.

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:

Date:

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.**