



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: Is there a medication bottle that senior citizens can open and children can not?

Finalist's Name: Samantha Goetz

School and City: St. Peter's catholic school, Monument CO

Sponsor's Name: Charles Goetz

Category: Behavioral & Social Sciences (BEHA)

Division: Junior (6th - 8th grades)

Abstract (250 words or less):

The purpose of this experiment was to find the ideal medication bottle for multigenerational families. I did this by testing how quick and easy it is for senior citizens to open medication bottles. I used these same bottles to test children to see if they could open them, as well. My hypothesis stated If medication bottles have child resistant caps then the elderly will not be able to open the bottles. My hypothesis was wrong because every participant was able to open all of the bottles given to them. My results showed that the align arrows medication bottle (square) was the most effective and safest bottle. The align arrows medication bottle (square) was opened by every participant this year in a matter of seconds, however last year none of the children I studied was able to open this bottle. This bottle is the safest and most ideal medication bottle for multigenerational families. Even though the align arrows medication bottle (square) is the most ideal there are others that will work too. The Squeeze and turn (triangle) and the tab turn (heart) both had very similar results. All of the senior citizens tested opened these containers. but some children were also able to open them, making them safer than other bottles but definitely not the most ideal medication bottle for multigenerational families.

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:

Samantha Goetz

Date:

3-3-24

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 o 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.