



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: Radioactive Shields

Finalist's Name: Julian Cizek

School and City: Vail Mountain School, Vail

Sponsor's Name: Brett Falk

Category: Physics & Astronomy (PHYS)

Division: Junior (6th - 8th grades)

Abstract (250 words or less):

The purpose of my experiment was to determine what shields are the most effective at shielding radiation. I assumed that lead would perform the best at blocking radiation, as it is what is commercially used to shield from radioactive materials, which was shown untrue, as water did better. To perform this experiment I set up a radioactive source of strontium 90 on one side of the shielding, and a geiger counter on the other, and this produced results showing that water had less particles transmitting through it than lead, air, or dirt.

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.