



# Colorado Science and Engineering Fair

## 2025 Team 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: Do You Want To Build A Water Filter

Team Leader's Name: Ainsley Lehman

Team Member 1: Braelyn Matson

Team Member 2: Jocelyn Demster

School and City: Firestone Charter Academy, Firestone

Sponsor's Name: Jason Carnahan

Category: Earth & Environmental Sciences

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

Every day, clean water sources are drying up due to climate change. We aimed to create a filter that would clean the water from harmful chemicals and other contaminants. Our filter could be used when these sources are swallowed up and inaccessible. While we could accomplish this, it took a few trials and errors. In our successful experiment, we hypothesized that the paper towel filter would reduce the amount of sediment that was carried through the filter and deposited in our water because... We were able to create a filter using nylon, cotton balls, pine needles, rosemary, paper towels, sand, pulverized charcoal, mineral rocks, and mandarin oranges. To build the filter, we took all of the materials just mentioned and put them in their designated order. Our independent variables were paper towels, leaves, and corn husks. Our control was a Britta water pitcher which is a popular, professionally made water filter. As a result, our experiment went well. Our hypothesis was correct, the paper towel filter did the best, but all of our filters were able to clear the water, at least to some extent even the leaf, (Which was our worst) made our water potable, and clear enough to drink. In the future, our experiment could be turned into a filter that works similarly to the Britta filter, where there is a capsule that the water filters through, but ours will be more convenient to carry in an emergency.

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

Team Leader's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Team Member 1's Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Team Member 2'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 your Finalist Verification/Permission Form. **A signed copy of this form must be included in your notebook.**