

# SAN JUAN NM REGIONAL SCIENCE & ENGINEERING FAIR

## JUNIOR AND SENIOR DIVISION

### ABSTRACT & CERTIFICATION

**TITLE:** Filtration Station 2.0  
**Name:** Odin McMinn  
**School:** Hermosa Middle School  
**Grade Level:** 6th

Type the Body of Your Abstract Here (250 Word Maximum)

The purpose of my project was to test if the amount of activated charcoal in a homemade water filter impacted its effectiveness? My hypothesis was that the filter with the moderate amount of charcoal or .01 oz will filter the water the most effectively without overcorrecting the water sample. In order to get started I collected the water sample from Farmington Lake and tested the sample to act as the control. Once that was completed I made 3 water filters using the same household materials and products, the only variable was the amount of charcoal in each filter. Some of the materials included a 1 liter plastic bottle, coffee filters, cotton balls, activated charcoal, sand, pebbles, and lava rock. Once each of the filters were made I shook the collection jug for one minute prior to each trial in order to stir the sediment equally. Once that was completed I took the first filter and poured 5oz of water into the filter and waited for the water to pass. Once it passed I tested pH, turbidity, and chlorine levels for each sample. This was then repeated for a total of 6 trials per filter or 18 trials overall. In conclusion I found that all three water filters improved the water however the .01 had the best rating overall.

1. The student independently performed all procedures as outlined in this abstract  Yes  No
2. This project is a continuation.  Yes  No
3. This project is being presented at  SJRSEF  NMJAS Paper Competition

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.

*Odin McMinn*

Student's Signature

2/22/21

Date

