



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: A World of Water

Finalist's Name: Elizabeth Gerk

School and City: Wiggins Middle School

Sponsor's Name: Paul Gerk

Category: Chemistry

Division: Junior (grades 6 - 8)

Abstract (250 words or less):

Abstract

A World Of Water

Elizabeth Gerk

The purpose of this project was to find the pH of different waters. I used tap, hose, school, purified tap, purified bottled, and Illiff. I hypothesized the closest to neutral would be the Purified Bottled Water. The Purified Bottled Water has gone through multiple tests, exposing it to minerals, pushing it further from its neutral state. The minerals in the tests give off sodium and carbonates affecting the pH. PH levels are determined by the acidity, sodium, and carbonates in the water.

The experiment involved gathering different types of waters. The waters I used included: Normal Tap Water, Purified Tap Water, Purified Bottled Water, Hose Water, School Water, and Illiff, Colorado Water. I tested them with a pH probe to find the pH then collected my data.

The data collected did support the original hypothesis, but it was incorrect. My hypothesis was that the Purified Bottled Water would be closest to neutral because I thought it was the "healthiest". The Regular Tap water had a pH of 7.28 and the Purified Bottled water had a pH of 6.35. All of my water samples were close to neutral but the Regular Tap water was the closest.

These findings lead me to believe that Regular Tap Water is the closest to neutral when it comes to the high alkaline in water. This does not mean any of these waters are harmful to humans, but it's nice to know what you are drinking.

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.**