

CWSF 2016 - Montreal, Quebec



Micah Windsor-Freeman

Learning from Flint: Is NaOH the Solution to Pb-Contaminated Drinking Water?

Challenge: Environment

Category: Junior

Region: Northwestern Ontario

City: Shuniah, ON

School: Claude E. Garton

Abstract: In response to a local pilot study in which sodium hydroxide is being added to drinking water to neutralize lead, I compared the effects of lead- and sodium-hydroxide-contaminated water to uncontaminated drinking water on plant growth. After four weeks I observed that sodium hydroxide is an effective method of neutralizing lead and therefore may be less harmful than leaving lead-contaminated water untreated.

Biography

I am Micah Windsor-Freeman and I go to Claude E. Garton Public School. This is my second time at CWSF. I am very interested in chemistry (reactions, nuclear transmutation), cell biology (cell structure, mitochondrial ATP production) and quantum physics (quantum computing, quantum key distribution). In the future, I hope to get a job at the Thunder Bay Regional Research Institute as a research data analyst or cytologist. I did this project because of the problem in Thunder Bay with lead service pipes leaching into the drinking water, and the Current River pilot study. I have already mentioned my career plans, but specifically, as a cytologist, I would like to study mitochondria, ATP, ADP and the ATP synthase enzyme. For anyone thinking about doing a project, don't give up just because it takes a lot of time and effort and hard work. Once it's completed, you will be left with the feeling that you can accomplish anything (which is mostly true anyway).

Awards

Value

Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$250
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
Total	\$4 250