

CWSF 2017 - Regina, Saskatchewan



Skye Dusolt

Steam with Nanoparticles

Challenge: Energy

Category: Intermediate

Region: Northwestern Ontario

City: Neebing, ON

School: Sir Winston Churchill C.V.I.

Abstract: Light absorbing nanoparticles create steam without bringing the surrounding water to the boiling point. Gold, silver and carbon black nanoparticles were tested. The weight loss of the liquid after placed in the sun for 30 minutes determined the amount of light absorption. Silver lost the most weight followed by carbon black then gold. This information can be used to provide cheap sources of clean water.

Biography

I am currently attending Sir Winston Churchill as part of the International Baccalaureate Program. I am a member of the Thunder Bay Thunderwolves junior basketball team. I live on a hobby farm and participate in animal showings during the summer, which I have been quite successful in previous years. My inspiration for my project came after watching a video by Rice University on youtube. I conducted extensive research regarding the topic, and found very limited information on light absorbing nanoparticles. I realized how many purposes steam energy has, and thought that if I gathered basic information I could then move on to design a water distiller to provide people with a safe source of water. In the future, I plan to create a working, portable water distiller in hopes of improving the lives of many. For anyone thinking to do a project, I would strongly suggest an original and interesting idea. It also needs to be a topic that you are interested in, because one of the more important things to remember about science fair is that it should be fun! Science fair is an incredible opportunity that everyone should experience.

Awards

Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000