

# CWSF 2013 - Lethbridge, Alberta



## Kelsie Emisch

### Aqua Pura: Water Purification with Household Materials

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Northern Saskatchewan

**City:** Air Ronge, SK

**School:** Churchill Composite H.S.

**Abstract:** For my project 'Aqua Pura' I designed a simple purification apparatus with only house-hold materials, for those affected by natural disasters. The purification apparatus removes E. coli, Turbidity, Iron, Copper, Phosphate, Colour, and Total Coliform. The purpose of this is so that the disaster victims will be able to produce clean drinking water in hopes of sustaining themselves until help arrives.

## Biography

My name is Kelsie Emisch. I am 15 years old and currently residing in Air Ronge, Saskatchewan. I am in grade ten and working hard to graduate a year early. I enjoy science, music, and writing. The inspiration for my project came from seeing a lot of stories on the news about natural disasters. A large number of the victims were dying due to dehydration while waiting for rescue. This broke my heart, so I asked myself 'is there anything I can do to help these people get clean drinking water, using only materials they might have access to?'. So I set forth in designing a water purification procedure with household materials. I am planning on testing more materials and also improving upon my most effective procedure of using a clay pot and solar heat, by building a pressure device for the clay pot. A piece of advice I would give students inquiring on doing a science project is to do something you're very passionate about. I found that I had more drive to better my project this year because I am very passionate about it. Also, don't procrastinate! Work a little bit each day until you're done.

## Awards

## Value

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|---|---------|
| Excellence Award - Intermediate - Bronze Medal<br>Sponsor: Youth Science Canada                                 | \$100   |
| Western University Scholarship<br>Bronze Medallist - \$1000 Entrance Scholarship<br>Sponsor: Western University | \$1 000 |
| Total   | \$1 100 |