

## CWSF 2011 - Toronto, Ontario



### Sandra Dusolt

#### No power, no water, no food, no problem!

**Challenge:** Resources

**Category:** Senior

**Region:** Northwestern Ontario

**City:** Neebing, ON

**School:** Sir Winston Churchill C.V.I.

**Abstract:** The purpose of this experiment was to test whether a biofilter for growing food in a confined space can breakdown pollutants and remove harmful bacteria from both grey water and sewage so that the water can be reused. A second objective was to show that biofilters can clean water, grow food, produce energy, and clean the air.

#### Biography

I am currently attending Sir Winston Churchill in the grade 11 IB program. My favorite subjects in school are science and math. I also work as a lifeguard at a local pool and participate in a few lifeguard competitions throughout the year. When I'm not at school or at work, I swim on the Thunder Bay Thunderbolts. In my spare time, I like to read fiction books and play my clarinet. My favorite season is summer because I really enjoy hiking, swimming, camping, rock climbing, and hanging out with my family. I usually spend my weekends playing board games at my uncle's house. (Monopoly is always a favorite) After high school, I want to attend university, but I don't know what I want to do.....yet.

#### Awards

#### Value

Challenge Award - Resources - Senior Sponsor: Youth Science Canada	\$1 000
Excellence Award - Senior - Gold Medal Sponsor: Youth Science Canada	\$1 500
Dalhousie University Faculty of Science Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: Dalhousie University, Faculty of Science	\$5 000
UBC Science (Vancouver) Entrance Award Senior Gold Medallist - \$4000 Entrance Scholarship Sponsor: The University of British Columbia (Vancouver)	\$4 000
University of Manitoba Entrance Scholarship Senior Gold Medallist - \$5000 Entrance Scholarship Sponsor: University of Manitoba	\$5 000
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
University of Ottawa Entrance Scholarship Senior Gold Medallist - \$4,000 Entrance Scholarship Sponsor: University of Ottawa	\$4 000
<b>Total</b>	<b>\$24 500</b>