

# CWSF 2011 - Toronto, Ontario



## Calvin Rieder

### "Water, water everywhere, Nor any drop to drink" Atmospheric Water Condensers

**Challenge:** Innovation

**Category:** Junior

**Region:** Bay Area

**City:** Oakville, ON

**School:** Oakville Christian School

**Abstract:** Atmospheric water condensers are being developed in this project to provide drinking water. A covered prototype was designed with aerodynamic internal components and constructed from stainless steel. Windcatcher attachments were designed and constructed to divert air into the condenser. Aerodynamic changes resulted in a greater water condensing efficiency and the prototype functioned in a natural environment. The water yield was greater than conventional planar

#### Biography

Calvin is a Grade 8 student at Oakville Christian School in Oakville, Ontario, where he likes all subjects while favouring math, science and music. He was born in Sydney, Australia and lived in the United States before settling in Canada. Calvin has been a competitive swimmer and earned the Bronze Star, Medallion and Cross certifications as steps to completing lifeguard training. He also plays baseball and basketball. He has a great interest in marine biology and one of his ambitions is to return to Australia to experience the Great Barrier and Ningaloo reefs. Calvin has been training in voice, theatre and piano since age six. He is a member of the Canadian Children's Opera Company and has performed in several professional and student theatre productions including La Boheme with the Canadian Opera Company, Seussical the Musical with Theatre Aquarius as well as performances with the Toronto Symphony Orchestra. He has won several awards for voice including First Class Honours with Distinction in Royal Conservatory examinations. In the past year Calvin attended the Engineers Without Borders Canada National Conference and TEDxYouthDay. Calvin's favourite holidays include swimming, canoeing and hiking at his family's cottage and trips spent exploring North America.

#### Awards

#### Value

Excellence Award - Junior - Gold Medal Sponsor: Youth Science Canada	\$1 500
The University of Western Ontario Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: University of Western Ontario	\$4 000
Total	\$5 500