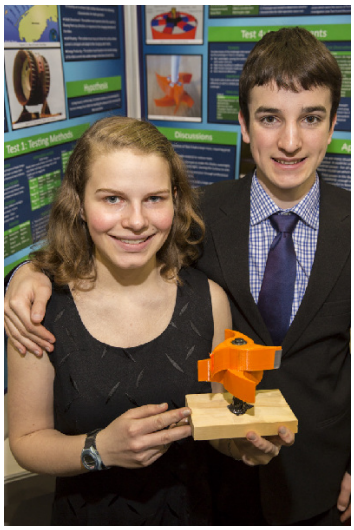
CWSF 2015 - Fredericton, New Brunswick



Margaret Hopkins, Nathan McNally

Tidal Potential: Harnessing the Power of the Tides

Challenge: Energy
Category: Intermediate
Region: Annapolis Valley
City: Wolfville, NS
School: Horton High School, Northeast Kings Education Centre

Abstract: This project investigates the possibility of using in-stream, vertical axis, drag-based turbines to harness the abundant energy of the tides. Through this project, a prototype tidal turbine was developed using multiple tests. A design was innovated that displays many positive attributes for running in a tidal situation. This technology could be used to harvest energy from tides all over the world.

Biographies

Margaret - I am a grade 10 student from Wolfville, Nova Scotia. I have participated in science fairs since the age of 8 because I love to experiment. Through a previous project, I developed an ergonomically fitted conducting baton inspired by my father, who is a professor of music. I play piano, trumpet, and sing. I am a member of many ensembles at school, Acadia University, the Nova Scotia Youth Wind Ensemble, and the Annapolis Valley Honour Choir. My pastimes include reading, math, and music. Growing up near the Bay of Fundy introduced me to the amazing extent of the tides, and the parents of my good friend are both involved in developing tidal energy...

Nathan - My name is Nathan McNally. I am currently in grade 10 at Northeast Kings Education Centre in the Annapolis Valley of Nova Scotia. Music is a big part of my life. I play trumpet, French horn, piano and I sing. I also enjoy acting, soccer and the outdoors, especially canoeing and camping. In my free time, you can find me building things and playing around with new ideas. Living in the Annapolis Valley, the enormous power of the close by Bay of Fundy is extremely evident. To harness the power of the Bay of Fundy would provide all of Nova Scotia with clean renewable power and huge economic potential. This is part of the inspiration for the projec...

Awards	Value
Renewable Energy Award - Intermediate Sponsor: Ontario Power Generation	$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - $2000 Entrance Scholarship Sponsor: Western University	$2 000
Total	$2 750

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