

# CWSF 2016 - Montreal, Quebec



## Vanessa McKay

### Using a Low-Density Field to Improve Water Vessel Speed and Efficiency

**Challenge:** Innovation

**Category:** Senior

**Region:** St. James-Assiniboia

**City:** Winnipeg, MB

**School:** St. James Collegiate - Academy of Science and Technology

**Abstract:** What if we could improve the speed and efficiency of water vessels? Now we can. In the first investigation, gas bubbles were tested to lower the density of water, reducing travel time. In the second investigation, a force test was conducted, proving that gas bubbles lower the force of flowing water. A third investigation was conducted to apply my new knowledge on a model boat.

#### Biography

My name is Vanessa McKay. I am an Aboriginal female in grade 12 at St. James Collegiate in Winnipeg, Manitoba. At school, I am on many different committees. I'm the student council president, and a member in Youth in Philanthropy and also a member on the grad committee, to name a few. I've launched a balloon to space twice through the Global Space Balloon Challenge, tutored my peers, and acted in my school's drama production. Along with my community involvement and volunteerism, I love to rock climb, read and write.

#### Awards

#### Value

Excellence Award - Senior - Bronze Medal Sponsor: Youth Science Canada	
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
<b>Total</b>	<b>\$2 000</b>