

# CWSF 2010 - Peterborough, Ontario



## Darrick Lee, Owen Lu

### Power Generated from a Wind Turbine

**Division:** Physical & Mathematical Sciences

**Category:** Senior

**Region:** Greater Vancouver

**City:** Richmond, BC

**School:** Richmond Secondary

**Abstract:** The power generation of a wind turbine is given as a simple cubic function however, physics equations generally tend to oversimplify phenomenon. We tested how power generation was affected factors such as blade size, gear ratio, and wind velocity. Through data analysis we were saw consistent trends in numerous graphs, and tried to explain the deviation from the original equation by creating our own.

### Biographies

Darrick - My name is Darrick Lee, and I'm currently in Grade 11 at Richmond High Secondary in BC. I've had an interest in the environment for a few years now, and have created a rap music video encouraging sustainability with a friend that has won a local video contest. I have attended the UNEP International Youth Conference on the Environment in South Korea in the summer of 2009. I have done presentations at local elementary schools and leadership conferences about sustainability. I really enjoy science, and hope that I can someday combine these two things I enjoy (the environment and sciences) into a career. I'm hoping to study mechanical and electri...

Owen - As a child I always enjoyed playing a variety of sports which carries through from my childhood to today. I also like music and play the piano at a grade 9 level. The sciences and mathematics are my favourite subjects and I value exercising physically equally with exercising mentally. In the past I have placed and in numerous piano competitions and also represented my city in a basketball team.

### Awards

### Value

CAP Physics Prize - Senior Sponsor: Canadian Association of Physicists	\$1 000
The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
University of Ottawa Entrance Scholarship Senior Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Ottawa	\$1 000
Bronze Medal - Physical & Mathematical Sciences - Senior Sponsor: Encana Corporation	\$300
<b>Total</b>	<b>\$3 300</b>