



Waterloo-Wellington Science & Engineering Fair 2011 Annual Report



This is what success looks like. All 9 of the WWSEF exhibitors at the 50th Canada-Wide Science Fair earned awards, as did the two (not included in the photo) who were selected to represent Canada at the International Science and Engineering Fair.

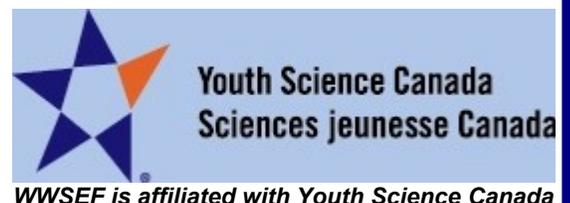
2011 Program

The 2011 program to Develop Environmental Advocates and Researchers focused on the importance of the Ocean in our lives as a source of half the oxygen we breathe, our food and climate, and introduced some of the perils humans are causing through acidification and pollution.

Professional Development

Once again we were able to present a professional development opportunity to several teachers at the Fair. The workshop presented ways to support project-based science, including science fairs.

Visit us on the web at
www.wwsef.ca



Canada-Wide Science Fair Toronto...



Paul Albert-Lebrun, Cambridge, St. John's-Kilmarnock School

Paul designed and built a test tunnel with a viewing window so he could study if cavitation caused by a boat propeller could be reduced with hydrophobic coatings. All boat propellers are damaged by cavitation so steps to reduce the phenomenon would be beneficial.

Awards: Excellence Award - Senior - Bronze Medal (\$300), Scholarship offers to U of Ottawa (\$1000) and UWO (\$1000)

Marieta Buse, Kitchener, St. John's-Kilmarnock School

Marieta's project investigated the effects of several metals on the root and shoot lengths and germination rates of wheat seeds. The study encourages to be more aware of the health risks of toxic metals in the environment.

Awards: Excellence Award - Senior - Bronze Medal (\$300), Scholarship offers U of Ottawa (\$1000) and UWO (\$1000)



Andrew Martin and Eric Stubley, Cambridge, Waterloo, Cameron Heights C.I.

Andrew and Eric's project created a computer model of bacterial population growth by modeling single cells and their environment, allowing properties of the population to emerge.

Awards: Actuarial Foundation of Canada - Senior (\$1000), Challenge Award - Senior (\$1000), Excellence Award - Senior - Gold Medal (\$1500), Scholarship offers (each) to Dalhousie University (\$5000), UBC (\$4000), U of Manitoba (\$5000), U of Ottawa (\$4000), and UWO (\$4000)

John Hinch, New Hamburg, Forest Glen P.S.

John's project examined the effect of a person's dominant sense on their conscious and unconscious decisions to act. John used a driving simulation game to engage participants.

Awards: Excellence Award - Junior - Bronze Medal (\$300); UWO entrance scholarship (\$1000)





Steven Liu and Kevin Peng, Waterloo, Centennial PS

Steven and Kevin investigated the effectiveness of natural preservatives by examining bacterial concentration and the size of the antimicrobial ring in a variety of cultures.

Awards: Challenge Award - Information Junior (\$500); Excellence Award - Junior - Silver Medal (\$700); UWO entrance scholarship (\$2000 each).

Zach Elgood, New Hamburg, Cameron Heights C.I.

Zach's project extended his study of in-stream bioreactors to consider potential side effects. Further, degradation of the bioreactor materials by white-rot fungi had the potential to produce methyl chloride, known to deplete ozone. Neither white-rot fungi nor methyl chloride were present in the bioreactor studied.

Awards: Excellence Award - Senior - Bronze Medal (\$300), Scholarship offers to U of Ottawa (\$1000) and UWO (\$1000)



Stephanie Chan, Cambridge, St. John's-Kilmarnock School

Stephanie studied the effectiveness of crude oil degradation by two microorganisms, jointly and singly in contaminated marine shoreline microcosms. The pair was superior to either one acting alone. Stephanie then considered the potential cost savings to using both.

Awards: Renewable Energy - Senior (\$1000), Excellence Award - Senior - Silver Medal (\$700), Scholarships Dalhousie University (\$2500), UBC (\$2000), U of Ottawa (\$2000), UWO (\$2000)

Janelle and Vivienne Tam

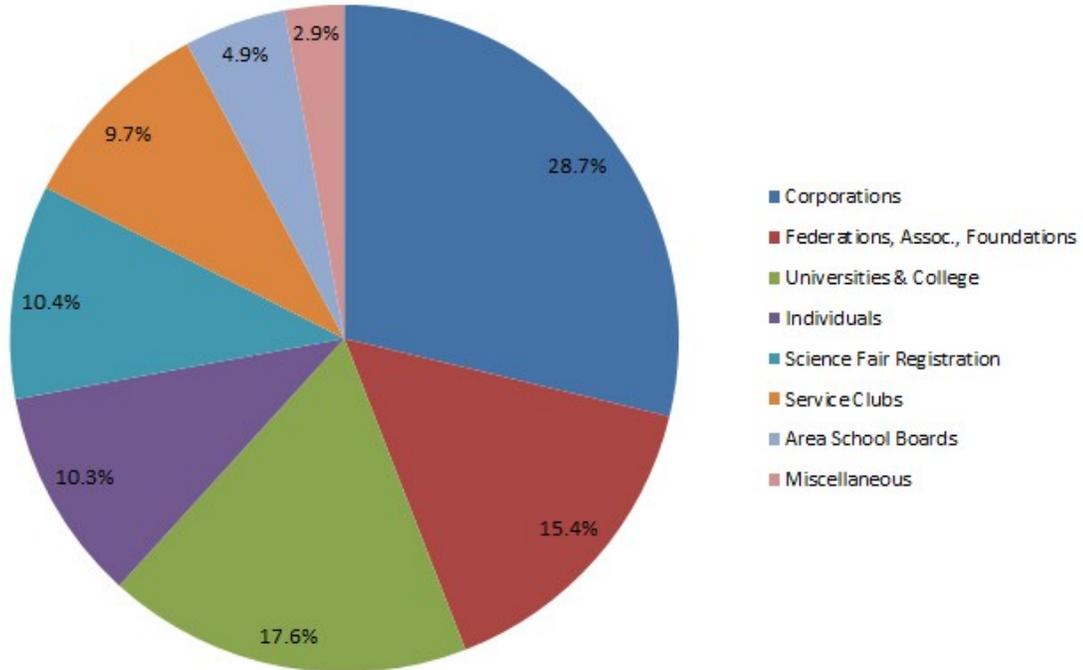
Janelle and Vivienne were selected by Youth Science Canada for the second time to be part of Team Canada at the Intel International Science and Engineering Fair in Los Angeles. Their project, Cellulose Crystals Clean and Cure, was in addition to the ones they presented separately at WWSEF.

Award: Fourth Place Grand Award (\$500)



2011 Financials...

2011 Revenue



2011 Expenses

