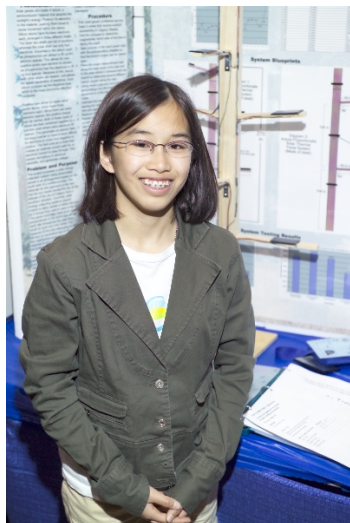


CWSF 2006 - Saguenay, Québec



Eden Full

The Nerdy Tree

Division: Engineering & Computing Sciences

Category: Intermediate

Region: Calgary Youth

City: Calgary, AB

School: Queen Elizabeth Junior Senior High School

Abstract: Picea Glauca (White Spruce) tree morphology was analysed to design a photovoltaic solar panel system. The best-looking phenotypes were examined, and the tree's south and southwest sides were measured. The constructed system was based on the mathematical data collected. The system was compared to an average single-panel system with a rotating motor. Results proved this system generated 268% more power output in a series circuit.

Awards	Value
AECL Award for Excellence in Science - Intermediate Sponsor: Atomic Energy of Canada Ltd.	\$750
George Fletcher Award - Intermediate Sponsor: Canadian Council of Technicians and Technologists	\$500
Natural Resources Canada (NRCan) Office of Energy Efficiency Award Intermediate Sponsor: Natural Resources Canada (NRCan) Office of Energy Efficiency	\$500
Petro-Canada Peer Innovation Award - Intermediate - Western Canada Sponsor: Petro-Canada	\$200
The University of Western Ontario Scholarship Silver Medallist - \$1500 Entrance Scholarship Sponsor: University of Western Ontario	\$1 500
Silver Medal - Earth & Environmental Sciences - Intermediate Sponsor: Petro-Canada	\$700
Total	\$4 150