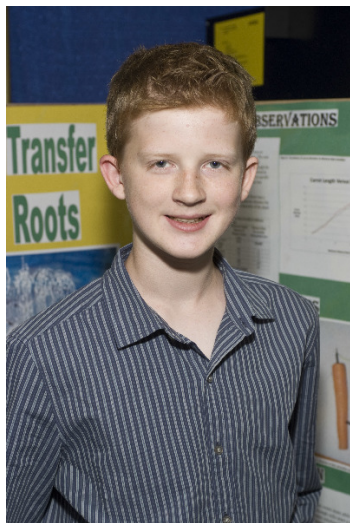


# CWSF 2010 - Peterborough, Ontario



## Nicholas Johnston

### Testing Data Transfer over Plant Roots

**Division:** Engineering & Computing Sciences

**Category:** Intermediate

**Region:** South Fraser

**City:** Surrey, BC

**School:** Semiahmoo Secondary

**Abstract:** This experiment investigates the transmission of data through dandelion, yellow turnip and carrot roots. Data was observed to transit each specimen type at rates as high as 115,200 bits per second for a limited distance, where the data transmission abruptly stopped. In carrots, transmission distance was found to be positively correlated to carrot diameter.

### Biography

Nick Johnston is a grade 9 student at Semiahmoo Secondary School in Surrey, British Columbia, where he maintains a 90 and above average. His main scholastic interests are in the areas of computer science, engineering, physics and programming. Nick one day aspires to be a computer engineer. Outside of school Nick enjoys swimming, ice hockey, mountain biking, running, and is working towards his black belt in Mixed Martial Arts. Being very interested in travel, Nick will participate in a French exchange program this summer in the south of France. He has hopes of one day visiting all seven continents.

### Awards

### Value

The University of Western Ontario Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: University of Western Ontario	\$1 000
Bronze Medal - Computing & Information Technology - Intermediate Sponsor: Intel of Canada, Ltd.	\$300
Total	\$1 300