

# CWSF 2009 - Winnipeg, Manitoba



## Greg Koestler, Clay Schroeder

### Mario from Scratch

**Division:** Earth & Environmental Sciences / None

**Category:** Senior

**Region:** Windsor

**City:** Leamington, ON

**School:** Leamington District H.S.

**Abstract:** We programmed a replica of the classic Super Mario Bros. arcade game in the MIT programming language, Scratch. This program uses scrolling, threads/synchronization, and events to allow the Mario sprite to explore 8 levels, advancing through the game based on points accumulated. Gravitational force, velocity and acceleration are simulated, and are used in conjunction with animation techniques to achieve realistic movement in two dimensions.

### Biographies

Greg - My name is Greg Koestler, I am a grade 11 student currently at Leamington District Secondary School. I was born and raised in Leamington and have always lived on the family farm. Some of the hobbies that I enjoy are, playing hockey, working out, biking, and playing video games. For the past four years I have been playing AAA hockey in various cities such as Windsor, Chatham and Sarnia. While playing at this very competitive level of hockey I have been able to maintain an average in school that is above 80%. After high school I plan to further my education by going to University and studying computer sciences, or accounting, and ultimately one...

Clay - My name is Clay Schroeder, and I go to Leamington District Secondary School. I am currently in grade 11 and play, basically, every sport in the book. My favorites include: Hockey, Volleyball, Badminton, Soccer, and Tennis. I also strangely, according to many, play piano in my spare time. I also enjoy competing in track and field, and have been to OFSAA, the past 2 years in a row. I am currently ranked 3rd in the province of Ontario, for pole vault. I have also received athlete of the year, the past 2 years in a row, at LDSS. I also take academics very seriously; I have won the Pascal and Cayley Math contests at LDSS in grade 9 and 10 respecti...

### Awards

### Value

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 - Computing & Information Technology - Senior Sponsor: Intel of Canada, Ltd.	\$300
<b>Total</b>	<b>\$2 300</b>