

# CWSF 2011 - Toronto, Ontario



## Alexander Sapp

### Sound Localization: The Shape of The Ear

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Halifax

**City:** Halifax, NS

**School:** Fountain Academy of the Sacred Heart

**Abstract:** This project tested whether the pinna is necessary in front/back sound localization when no head movement or visual cues are provided. The project found that not only was the pinna necessary, but when the test subject wore the headphones to reverse the pinna, they correctly identified front/back sounds less than half of the time.

#### Biography

I am fifteen years old. I participate in cross country and track, as well as sailing in the summer, spring and fall. I live in Halifax Nova Scotia, and this is my first Canadian wide science fair. I was born in Halifax, and moved to Boston for 2 years when I was about 5, before moving back to Halifax.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$700
The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
<b>Total</b>	<b>\$2 700</b>