

# CWSF 2012 - Charlottetown, Prince Edward Island



## Catharine Bowman

### Get a Grip on It!

**Challenge:** Health

**Category:** Junior

**Region:** Bay Area

**City:** Dundas, ON

**School:** St. Augustine E.S.

**Abstract:** This project is an investigation of musculoskeletal injuries related to gripping computer tablets and the efficacy of a prototypical handheld assistive device in reducing muscle fatigue. It was concluded that gripping a tablet can cause hand and wrist muscle fatigue, suggesting the potential for musculoskeletal injury. The handheld assistive device reduced discomfort and increased holding time of the tablet by over 40% and 49%, respectively.

### Biography

I am a grade eight student at St. Augustine school in Dundas. I enjoy all sports and have played rep. basketball for seven years, winning many team and individual awards. I have been on many school sports teams and also play competitive chess, winning many tournaments. I play guitar, piano, and drums and compose my own music. I am involved in the music ministry in my church and assist with music at school. Other church activities include altar serving, youth ministries and food drives. I really enjoy camping in wilderness locations and have camped in every province. I also canoe and kayak. I hope to attend university to study archeology, science or music. This is my second Canada Wide science fair and I loved the experience last year. All three of my brothers have competed in science fairs and they have gone to Canada Wide and ISEF. We are a science fair family! I love science and look forward to competing in future fairs.

### Awards

### Value

Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 700