

# CWSF 2019 - Fredericton, New Brunswick



## Graydon Strachan

### MAC-2: Estimation of Weight Using a Modified Blood Pressure Cuff

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Winnipeg Schools

**City:** Winnipeg, MB

**School:** Grant Park High

**Abstract:** Knowing an unconscious child's weight in a medical emergency is an important detail to calculate and administer medications. Using the CDC National Health And Nutrition Examination Survey data set, I have developed a method of using a modified blood pressure cuff to estimate weight more rapidly and accurately than current estimation methods.

#### Biography

My name is Graydon Strachan. I am a grade 9 student in the AP program at Grant Park High School in Winnipeg. Some things I enjoy doing in my spare time include playing soccer, hockey, Roman-Greco wrestling, simulation games, science fair, and cross country running, (which I do better than anything else). I have been doing the science fair for the last 5 years, and my past projects have ranged from videotaping myself jumping in elevators, estimating foot growth, drought-proofing my parent's garden, and even creating artificial muscle from nylon fishing line. As you may guess, I get my ideas for projects from all sorts of places. This year I was particularly interested in the estimation of weight using biometrics after seeing a poster at a medical conference in South Africa that my dad took me to. Every year, I learn a little bit more about the scientific process and how to present my ideas. In the future I plan to continue working in the biomedical field, and perhaps even elaborate upon my existing project ideas.

#### Awards

#### Value

The Actuarial Foundation of Canada Award - Intermediate Sponsor: The Actuarial Foundation of Canada	\$750
Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 750</b>