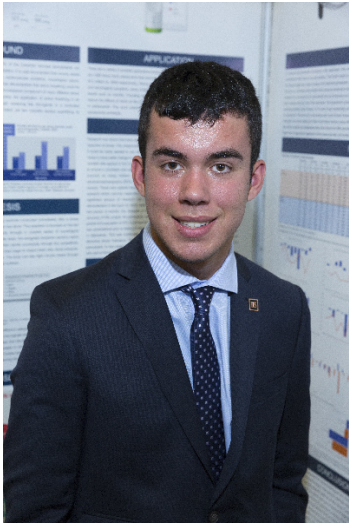


# CWSF 2018 - Ottawa, Ontario



## Harrison Cormier

### Evaluating Stress Reduction Methods in Adolescents by Analyzing Key Bio Signals

**Challenge:** Health

**Category:** Junior

**Region:** Greater Vancouver

**City:** Bowen Island, BC

**School:** Island Pacific School

**Abstract:** This experiment evaluates active breathing as an effective stress reduction technique through analyzing four key biosignals on two separate study groups. Electroencephalography data, blood pressure, heart rate and temperature were measured. Detailed measurements and statistical analysis demonstrate significant improvement when active breathing is practiced. These results support the use of active breathing as an effective mitigation tool that can reduce stress in adolescent students.

#### Biography

My name is Harrison Cormier and I am a fourteen-year-old grade 8 student at Island Pacific School on Bowen Island, British Columbia. I have always been fascinated by science and mathematics and their application to solving issues that can better our world. I enjoy learning about the latest innovations in technology, neurology and health as well as reading literature from contemporary scientists and entrepreneurs. My hobbies include travel, swimming, martial arts, sailing and volunteering within my community. I was inspired to research stress in adolescents as it is a prominent issue in our society affecting their quality of life with short and long-term health implications. I focused my research on providing scientific evidence that statistically supports the correlation in between active breathing and a quantifiable reduction in stress. I have competed at three Regional Science Fairs and I look forward to participating in my second CWSF this year in Ottawa. My advice for students worldwide is to be passionate about their interests and never stop asking questions.

#### Awards

#### Value

The Actuarial Foundation of Canada Award - Junior Sponsor: The Actuarial Foundation of Canada	\$500
Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 500</b>