

Local students participate in Quinte Regional Science Fair



By Bill Kilpatrick

On April 5 Grade 8 student Ares Worsley and Grade 10 student Thomas Love from North Hastings High School traveled to Centennial Secondary School in Belleville to compete in the 65 annual Quinte Regional Science and Technology Fair. The fair, which was started in 1960, is open to students from all over Hastings and Prince Edward District School board from Grade 4 to 12. The fair breaks down competitors into three categories, junior for Grades 4 to 6, intermediate for Grades 7 and 8, and senior for Grades 9 to 12. The fair challenges students to come up with an innovation, do a case study, or a discovery project. There are over 20 special awards that are handed out in categories such as computer science, engineering, sustainability, robotics, etcetera, along with multiple other prizes for best in grade group, best in grade, best in fair, and the Canada-wide science fair awards.

Worsley, who was competing for his third time, decided to examine how much sunscreen comes off of a human's skin when they do not give it the recommended 15 minutes to soak in. In an email to Bancroft This Week, Worsley explained another aspect that he was attempting to measure and some of his findings. 'I focused on determining how to measure the sunscreen that contaminates the water. By applying sunscreen to a test surface and exposing it to water at different time intervals, I used different methods to measure the amount of sunscreen washed off, aiming to understand the potential environmental impact of unabsorbed sunscreen. After checking mass, dissolved oxygen, pH, and conductivity I found that conductivity measurements have the potential to quantify the amount of sunscreen that washes off in water. After some research I also found that the Environmental Protection Agency uses conductivity as an indicator of water pollution. Along with that I found that there are a lot of detrimental effects of sunscreen in water.' Despite five separate interviews from different judges, Worsley did not manage to get an award, but he did receive an honourable mention for his grade.

For his project, Love decided to try and invent a roller blind that would open and close depending the amount of light that was available. Love explained where his idea came from stating 'I was looking at the roller blind in my room one day and thought 'I bet I could create something that could make the blind move automatically up and down based on the amount of light in the room without me needing to do anything.' I asked our physics teacher, Leaf Worsley, if it was possible, and she encouraged me to design it using Micro:bit and to enter my idea into the science fair.' Micro:bit is an open-source computer that fits into the palm of your hand and according to their webpage 'introduces you to how software and hardware work together. It has an LED light display, buttons, sensors, a speaker, microphone and many other input/output features.' Love's project earned him two awards best in his age and the professional Engineers of Ontario Award. According to Love his win has inspired him to continue to innovate and 'think up new ideas for future science projects.'

The Quinte Regional Science and Technology Fair's mission is ?to encourage, foster enthusiasm, develop self-confidence, inspire and support an interest in science, technology and engineering for the youth in our area and to provide our students with the opportunity and skills to foster a lifelong love of science? and it would appear, that for these two aspiring innovators, it continues to be a success.