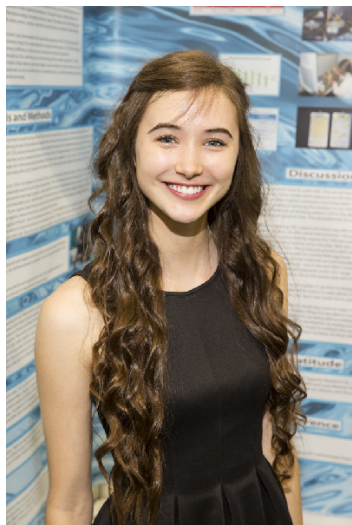


# CWSF 2015 - Fredericton, New Brunswick



## Kariann Szemethy

### Development of a low voltage UV-LED device for water disinfection

**Challenge:** Environment

**Category:** Intermediate

**Region:** Southeast Alberta

**City:** Medicine Hat, AB

**School:** Medicine Hat High School

**Abstract:** My project focused on shrinking the gap between first and third world water qualities by developing a handheld water disinfection lamp. In order to create something different than the already produced technology I used UVC waves from LED sources instead of the common fluorescent tubing. With circuitry and household materials I created a device to be tested. Careful thought process made solutions to challenges.

#### Biography

I am Kariann Szemethy, attending Hat High, grade 10. I have received numerous academic awards and scholarships during my elementary and middle school years. I am determined to graduate high school top of the class with scholarships. My plan includes university and graduate with a PhD in Medicine, to become a General Practitioner. Besides my academic strengths I am also an avid athlete. I participate in both school and club volleyball and basketball. I also play rep soccer and track and field. When I'm not playing sports I'm learning the piano, organ and guitar. My favourite electives are that of art class and playing the guitar, I love being able to express myself in ways more than words. Science has been a long time passion for me, especially environmental. I have been participating in Science Fair since grade 4 and have received many awards in school and regional fairs. It has always been my goal to be chosen to go to Nationals. This is my first opportunity to attend, but definitely not my last. Believe to achieve.

#### Awards

#### Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000