

## CWSF 2012 - Charlottetown, Prince Edward Island



### Bryn Friesen Epp

#### The Surface Tension of Water

**Challenge:** Environment

**Category:** Junior

**Region:** St. James-Assiniboia

**City:** Winnipeg, MB

**School:** Golden Gate Middle School

**Abstract:** How is the surface tension of water affected by changing the temperature, altering the pH level, dissolving salt, or adding detergent? Differences in surface tension are measured by the volume of water/solution a penny can hold. The results demonstrate that water pollutants can decrease surface tension and threaten the existence of pond creatures like water striders.

#### Biography

My name is Bryn Friesen Epp. I was born in 1999 in Waterloo, Ontario. I lived there for one year and then my family moved to New Orleans. At the end of 2001, we moved to Winnipeg where I live now. In my free time, I like to play piano and cycle. I enjoy playing volleyball and indoor and outdoor soccer. Right now I am also learning to ride a unicycle. At my school, I won an academic award for the second highest average in my grade. I also received a Peace Keeping award. I chose this science project because I was fascinated by water striders and wondered how they could walk across water. I did some research and found out that it is because of surface tension. That led me to research water molecules, hydrogen bonding, and what factors affect surface tension. In the future, it would be interesting to actually test pond water to measure the pollutants in the water and the effects on surface tension. My advice to students thinking about a science project is to choose a topic you are interested in and have fun with it.

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040