

## CWSF 2017 - Regina, Saskatchewan



### Cameron Smith

#### What Lurks in Your Water?

**Challenge:** Environment

**Category:** Intermediate

**Region:** Frontenac, Lennox & Addington

**City:** Lansdowne, ON

**School:** Kingston Collegiate Vocational Institute - KCVI

**Abstract:** Biofilm formation in drinking water systems creates potential risks for consumers health by hosting pathogenic or toxin producing microorganisms. The purpose of this preliminary study is to see if household water supplies show evidence of microbial contamination due to the presence of biofilm formation within water lines, and to determine the affect of water treatment systems on amount of microbial growth.

#### Biography

My name is Cameron Smith. I am currently in grade 9 attending the Pre-International Baccalaureate programme at KCVI in Kingston, Ontario. I am involved in the school's math and DECA club. I play hockey, and I like to play other sports and activities in my free time. Since both my parents are dentists, I know that draining the tap prior to utilizing water on patients is a necessity to eliminate microbial contamination due to biofilm growth within water lines. I was intrigued by this and decided to conduct a preliminary study on whether or not it actually helps reduce the microbial load for household water, but also on the quantity of growth in rural versus urban areas. In the future, I hope to identify the types of microbes growing in these water sources. For students looking to do a project, try to find something you like and/or intrigues you. I am interested in pursuing engineering following high school.