

## CWSF 2012 - Charlottetown, Prince Edward Island



### Dan Manning, Corey Morrison

#### Hand Sanitizers Creating Super Bugs

**Challenge:** Health

**Category:** Senior

**Region:** Quinte

**City:** Belleville, ON, Napanee, ON

**School:** Albert College

**Abstract:** Doctors can inadvertently contaminate their patients with DNA isolated from bacteria using hand sanitizers. Our experiment showed that DNA can be isolated using hand sanitizer, and this DNA can transform healthy bacteria. Firefly plasmids were initially incorporated into E.coli then isolated using hand sanitizer and transformed a second time. The bacteria grew in the presence of ampicillin and glowed with the addition of luciferin.

#### Biographies

Dan - My name is Danny Manning. I'm 14 years old and I live in Belleville, Ontario. I am involved with drama programs, and I play goalie for a local rep hockey team as well. I enjoy helping out in school classrooms with the younger grades. I also work on a dairy farm throughout the year, particularly in the summer; dairy farming has become a passion of mine. I haven't decided what I want to pursue as a career as I'm more of a "spur of the moment kinda guy".

Corey - I am 13 years old in Grade 7, in my first year at Albert College in Belleville, ON. I live in Napanee (BNOC) with my parents, younger brother and sister, 2 dogs, 1 gecko and 1 fish. I have been playing hockey since I was 6 years old. I became a goalie 3 years ago. I would play hockey everyday all year round if I could. My other interests include anything with a motor that goes fast on land or in water. I enjoy figuring out how things work in detail by reading and taking things apart. I think I would like to be an engineer when I grow up.

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