

## CWSF 2012 - Charlottetown, Prince Edward Island



### Stefanie Perrier, Natalie Sutherland

#### Stealing Your Money One Bump At a Time

**Challenge:** Energy

**Category:** Senior

**Region:** Northwestern Ontario

**City:** Thunder Bay, ON

**School:** St. Ignatius S.S.

**Abstract:** In order to determine the energy and money consumption of potholes on city roads and to analyze their impact on the consumer, calculations and physics theories can be used. A significant amount of energy, money, and gas are wasted due to potholes through the compression of the suspension system and deceleration and acceleration of the vehicle.

#### Biographies

**Stefanie** - Stefanie Perrier is currently a Grade 12 student at St. Ignatius High School in Thunder Bay, Ontario who is excited to be participating in the CWSF. As an active member of her school community, she is the Student Trustee for the TBCDSB and a member of the school's Student Council Executive. Stefanie feels the importance of giving back to her community and as a result she volunteers her time at the local hospital. Her academics are important to her as she's enrolled in Advance Placement courses and will attend university in the fall in the science field. Stefanie is an avid reader and enjoys making art by painting and drawing. The inspirat...

**Natalie** - I am a grade 12 student graduating this June and will be pursuing a career in mechanical engineering. I am an avid competitive dancer, love music, play the French horn, and am a math enthusiast. Spring brought the inspiration for this year's science fair project. The roads in my city suffer through the winter, resulting in the dreaded potholes. With gas prices rising and the comfort of the driving affected by having to endure potholes, the concept of physics and gas consumption came to mind. This concept could be brought forth to our city council to recommend repairs to potholes would be a cost-saving venture to the community. For any student...

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