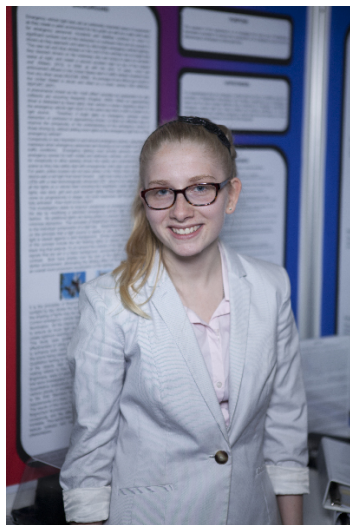


# CWSF 2013 - Lethbridge, Alberta



## Catharine Bowman

### Just The Right Light-An Investigation Using Bright/Dark Illumination Principles

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Bay Area

**City:** Dundas, ON

**School:** St. Mary's Catholic S.S.

**Abstract:** This project is an investigation of using Bright/Dark Illumination Principles to improve conspicuity of emergency scenes and effectiveness of emergency vehicle lighting. The hypothesis is that a modified emergency light bar will increase visibility of nearby objects and be more visually effective. The modified light was proven to be more visually effective and increased visibility of nearby objects when compared to standard emergency vehicle lights.

#### Biography

I am a grade nine student at St. Mary's Secondary School in Hamilton. I enjoy all sports and have played rep. basketball for eight years, winning many team and individual awards. I have been on many school sports teams. I play guitar, piano, drums, and sing, and I compose my own music. I am involved in the music and youth ministry in my Church. I enjoy camping and have camped in every province! I also canoe and kayak. I hope to attend university to study archaeology, science or music. This is my third Canada Wide science fair and I have loved the experience of previous years. All three of my brothers have competed in science fairs and they have gone to Canada Wide and ISEF. We are a science fair family! I love science and look forward to competing in future fairs. The inspiration for my experiment came from researching current issues and from articles I read about the "Moth Effect". I was able to identify a novel intervention to improve emergency vehicle light bars. Advice for other students thinking about doing a project? Just do it! You will learn more than just science!

#### Awards

#### Value

Challenge Award - Discovery - Intermediate Sponsor: Youth Science Canada	\$750
Excellence Award - Intermediate - Gold Medal Sponsor: Youth Science Canada	\$700
Western University Scholarship Gold Medallist - \$4000 Entrance Scholarship Sponsor: Western University	\$4 000
<b>Total</b>	<b>\$5 450</b>