

# CWSF 2015 - Fredericton, New Brunswick



## Katie Myatt

### Development of Latent 2-D Footwear Impressions: An Improved Methodology

**Challenge:** Innovation

**Category:** Intermediate

**Region:** Bluewater

**City:** Hanover, ON

**School:** Sacred Heart H.S.

**Abstract:** This experiment was conducted to create an innovative way to develop latent, two dimensional footwear impressions on paper. Current methods of developing footwear impressions are difficult to execute and to achieve accurate results. It was discovered that applying a method used to develop latent fingerprints, a solution of 1,2-indanedione with zinc chloride, proved to be far superior when compared to current methods of development.

#### Biography

Kathleen Myatt attends Sacred Heart High School in Walkerton, ON. She is in grade 9 french immersion. Kathleen enjoys participating in competitive gymnastics, hiking, canoeing and playing the violin in her free time. Kathleen got the idea for her project when she was speaking to a forensic officer, and he informed her that a significant problem for forensic officers everywhere is attempting to develop latent 2-D footwear impressions. Kathleen thought that she would be able to use her knowledge of chemistry and optics to attempt to solve the problem. The results of her project indicate that the use of the chemicals, 1,2 Indanedione and Zinc Chloride and a forensic light source will fluoresce any present footwear impressions. Kathleen has participated in every regional science fair since she was in grade 4. This is her third time competing in the senior division at her regional science fair, and her third time competing at the Canada Wide Science fair. She is currently interested in pursuing a career in health sciences.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
Total	\$2 000