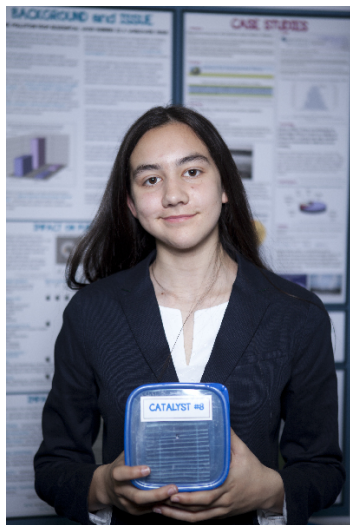


# CWSF 2013 - Lethbridge, Alberta



## Terra Lanteigne

### Particulates MATTER: Can a catalyst prevent PM from going up in smoke?

**Challenge:** Environment

**Category:** Intermediate

**Region:** Halifax

**City:** Hatchet Lake, NS

**School:** Bedford Academy

**Abstract:** Wood burning is far from being environmentally friendly. It is actually a significant source of pollution that affects public health and the environment. Unburned compounds from incomplete combustion go directly into the atmosphere. The purpose of this experiment was to design a chimney cap that would filter particulate matter and harmful pollutants from wood smoke therefore reducing the impact on the environment and public health.

#### Biography

Terra Carling Lanteigne currently attends Grade 9 at Bedford Academy in Bedford, Nova Scotia. She was born in Laval, Québec, and moved to Nova Scotia when she was six. Terra is determined to excel not only in her academics, but also in her other activities. She plays multiple instruments including the flute, piccolo, piano, and electric guitar, and is part of her school's choir, rock, jazz, orchestral, and select bands. She is a goaltender on a boys Bantam AA ice hockey team which went on to compete at the provincial tournament. She also spends her summers sailing. Terra is very interested in engineering and aspires to make a career in the field of aerospace. Her project was inspired by a smoky smell in the house, presumed to be coming from the chimney. That prompted her to research wood smoke composition, and the environmental and health impacts of the chemicals and pollutants it generates. She conducted an experiment aimed at reducing the amount of pollution caused by wood burning stoves. Terra attended CWSF last year, and is excited to be returning.

#### Awards

#### Value

Excellence Award - Intermediate - Silver Medal Sponsor: Youth Science Canada	\$300
Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University	\$2 000
<b>Total</b>	<b>\$2 300</b>