

## CWSF 2012 - Charlottetown, Prince Edward Island



### Rosie Daniels

#### Radon in Nova Scotia

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Annapolis Valley

**City:** Port Williams, NS

**School:** King's-Edgehill School

**Abstract:** This project was to design and construct a radon gas detector using readily available components; test naturally occurring radon levels in four buildings in three different locations; calibrate the home-made device and verify the test results using a professional detector; assess the potential risk to health in each building; and devise a plan to reduce radon levels in the building with the highest health risk.

#### Biography

Born in England, I moved to Nova Scotia four years ago with my family. I am in Grade 9 at King's-Edgehill School, Windsor. I enjoy both science and art, particularly drawing. My ideal career would be in film as a digital concept artist, or set/costume designer. I have participated in four Science Fairs, reaching Regional level on the past three occasions. This is my first year at National level. I really enjoy the opportunity that Science Fair provides to explore a subject that I am passionate about in greater depth; to meet new people; and to see what amazing projects fellow participants have created. The inspiration for this project came from an online article, which stated that Nova Scotia has the highest radon levels in Canada, together with a correspondingly high level of lung cancer. I was intrigued that the area in which I live should have such a harmful, yet naturally occurring, risk to health. As commercial radon detectors can be very expensive I decided to design and build a simple, cost-effective detector and test it in my own home and other key buildings in my everyday life.

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