

CWSF 2016 - Montreal, Quebec



Sierra Strang

Is Your House Killing You?

Challenge: Discovery

Category: Junior

Region: Avon Maitland-Huron Perth

City: Hensall, ON

School: Precious Blood

Abstract: Is Your House Killing You is a project on radioactive radon gas and which types of building foundations it's most likely to accumulate in. I use two kinds of homemade detectors to both visually and quantitatively measure radon concentrations.

Biography

Hello! I am Sierra Strang. I'm thirteen years old and live in Southwestern Ontario. I do Taekwondo and like to play the electric guitar. I got my inspiration for my project while watching a Youtube video on cloud chambers. When a large particle went through the cloud chamber the woman in the video explained that this was most likely radon. After asking my parents and doing some research I found that radon was a radioactive gas that causes cancer and accumulates in basements. I wondered what types of basements collected the most radon and decided I would find the answer. I built the cloud chamber and after testing I realized that it gave no real recordable measurement, so I made the radiation detector. It also is based on a device I had seen in a YouTube video, but I modified the design to make it more sensitive. In further investigations I would like to explore the impacts of different soil types and structures on the amount of radon accumulation in building foundations. Advice I would give to other students who are thinking about doing a project is to never give up even if you think the project is too advanced.

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