

## CWSF 2007 - Truro, Nova Scotia



### Simon Bild-Enkin

#### **Dissolving Buildings: The Effects of Acid Rain on Limestone Structures**

**Division:** Engineering & Computing Sciences / None

**Category:** Intermediate

**Region:** Vancouver Island

**City:** Victoria, BC

**School:** Esquimalt Community School

**Abstract:** Acid Rain dissolves our architectural heritage. Using hydrochloric acid as a proxy, I measured how limestone tiles dissolved depending on concentration and time of exposure, and measured the structural strength by dropping weights on the tiles. A protective coating resists the acid but cracks concentrate the damage leading to structural weakness. The real solution to acid rain is the reduction of sulfate and nitrate emissions.

#### Biography

Simon was born in Edinburgh, but has been living in Victoria, BC, most of his life. He is passionate about making music (sax, bass and guitar), and reading about history and science. He combines history and science in all his science fair projects. This is Simon's third project at the Canada Wide Science Fair, and he hopes to add many pins to his collection. Simon has been growing a rat tail for nine years, and will not cut it off.