

CWSF 2006 - Saguenay, Québec



Simon Bild-Enkin

Medieval Arches on Shifty Ground

Division: Health Sciences

Category: Intermediate

Region: Vancouver Island

City: Victoria, BC

School: Esquimalt Community School

Abstract: How do different arches react to differential settling of their foundations? I made three arches, Romanesque, Gothic, and Catenary, of styrofoam and moved their legs horizontally or vertically. The resulting deformations and collapses showed that the Catenary and Gothic are the most stable. The arches fell in specific patterns, and this knowledge will help structural engineers predict where arches will hinge, slide or twist.

Awards	Value
Honourable Mention - Engineering - Intermediate	\$100
Sponsor: Youth Science Foundation Canada	
Total	\$100