

CWSF 2010 - Peterborough, Ontario



Duncan Stothers

Packing Pyramids

Division: Life Sciences

Category: Junior

Region: Greater Vancouver

City: Vancouver, BC

School: St George's School

Abstract: This experiment developed and tested a new loose packing material made from biodegradable materials. The 'packing pyramids' were based on a tetrahedron and included a two-stage compression resistance design. Models were built to test gradual and sudden compression examining quantitative and qualitative effects. Packing pyramids outperformed common alternatives with less compression in both constant and sudden impact situations making them a consideration for future development.

Biography

I have four brothers in my family (we are two sets of twins). My brother Ben and I are the older set of twins, aged 12, and we are both coming to the Canada Wide Science Fair. My musical interests include playing the piano and the flute. My interests include computers, robotics and making stop motion animation films. Two of my animation movies have won film festival prizes. I love to build robotic machines. Sports that I enjoy include rugby, basketball, swimming and downhill skiing. My favorite runs on the ski hill are the black runs with lots of moguls!

Awards

Value

The University of Western Ontario Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: University of Western Ontario	\$2 000
Silver Medal - Engineering - Junior Sponsor: Youth Science Canada	\$700
Total	\$2 700