



## CWSF 2014 - Windsor, Ontario



## Biography

William found inspiration for creating Torsion Core "Plywood" in his previous project, "Nomadic Furniture," which demanded incorporation of a more light weight material. William took notice to designs such as hollow core doors and aircraft wings, which maintain chambered cores, while still retaining rigidity. As these designs utilized considerably less material than solid equivalents, William quickly recognized the potential for a more environmentally sustainable material. He decided to pursue the creation of his Torsion Core Material with environmentally sustainability as a main focus. His Torsion Core Material (TCM) samples demonstrated great efficiency and met (in some cases, exceeded) all industry standards for furniture construction materials. William hopes to pursue a patent for his material within the near future, and integrate into his future design work. When possible, he makes an effort to encourage younger students to each complete a science fair project, as he believes it leaves them with skills their academic and professional careers can benefit from. William attends Beamsville District Secondary School as a grade 11 student. He maintains a background in design, manufacturing, science, music, photography and animation.

## **William Preston**

**Torsion Core "Plywood"** 

Challenge:	Innovation
Category:	Senior
Region:	Niagara
City:	Vineland, ON
School:	Beamsville District S.S.
Abstract:	Torsion Core "Plywood" is an innovation in the realm of alternative
	materials. The project focuses on the development of a more
	environmentally sustainable material as an alternative to pressboard
	composites and veneer core plywoods currently used in production furniture
	manufacturing. Physical samples of Torsion Core Material (TCM) were
	constructed and evaluated against industry standards. Evaluation
	demonstrated that TCM is not only feasible, but highly marketable.

Awards	Value
Excellence Award - Senior - Silver Medal	\$300
Sponsor: Youth Science Canada	
Dalhousie University Faculty of Science Entrance Scholarship	\$2 500
Senior Silver Medallist - \$2500 Entrance Scholarship	
Sponsor: Dalhousie University, Faculty of Science	
UBC Science (Vancouver) Entrance Award	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: The University of British Columbia (Vancouver)	
University of Ottawa Entrance Scholarship	\$2 000
Senior Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: University of Ottawa	
Western University Scholarship	\$2 000
Silver Medallist - \$2000 Entrance Scholarship	
Sponsor: Western University	
Total	\$8 800



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