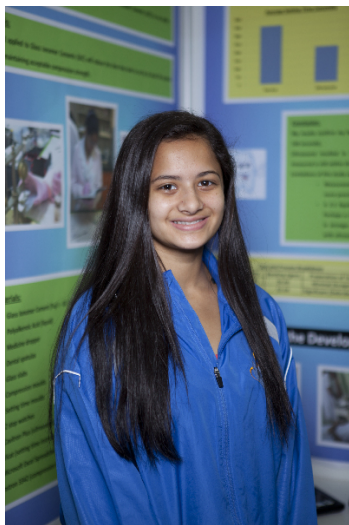


CWSF 2013 - Lethbridge, Alberta



Zoe Abraham

Improving Painless Fillings In The Developing World

Challenge: Health

Category: Intermediate

Region: Halifax

City: Hammonds Plains, NS

School: Bedford Academy

Abstract: Inexpensive Glass Ionomer Cements (GIC) are used in the developing world to treat cavities. They do not require "freezing" needles. GIC takes time to "set" so less people can be treated in a given time. My experiment assessed whether ultrasound can reduce GIC setting time while maintaining acceptable compression strength. Results show ultrasound reduced setting time by 140 seconds while maintaining acceptable compression strength.

Biography

My name is Zoe Maria Abraham; I am 14 years old and a Grade 9 student at Bedford Academy. I was born in Halifax, Nova Scotia where I grew up in a home that believes in strong family values and hard work. I love sports (competitive swimmer with the Sackville Waves Aquatic Team), school (particularly Science, English and Math) and music which is a huge part of my life. I have competed in and won voice competitions and play the piano and drums. I'm an independent worker and always strive to do my best. I strongly believe in giving back to the community around us and to those who are in need. I participate in the Sunday Suppers program for the homeless, do missionary work and community service with my Church youth group, and support World Vision with garage sales and other charity events. The inspiration from my project arose from my concern for the underprivileged particularly in developing countries as well as my interest in improving health in the world. My advice to students thinking about doing a Science Fair project would be to choose a topic for which you have a true passion.

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