



2016 NOBCChE National Science Fair Abstract

Category: **Physical Science**

Title: **Water Filtration using Fabrics**

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The purpose of my project is to determine which fabric is the most effective at filtering a dirty water solution. The dirty water is used to simulate water in third world countries, whose water filtration processes aren't as robust as America's. This type of filter can be beneficial to developing nations because it is a fairly simple process that involves only materials that are available in most parts of the world.

The fabrics used to filter the unclean water were Rayon, Cotton, Mesh, an Acrylic/Nylon blend, and a Polyester/Spandex blend. I expect the cotton fabric to be the best filtering fabric due to its thickness, absorbency, and its tight knit.

The National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE) National Science Fair is a poster competition in which students present an independent completed research project. Each contestant in the Science Fair must demonstrate their ability to conduct a research project by:

- Submitting an abstract of 150 words or less on an individual research project in one of the following **four categories: physical science, math & engineering, consumer science, or biological science.**
- Presenting the results of the research in a poster format, including answering questions from judges; and submitting a written report during the poster presentation.
- For more information, visit www.nobccheSTEMwkd.com.