CWSF 2013 - Lethbridge, Alberta

Meagan Van Drunen

Air Vortex Machine

Challenge: Discovery
Category: Junior
Region: Northern Manitoba
City: Thompson, MB
School: Westwood School

Abstract: The objective of the project is to prove that air has mass. Using larger and larger volumes of air, I can demonstrate how air can move objects. Using different outlet sizes, I can also adjust the force needed to move objects by changing the pressure. I can then conclude that air has sufficient mass to move objects and can be used as an industrial tool.

Biography

Hi my name is Meagan Van Drunen, I am president of the Student Action Leadership Team at my school, Westwood elementary school. I love to go camping with my family, skating and swimming. When you hear the words air vortex machine what do you think? Many would say that they think its a crazy machine that blows wind, but really its a device that pushes out a vortex ring. That is my project and my inspiration for it: my dad. my dad is a Mines Manager and he always tells my sister and I little tid-bits of cool stuff that is at the mine. One day he told me about the mining air cannons that they use to blast down ore hang-ups, I looked up some information on the internet and I was curious as to how the air vortex worked. I made it my goal to not only discover how it worked but also to demonstrate it. I plan to try and create more practical uses and translate real world information into mathematics. I would advise students to find a mentor early on in the project.