

## CWSF 2013 - Lethbridge, Alberta



### Max Johnson

#### Heated Header-Aches

**Challenge:** Discovery

**Category:** Intermediate

**Region:** Greater Vancouver

**City:** Vancouver, BC

**School:** Prince of Wales Secondary

**Abstract:** Concussions are a quickly growing problem in modern day sports. This experiment investigated the potential concussive properties of a soccer header due to the change of temperatures. I concluded that due to the reduction of air pressure and the lowered coefficient of restitution, soccer balls exposed to lower temperatures possess more concussive potential during a header, especially for teens ages 15-19.

#### Biography

Science fair has been a really great experience for me. My project, about concussions and head injuries that can be caused by a soccer header at varying temperature ranges, was inspired by my own experiences playing soccer. I would like to further investigate the possibility of creating soccer balls that create a safer environment for the players. I attend Prince of Wales Mini School and a few of my main interests are soccer, baseball and piano. For other student thinking about doing a project, I would recommend doing something you are interested in. That makes Science Fair a much greater experience.