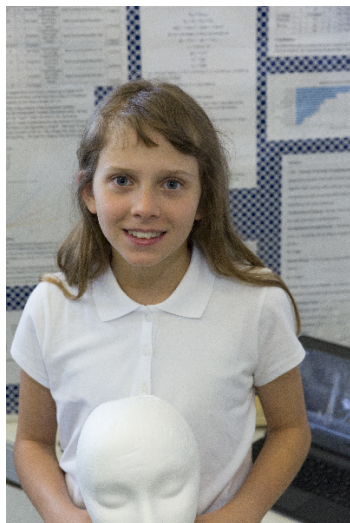


CWSF 2018 - Ottawa, Ontario



Kaylyn Wilkinson

Is Oobleck an Effective Material to Reduce the Impact on Helmets?

Challenge: Innovation

Category: Junior

Region: Simcoe County

City: Thornton, ON

School: Cookstown P.S.

Abstract: My project is an experimental way to try and prevent concussions using "oobleck". Four experiments were performed on a normal hockey helmet, show how your skull and brain are affected by a collision to the head. The experiments show how your "brain" is affected with 3 different padding-types (and no padding) on, and in, the helmet, with different forces. "Oobleck" is one of the padding-types.

Biography

I am an avid reader who loves to sing and play guitar, piano, and trombone. I am empathetic and have won numerous Character awards at my school. I play baseball, love to swim, and run cross-country. I have two cats and love animals. When I grow up, I want to be a veterinarian. I thought of doing my project on reducing the seriousness of concussions when a family friend received a concussion which pretty much erased his school year with all the issues that happened to him. My mom's friend got a concussion while water-skiing and she was off work for a long time. I saw a Toronto Maple Leafs ? Philadelphia Flyers hockey game where they were recognizing the efforts, and retiring the number, of Eric Lindros. I asked my Dad what happened to him and he told me that Eric suffered many concussions from hits to the head. I used "oobleck" as a padding inside, and outside, of a hockey helmet to see if it reduces the force of impact to the head. One future investigation is to design an actual helmet for game use. My advice for others: Do a project that is personal to you.

Awards

Value

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|---|---------|
| Excellence Award - Junior - Silver Medal Sponsor: Youth Science Canada | |
| Western University Scholarship Silver Medallist - \$2000 Entrance Scholarship Sponsor: Western University | \$2 000 |
| Total | \$2 000 |