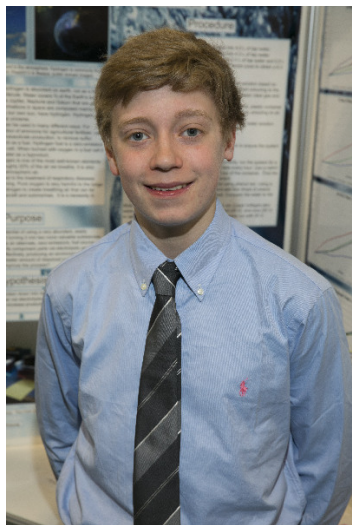


## CWSF 2017 - Regina, Saskatchewan



### Dakota Ruel

#### Separation of H<sub>2</sub>O to Pure Hydrogen & Oxygen

**Challenge:** Environment

**Category:** Junior

**Region:** Northern British Columbia

**City:** Pouce Coupe, BC

**School:** Dawson Creek Secondary - Central Campus

**Abstract:** There is a growing push toward greater environmental sustainability worldwide. This project examines the potential of using a very abundant, easily accessible, natural resource (water) and turning it into two more valuable substances, one of which that can be used as an alternate, zero emissions, fuel source. Can water be broken down into its component parts via electrolysis using low-cost materials and less power effectively?

#### Biography

My Name is Dakota I am 14 years old and love school. I am very interested in speed skating. I have gone to nationals and provincials 3 times I also have been skating for 3 years. When I get a job I want to be a mechanical engineer, I plan on going to university for 6 years after high school. I have traveled to Australia, Germany, Mexico, USA and many different places in Canada. When I was in grade 6 I had this idea for a science project but I didn't have enough time after a holiday to do the project / experiment. This year when I found out that there was a science fair I picked this experiment. I really liked the aspect of dealing with chemicals and elements from the periodic table. I would probably try to maybe pursue the hydrogen fuel part of the experiment. If you were to do a experiment for the science fair make it something with science related or to benefit society or the community.