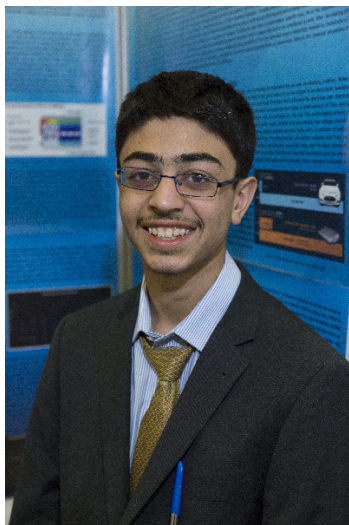


## CWSF 2018 - Ottawa, Ontario



### Ali Rizvi

#### Investigating Aqueous Solution Electrolytes

**Challenge:** Energy

**Category:** Intermediate

**Region:** Southeast Saskatchewan

**City:** Moosomin, SK

**School:** McNaughton H.S.

**Abstract:** The purpose of this project is to create an effective, non-flammable, and environmentally friendly lithium-ion battery. My idea is to replace organic battery electrolytes currently used in lithium-ion batteries with an aqueous solution that lowers explosion risk and is more capable than modern batteries. These water-electrolyte batteries are excellent candidates to use in electric vehicles due to being non-flammable and having a low manufacturing cost.

#### Biography

My name is Ali Rizvi and I am a grade 9 student from Moosomin, Saskatchewan. I attend McNaughton High School and am actively involved in a variety of activities within the school, including soccer, basketball, badminton, and track & field. I also hold a 2nd Dan black belt in taekwondo and have won many awards in various math competitions. I was inspired to do my project after reading an article about how an electric car battery exploded after a crash. My goal was to create a battery that was non-flammable, low cost, environmentally friendly, and effective. For any students that wish to pursue a science project, my advice would be to choose a topic that you are passionate about, and examine all aspects of the problem in depth before devising a solution.