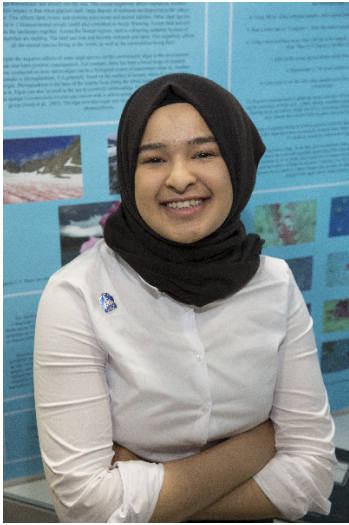


## CWSF 2019 - Fredericton, New Brunswick



### Sidra Ahmed

#### Snow: The Purest of Impurities

**Challenge:** Discovery

**Category:** Senior

**Region:** Southeast Alberta

**City:** Medicine Hat, AB

**School:** Medicine Hat High School

**Abstract:** This project showed that bacterial spores and algae are present in snow and can be recovered and cultured in the laboratory. I speculated that both could function as ice nucleation sites and tested it using a freezing water bath and timing the freezing of water droplets. I found that some but not all of the algae cultures could ice nucleate but not the bacterial spores.

#### Biography

I am a student at Medicine Hat High School in Grade 11 and I became interested in doing a Science Fair project last year because I had competed at lower levels and wanted to do something more advanced. I am in a drama production and several clubs at school and I work part-time so I didn't have enough time to finish the project last year but I came back to the lab this year and have been working on it since November. Progress was slow because there was no snow at the beginning of winter and algae take weeks to grow when the starting inoculum is low. I will graduate next year and hope to enter a science program at the University of Alberta. I expect to do another project next year in my final year of high school.

Youth Science Canada  
PO Box 297  
Pickering ON L1V 2R4  
[www.youthscience.ca](http://www.youthscience.ca) / [info@youthscience.ca](mailto:info@youthscience.ca)  
416-341-0040