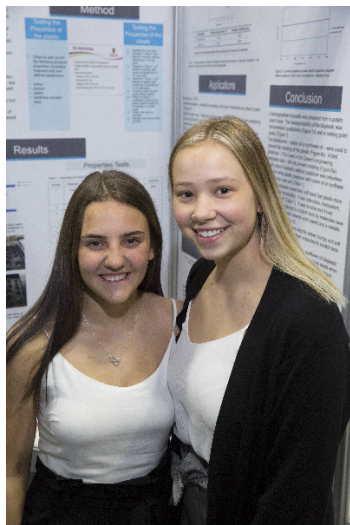


CWSF 2019 - Fredericton, New Brunswick



Hannah MacAusland, Hana Haytaoglu

Preparation, Property Testing, and Applications of Bioplastic

Challenge: Innovation

Category: Intermediate

Region: Peterborough

City: Brighton , ON, Trenton , ON

School: East Northumberland S.S.

Abstract: Fossil fuel plastics are polluting our landfills and oceans. As a replacement to fossil fuel plastics, we engineered biodegradable plastics made from potato starch. We studied the properties of our plastics, including thermal properties, effects on plant growth, hardness, clarity, and flexibility. Based on these properties, our plastic could be used for mulch, food preservation, fast food wrappers, and straws.

Biographies

Hannah - My name is Hannah MacAusland and I'm a grade 10 student at ENSS in Brighton. I played hockey on a competitive team for 7 years and now I am a cash manager at No Frills. In the future I would like to either pursue this project into a business, or become a speech therapist for kids. In the future I also hope to travel the world to scuba dive. During my project my partner and I have been fortunate enough to work with two universities. We got to tour the Queens bioplastics lab, as well as test our plastic on their machines. We have also been in touch with UNC and have been invited to work with them to look further into the effects our plastic w...

Hana - My name is Hana and I'm a gr.10 student at ENSS in Brighton. I've been a competitive gymnast and cheerleader for the last 10 year, and now I coach gymnastics myself. In the future I want to either pursue this project into a business, or become an astronaut. I hope to go on an exchange for my grade 12 year to either Asia or Norway. During my project my partner and I have have been fortunate enough to work with two universities. We got to tour the Queens bioplastics lab, as well as test our plastic on their machines. We have also been in touch with UNC and have been invited to work with them in their effects of plastics on animals lab. Our futu...

Awards

Value

Excellence Award - Intermediate - Bronze Medal Sponsor: Youth Science Canada	
Western University Scholarship Bronze Medallist - \$1000 Entrance Scholarship Sponsor: Western University	\$1 000
Total	\$1 000