

# 2018 Divisional Award Winners

## Junior - Biotechnology

### Silver Medallion (\$40 cash)

(003BTJ) Predictive Medicine Using Machine Learning  
Student: Nadeem Hassan  
School: Centennial P.S.

## Intermediate - Biotechnology

### Gold Medallion (\$100 cash)

(009BTI) A System for Detecting and Removing Ag Pollutants  
Student: Adam Martinez  
School: Waterloo C.I.

(025BTI) Nematocyst Delivery of DNA to Tardigrades  
Student: Sasha Seufert  
School: Centennial C. & V.I.

## Senior - Biotechnology

### Gold Medallion (\$100 cash)

(017BTS) A Biomimetic Microfluidic Hemodialysis Device  
Student: Connie Cheng  
School: Sir John A. Macdonald S.S.

(043BTS) A Novel Workflow for Gene Carrier Design  
Student: Sajeev Kohli  
School: Sir John A. Macdonald S.S.

## Junior - Engineering

### Pewter Medallion

(098ESJ) Propelling Propellers  
Students: Tyseer Toufiq , Nathan Shao  
School: Centennial P.S.

(082ESJ) HOW MANY BARS DO YOU HAVE  
Student: Evan Marchetti  
School: Hespeler P.S.

(116ESJ) The L.E.D Jacket  
Students: Andrei Ciorgariu , Mathew Ernst  
School: St. Agnes C.S.

(056ESJ) Sticky Sponge Pipe  
Student: Raabiah Alarakhia  
School: MAC Maple Grove School

### Bronze Medallion (\$30 cash)

(022ESJ) Get A Grip  
Student: Maddy Brown  
School: Hespeler P.S.

(188ESJ) Up on the housetop  
Students: Nolan Hutton , Spencer Seiling  
School: Centennial P.S.

(168ESJ) Why Snowboards Are So Expensive?  
Students: Ben Uttley , Tanner McDonald  
School: Northlake Woods P.S.

(166ESJ) Wasting Away  
Students: Julia Kenzap , Paige Gugeler  
School: Centennial P.S.

(062ESJ) The Healing Hat 2.0  
Student: Clarissa Chamberlain  
School: K.W. Bilingual School

(086ESJ) The Dangers of Devices  
Student: Maryam Alarakhia  
School: MAC Maple Grove School

**Silver Medallion (\$40 cash)**

(122ESJ) Fire Rescue and Escape Device (F.R.E.D.)  
 Students: Richard Wang , Jason Ling  
 School: Centennial P.S.

(170ESJ) Aerodynamics in Buildings  
 Student: Athan Juritsch  
 School: Centennial P.S. - Congregated Class

(146ESJ) Designing a refugee shelter  
 Student: Amira Bashbishi  
 School: Centennial P.S. - Congregated Class

**Gold Medallion (\$70 cash)**

(050ESJ) iCane 2.0: Alternative to Tactile Paving for Blind  
 Student: Neil Mitra  
 School: Centennial P.S.

**Intermediate - Engineering****Bronze Medallion (\$40 cash)**

(110ESI) House of Garbage  
 Student: Julia Nicolaisen  
 School: Waterloo C.I.

**Silver Medallion (\$60 cash)**

(036ESI) A 'Hand'y Connection  
 Student: Sophia Mourcos  
 School: Pere-Rene-de-Galinee High School

**Gold Medallion (\$100 cash)**

(034ESI) Multi-Intersection Traffic Optimization with ANNs  
 Students: Adeeb Mahmud , Daniel Yu  
 School: Waterloo C.I.

(090ESI) Tracking Bird Migration: A Novel Approach  
 Student: Hadi Almalki  
 School: Sir John A. Macdonald S.S.

(154ESI) MouthWatch  
 Students: Patrick Ibrahim , Cyril Fayek  
 School: Pere-Rene-de-Galinee High School

**Senior - Engineering****Pewter Medallion**

(127ESS) SPOKN  
 Students: Sabastian Peters , Karthik Nambiar  
 School: Jacob Hespeler S.S.

**Bronze Medallion (\$40 cash)**

(164ESS) Electronic Ice Bag  
 Students: Jiahua Shang , Erping Zhang  
 School: Waterloo C.I.

**Silver Medallion (\$60 cash)**

(040ESS) Simulated Annealing for Rescue Response  
 Student: Sam Orend  
 School: Cameron Heights C.I.

**Gold Medallion (\$100 cash)**

(066ESS) LITBIT- A Novel Alerting Device for the Deaf  
 Student: Ayla Orucevic  
 School: Individual Entry

(094ESS) Weed Removal Robot

Student: Michael Li  
 School: Individual Entry

**Junior - Life Science****Pewter Medallion**

(121LSJ) Music "Notes"  
 Students: Evelyne Jewitt-Dyck , Faith Neumann  
 School: Linwood District P.S.

(048LSJ) Long Live The Flowers  
Student: Matthew Berruti  
School: St. Francis of Assisi

(140LSJ) Time's Up!  
Students: Jasmine Moroz , Mya Vincentini  
School: St. Ignatius of Loyola C.E.S.

(148LSJ) Musical Concentration  
Student: Andreas Diogenous  
School: Wm. G. Davis P.S. - Congregated Class

(106LSJ) Which Fertilizer is most efficient?  
Students: Johanna Dyck Steinmann , Lauren Stanton  
School: Rockway Mennonite Collegiate

(038LSJ) Compete SMARTER  
Student: Issay Tieu  
School: Wm. G. Davis P.S. - Congregated Class

(092LSJ) Ocular Dominance  
Students: Michael McPhee , William McIntyre  
School: Centennial P.S.

(162LSJ) The Stroop Effect: Who Will React the Quickest?  
Student: Ayesha Saleem  
School: International School Of Cambridge

(014LSJ) Are Fingerprint Patterns Inherited?  
Student: Hasan Rashid  
School: MAC Maple Grove School

**Bronze Medallion (\$30 cash)**

(016LSJ) 5 Second Rule  
Student: Rameen Faisal Ansari  
School: Hespeler P.S.

(060LSJ) The Science of Plant Murder  
Student: Bryan Clausi  
School: Centennial P.S.

(002LSJ) Who's the Smart One Now?  
Students: Grace Stocker , Maja Zylkowski  
School: St. Ignatius of Loyola C.E.S.

(078LSJ) Infectious Diseases  
Student: Victoria ZhangLiu  
School: Centennial P.S. - Congregated Class

(042LSJ) Front Foot versus Back Foot Hockey Shots  
Student: Aedan Girard  
School: Centennial P.S.

(114LSJ) Mild Medium Old, Which Will Mold  
Students: Eryn Lacsamana , Paige Amiro  
School: St. Francis of Assisi

(004LSJ) What is Growing on Your Phone?  
Student: Ava Hupel  
School: St. John's-Kilmarnock School

(130LSJ) All for One or One for All  
Students: Jessica Li , Sophia Murphy  
School: K.W. Bilingual School

(112LSJ) The Power of Self-Talk  
Student: Alex Rus  
School: Centennial P.S.

(052LSJ) Face The Facts  
Students: Smitty van Bodegom , Patty Schmidt  
School: Wm. G. Davis P.S. - Congregated Class

(006LSJ) A Good Night's Rest for a Test  
Student: Nadia Anwar  
School: Wm. G. Davis P.S. - Congregated Class

(008LSJ) Should I Stay or Should I Go?  
Student: Andy Reist  
School: Centennial P.S.

**Silver Medallion (\$40 cash)**

(012LSJ) Conformity  
Students: Tori Clemens , Laura Weiler  
School: Centennial P.S. - Congregated Class

(064LSJ) Stop! Talk to us.  
Students: Carmen Yang , Audrey Guo  
School: Centennial P.S. - Congregated Class

(186LSJ) The Dirt on Worms  
Student: Miranda Davison  
School: Individual Entry

(039LSJ) Phototropism in Bean Sprouts  
Student: Ula Korsak  
School: Lester B. Pearson P.S.

(046LSJ) A Pigment of Your Imagination  
Students: Olivia Desroches , Celeste Eliasmith  
School: Centennial P.S. - Congregated Class

(030LSJ) Silence Is Golden  
Student: Rachel Beda  
School: Cambridge Christian School

(118LSJ) Remember What You've RED  
Student: Emily Lilley  
School: Wm. G. Davis P.S. - Congregated Class

(178LSJ) Does Colour Affect Perception?  
Student: Quinn Hearnden  
School: Wm. G. Davis P.S. - Congregated Class

(080LSJ) Believe It When You See It  
Students: Natalie Strilchuk , Abigail Sider  
School: Wm. G. Davis P.S. - Congregated Class

(150LSJ) !!Kihap!!  
Students: Prem Mehta-Spooner , Victor Zhan  
School: Centennial P.S.

(172LSJ) Social Media Safety  
Students: Elle Cumming , Sarah Bateman  
School: Northlake Woods P.S.

(124LSJ) The Wonder of Antioxidants  
Students: Leena Alorbani , Eimaan Ahmad  
School: MAC Maple Grove School

(152LSJ) Ripening Ramifications  
Student: Caleb Schiedel  
School: St. John's-Kilmarnock School

**Gold Medallion (\$70 cash)**

(138LSJ) Unequal Pay the Monkey Pay  
Student: Mary Clifford  
School: Hespeler P.S.

(190LSJ) A Crude Awakening  
Student: Rachael Sun  
School: Centennial P.S. - Congregated Class

(132LSJ) Turn Down The Volume !  
Students: Guo Chen , Rosy Buttar  
School: Centennial P.S.

(072LSJ) Bean There, Drank That  
Student: Maegan Taylor  
School: Individual Entry

(180LSJ) "On the Road Again"  
Students: Isabella McPherson , Hilary Huth  
School: Centennial P.S.

## Intermediate - Life Science

### Pewter Medallion

(068LSI) Will You Remember Me  
Student: Abigayle Dyksterhuis  
School: St. John's-Kilmarnock School

### Silver Medallion (\$60 cash)

(142LSI) Fake News Fiasco  
Students: Luiza Aguilar , Hima Sheth  
School: Sir John A. Macdonald S.S.

(108LSI) Exposing Probiotics  
Student: Kevin Hu  
School: Sir John A. Macdonald S.S.

### Gold Medallion (\$100 cash)

(070LSI) The Impact of Yoga on Global Cardiovascular Risk  
Student: Ashok Pandey  
School: Waterloo C.I.

## Senior - Life Science

### Silver Medallion (\$60 cash)

(156LSS) Humans or Nature: Who makes the Better Cure?  
Students: Hammad Ahmed , Saman Rashid  
School: Cameron Heights C.I.

### Gold Medallion (\$100 cash)

(045LSS) Biofilm Degradation  
Student: Sadia Khan  
School: Cameron Heights C.I.

(128LSS) The Ocean: Not a Rock Concert  
Student: Angela Zhang  
School: Sir John A. Macdonald S.S.

## Junior - Physical and Mathematical Science

### Pewter Medallion

(153PSJ) Veggie Volts  
Students: Emily Koiter , Ellie Sparks  
School: Hespeler P.S.

(033PSJ) Soak It Up!  
Students: Brooklyn Synnott , Karleigh Daw  
School: St. Francis of Assisi

(021PSJ) The Big Burp Theory  
Student: Luc Gignac  
School: St. Ignatius of Loyola C.E.S.

(049PSJ) The Speed Of Egg  
Student: Adam Angerilli  
School: St. Ignatius of Loyola C.E.S.

(151PSJ) Naturally Clean  
Students: Mason Berruti , Aidan Doucette  
School: St. Francis of Assisi

(175PSJ) Purple Produce!  
Students: Anja Kane , Aleah Da Silva  
School: St. Francis of Assisi

(125PSJ) Which Material Insulates Heat Best  
Student: Ruby Dyck Steinmann  
School: Rockway Mennonite Collegiate

(079PSJ) Fingerprints  
Student: Kate Sommer  
School: Cambridge Christian School

(179PSJ) Paper Towel Absorbency Test  
Student: Georgina Budzynski  
School: Rockway Mennonite Collegiate

(071PSJ) Colour by Language  
Student: Jacinta Shrishankar  
School: Wm. G. Davis P.S. - Congregated Class

(047PSJ) Designing Durability  
Student: Olivia Hirsch  
School: Rockway Mennonite Collegiate

(139PSJ) Which Fruit has the most Vitamin C?  
Student: Mahad Chaudhry  
School: MAC Maple Grove School

**Bronze Medallion (\$30 cash)**

(185PSJ) Make your Knowledge Less Foggy  
Students: Rachel Spanglet , Charis Ho  
School: K.W. Bilingual School

(093PSJ) What is Your Exposure to Cell Phone Radiation?  
Student: Yashvi Juneja  
School: K.W. Bilingual School

(053PSJ) Got Acid?  
Student: Abby Wilson  
School: Hespeler P.S.

(183PSJ) Science of the Bounce by: Thomas. C and Logan. A  
Students: Logan Apfelbeck , Thomas Cottam  
School: Hespeler P.S.

(067PSJ) Ready, Set, Glow!  
Student: Eliana Wallace  
School: Hespeler P.S.

(115PSJ) The Skinny on Moisturizers  
Student: Claire Cheng  
School: Hespeler P.S.

(117PSJ) Strength Of Wood Glue  
Student: Scott Brackpool  
School: Centennial P.S.

(083PSJ) Dabbled With An Apple  
Students: Olivia Jaszczur , Gella Mae Ordanza  
School: St. Francis of Assisi

(051PSJ) Eggpertly Boiled Eggs  
Student: Sydney Sanscartier  
School: Rockway Mennonite Collegiate

(041PSJ) The Cold Never Bothered Me Anyway  
Students: Anika Hudali , Jessica Poon  
School: Wm. G. Davis P.S. - Congregated Class

(011PSJ) Bundle Up Right  
Students: Madison Mercier , Carys Martin  
School: Wm. G. Davis P.S. - Congregated Class, Wm. G. Davis P.S.

(081PSJ) Oil vs The Cleaning Agents  
Student: Joellah Fletcher  
School: Rockway Mennonite Collegiate

(149PSJ) Flaming Foliage  
Students: Ibrahim Raja , Omer Hafeez  
School: MAC Maple Grove School

**Silver Medallion (\$40 cash)**

(163PSJ) Got Rust?  
Student: Gabe Cardoso  
School: Hespeler P.S.

(077PSJ) GET LIT!  
Student: Jacob Bakker  
School: K.W. Bilingual School

(133PSJ) A ReNEWable Energy Source: Water  
Student: David Gou  
School: Centennial P.S. - Congregated Class

(029PSJ) Deicing the Drive  
Students: Jessica Diao , Alina Armbruster  
School: Centennial P.S. - Congregated Class

(143PSJ) Sweet Sugar Substitutes  
Students: Ledina Hasanagic , Alex Puncher  
School: Centennial P.S.

(035PSJ) Squeaky Clean yet No Hygiene  
Students: Kenisha Martinez-Fuller , Elitza Nikolova  
School: Hespeler P.S.

(087PSJ) Protein Blast  
Student: Jannah Saad  
School: St. John's-Kilmarnock School

(137PSJ) Fun With Fractals  
Student: Aidan Carmody  
School: Centennial P.S. - Congregated Class

(177PSJ) The Core of the Matter  
Student: Leonardo Pellegrino  
School: St. John's-Kilmarnock School

(113PSJ) Do Not Trust Your Computer  
Student: Sasha Krivodonova  
School: Centennial P.S. - Congregated Class

(159PSJ) You Can't B.Cereus  
Students: Luca Ghizzardi , Sam Duffy  
School: St. Ignatius of Loyola C.E.S.

(005PSJ) Graffiti Removal  
Students: Maria Lamghari , Ayah Elmallah  
School: MAC Maple Grove School

**Gold Medallion (\$70 cash)**

(023PSJ) Follow The Light  
Student: Sicheng Scott Hao  
School: K.W. Bilingual School

(027PSJ) The Ice Terminator  
Student: Leya Oommen  
School: K.W. Bilingual School

(107PSJ) Who Did It?  
Student: Olivia Howse  
School: St. Ignatius of Loyola C.E.S.

(109PSJ) Go Green or No Green  
Student: Holden Ford  
School: Centennial P.S. - Congregated Class

(075PSJ) Killing Pain:Effect of pH on Tablet Disintegration  
Student: Nischal Ghookal  
School: Centennial P.S.

(055PSJ) Lighting Best For Work  
Student: Brendan Wong  
School: Centennial P.S. - Congregated Class

(007PSJ) True Colours  
Students: Poorvi Jain , Justina He  
School: MacGregor P.S.

(085PSJ) Spherification Complications  
Student: Audrey Van Delst  
School: Wm. G. Davis P.S. - Congregated Class

(019PSJ) The Static Is Real  
Students: Brooke Rigby , Desiree Yhap  
School: Wm. G. Davis P.S. - Congregated Class

(181PSJ) Germ Busters: Soaps VS Hand Sanitizer  
Students: Ayse Nur Fidan , Aiman Ahmed  
School: MAC Maple Grove School

## **Intermediate - Physical and Mathematical Science**

### **Silver Medallion (\$60 cash)**

(141PSI) Increased Voltage in Electrolysis?!  
Student: Sophia Gryshchenko  
School: Waterloo C.I.

## **Senior - Physical and Mathematical Science**

### **Pewter Medallion**

(057PSS) Exploring Surface Water  
Students: Asia Masengesho , Saira Khalid  
School: Galt Collegiate Institute & Vocational School

### **Gold Medallion (\$100 cash)**

(031PSS) A New Approach to Predicting Protein Binding Sites  
Student: Advait Maybhate  
School: Sir John A. Macdonald S.S.

(135PSS) The Agricultural Future of Canada  
Student: Daniel Cheriyan  
School: Waterloo C.I.

(131PSS) WaveFire: Preventing Adversarial Audio Attacks  
Student: Zachary Trefler  
School: Waterloo C.I.

## **Best in Division - Biotechnology**

### **Plaque**

(009BTI) A System for Detecting and Removing Ag Pollutants  
Student: Adam Martinez  
School: Waterloo C.I.

(043BTS) A Novel Workflow for Gene Carrier Design  
Student: Sajeev Kohli  
School: Sir John A. Macdonald S.S.

## **Best in Division - Engineering**

### **Plaque**

(090ESI) Tracking Bird Migration: A Novel Approach  
Student: Hadi Almalki  
School: Sir John A. Macdonald S.S.

## **Best in Division - Life Science**

### **Plaque**

(128LSS) The Ocean: Not a Rock Concert  
Student: Angela Zhang  
School: Sir John A. Macdonald S.S.



## **Best in Division - Physical and Mathematical Science**

### **Plaque**

(131PSS) WaveFire: Preventing Adversarial Audio Attacks  
Student: Zachary Trefler  
School: Waterloo C.I.

## **2018 Special Award Winners**

### **Stephen J. Little Award for Science Presentation**

#### **Trophy and Chapters Gift Card**

(142LSI) Fake News Fiasco  
Students: Luiza Aguilar , Hima Sheth  
School: Sir John A. Macdonald S.S.

### **Best Written Reports**

#### **Junior - Trophy**

(093PSJ) What is Your Exposure to Cell Phone Radiation?  
Student: Yashvi Juneja  
School: K.W. Bilingual School

(077PSJ) GET LIT!  
Student: Jacob Bakker  
School: K.W. Bilingual School

(012LSJ) Conformity  
Students: Tori Clemens , Laura Weiler  
School: Centennial P.S. - Congregated Class

(060LSJ) The Science of Plant Murder  
Student: Bryan Clausi  
School: Centennial P.S.

(078LSJ) Infectious Diseases  
Student: Victoria ZhangLiu  
School: Centennial P.S. - Congregated Class

#### **Intermediate - Trophy**

(090ESI) Tracking Bird Migration: A Novel Approach  
Student: Hadi Almalki  
School: Sir John A. Macdonald S.S.

#### **Senior - Trophy**

(017BTS) A Biomimetic Microfluidic Hemodialysis Device  
Student: Connie Cheng  
School: Sir John A. Macdonald S.S.

### **Sir Isaac Newton Award - Junior**

#### **Chapters Gift Certificate**

(109PSJ) Go Green or No Green  
Student: Holden Ford  
School: Centennial P.S. - Congregated Class

### **Sir Isaac Newton Award - Intermediate**

#### **Chapters Gift Certificate**

(141PSI) Increased Voltage in Electrolysis?!  
Student: Sophia Gryshchenko  
School: Waterloo C.I.

### **Sir Isaac Newton Award - Senior**

#### **Chapters Gift Certificate**

(131PSS) WaveFire: Preventing Adversarial Audio Attacks  
Student: Zachary Trefler  
School: Waterloo C.I.

## Chem 13 Award

**One year subscription to Scientific American or another scientific journal deemed suitable for the level of the recipient.**

(085PSJ) Spherification Complications

Student: Audrey Van Delst

School: Wm. G. Davis P.S. - Congregated Class

## 2018 Other Award Winners

### Shad Scholarships

**Scholarship to attend Shad Valley (\$500 scholarship)**

(034ESI) Multi-Intersection Traffic Optimization with ANNs

Students: Adeeb Mahmud , Daniel Yu

School: Waterloo C.I.

(009BTI) A System for Detecting and Removing Ag Pollutants

Student: Adam Martinez

School: Waterloo C.I.

(090ESI) Tracking Bird Migration: A Novel Approach

Student: Hadi Almalki

School: Sir John A. Macdonald S.S.

(025BTI) Nematocyst Delivery of DNA to Tardigrades

Student: Sasha Seufert

School: Centennial C. & V.I.

(154ESI) MouthWatch

Students: Patrick Ibrahim , Cyril Fayek

School: Pere-Rene-de-Galinee High School

(070LSI) The Impact of Yoga on Global Cardiovascular Risk

Student: Ashok Pandey School: Waterloo C.I.

## Stepping Stone Award

### Trophy

(050ESJ) iCane 2.0: Alternative to Tactile Paving for Blind

Student: Neil Mitra

School: Centennial P.S.

(107PSJ) Who Did It?

Student: Olivia Howse

School: St. Ignatius of Loyola C.E.S.

(180LSJ) "On the Road Again"

Students: Isabella McPherson , Hilary Huth

School: Centennial P.S.

(085PSJ) Spherification Complications

Student: Audrey Van Delst

School: Wm. G. Davis P.S. - Congregated Class

## 2018 Grand Award Winners

### Award of Merit

#### All expense paid trip to the Canada-Wide Science Fair

(009BTI) A System for Detecting and Removing Ag Pollutants

Student: Adam Martinez

School: Waterloo C.I.

(109PSJ) Go Green or No Green

Student: Holden Ford

School: Centennial P.S. - Congregated Class

(031PSS) A New Approach to Predicting Protein Binding Sites

Student: Advait Maybhate

School: Sir John A. Macdonald S.S.

(017BTS) A Biomimetic Microfluidic Hemodialysis Device

Student: Connie Cheng

School: Sir John A. Macdonald S.S.

(128LSS) The Ocean: Not a Rock Concert

Student: Angela Zhang

School: Sir John A. Macdonald S.S.

(090ESI) Tracking Bird Migration: A Novel Approach

Student: Hadi Almalki

School: Sir John A. Macdonald S.S.

(025BTI) Nematocyst Delivery of DNA to Tardigrades

Student: Sasha Seufert

School: Centennial C. & V.I.

(131PSS) WaveFire: Preventing Adversarial Audio Attacks

Student: Zachary Trefler

School: Waterloo C.I.

(070LSI) The Impact of Yoga on Global Cardiovascular Risk

Student: Ashok Pandey

School: Waterloo C.I.

### The Award of Excellence

#### Cash, Certificate, Medallion and Admission Scholarship to University of Ottawa (\$250 cash / \$1000 scholarship)

(009BTI) A System for Detecting and Removing Ag Pollutants

Student: Adam Martinez

School: Waterloo C.I.