

2014 Minnesota State Science & Engineering Fair Student Award Winners

Sponsor	Award	Amount	Winner(s)	Project Title	School, City
3M Foundation	3M Innovation Award 3rd Place Middle School	\$500.00	Ben Chrepta	Improving and Testing Robotic Arm Kinesthetics with the use of Processing, Kinect, and Arduino	Friedell Middle School, Rochester
3M Foundation	3M Innovation Award 2nd Place Middle School	\$750.00	Steven Franklin	Audio Game: Adapted Video Game for the Visually Impaired	Oak Land Junior High, Lake Elmo
3M Foundation	3M Innovation Award 1st Place Middle School	\$1,000.00	Pujan Patel	The Effectiveness of Regenerative Shock Absorbers against Fuel Economy and Carbon Dioxide Emissions	Friedell Middle School, Rochester
3M Foundation	3M Innovation Award 3rd Place High School	\$500.00	Ishaan Govindarajan	The "Sense-ational" Sock- Developing a Sensory Sock for Patients with Peripheral Neuropathy	Century High School, Rochester
3M Foundation	3M Innovation Award 2nd Place High School	\$750.00	Jonah Butler	Employing In Situ Generated Peracetic Acid And Fungal Biosynthesis To Produce Biofuels	Sibley East High School, Glencoe
3M Foundation	3M Innovation Award 1st Place High School	\$1,000.00	Easton McChesney & Wolfgang Ofstedal	Protecting Streams, Lakes, and Rivers: Engineering a Breakthrough Filter to Remove Phosphates from Stormwater Runoff	Breck School, Minneapolis, Plymouth
Acoustical Society of America	Excellence in Acoustics Award	\$100.00	Anna St. Peter & Hali Soukup	Moving Objects with Sound	St. Marys School, Sleepy Eye, Sleepy Eye
American Association for Clinical Chemistry	American Association for Clinical Chemistry Award	\$100.00	Matthew Dietz	The Effect of Cell Density and Growth Supplements on Mesenchymal Stem Cell Attachment and Growth on an Artificial Matrix	Chatfield High School, Chatfield
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Justin Friedrich	Cardiovascular Conditioning Related to Activity	Chatfield High School, Chatfield

American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Tim Renier	Hand Hygiene Gone Viral? A Study of Student Involvement in a Social Media Campaign as a Method of Bringing Hand Hygiene to the Masses	Duluth East High School, Duluth
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Jason Sylvestre	VoltX 2.0, A Rescue Robot That Can Locate and Extract Victims	Benilde-St. Margaret's, Eden Prairie
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Elias Garar & Hudeyfa Farah	Effect of Frequency of Visual Subliminal Stimuli Masked in Videos on Attainment of Information	Al-Amal School, Minneapolis
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Brian Prchal	The Effects of Applying Wastewater Biosolids on Bio Energy Polyculture Test Plots and Various Varieties of Switchgrass- A Two Part Study	New Prague High School, Montgomery
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Yun Lee	The comparison of electricity levels related to the anode surface areas of Microbial Fuel Cell using a benthic mud sample	Wayzata Senior High School, Plymouth
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Abhishek Chandra & Sachchit Murali	A Comparison of Muck, Compost, and Soil on Producing Electrical Potential in a Microbial Fuel Cell (M.F.C) A Study of Luffa aegyptiaca as a Supplementary Bacterial Growth Medium	Mayo High School, Rochester
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Cameron Bruce	Building a Bio Band-aid	Mayo High School, Rochester
American Association for the Advancement of Science	American Association for the Advancement of Science <i>Male</i>	Prize package	Ezra Grothe & Richard Sather III	The Design and Development of an Innovative Multi-Modal Device to Improve Hand Hygiene Rates in Health Care Facilities	Lincoln High School, Thief River Falls, Thief River Falls
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Adrianna Pollak	The Use of Quantitative PCR to Determine the Impact of Zygosity (hemizygotes vs. homozygotes) on the Fitness and Impact in the Wild of Transgenic Fluorescent Zebrafish	Cloquet Public Schools, Cloquet
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie

American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Claire Drysdale	Combining Chemistry and Artistry: Synthesis and Identification of Artistic Patinas Using Raman Spectroscopy	Breck School, Minneapolis, Golden Valley
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Claire Simpson	Towards a total synthesis of novel anti- cancer molecule drimentine C	Breck School, Minneapolis, Hopkins
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Patricia Zhao & Madison Ernst	Targeting toxic waste in soil and aquatic environments: Investigating chemotactic response of Pseudomonas putida F1	Breck School, Minneapolis, Maple Grove
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Bhargavi Papisetty	Predictive Analytics for Agricultural Commodity Pricing in India using the ARIMA Model	Wayzata Senior High School, Plymouth
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Priyanka Narayan	Understanding the Mechanism Behind Nanoparticle Enhanced Oral Absorption of Chemotherapeutic Drugs	Wayzata Senior High School, Plymouth
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Alanna Bram	Determination of Factors that Impact Clearance of Suspended Particulate Matter (Dust) in Air	John Marshall High School, Rochester
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Aditi Das	Developing Transgenic Sugar Beet by Agrobacterium-mediated Gene Transfer	Roseville Area High School, Roseville
American Association for the Advancement of Science	American Association for the Advancement of Science Female	Prize package	Elisa Villafana	Save the honeybees: Stop using neonicotinoids: Effects of the pesticide thiamethoxam on vigor, growth and development of soybean (Glycine max) crops	Breck School, Minneapolis, Wayzata
American Chemical Society	American Chemical Society Award Honorable Mention Middle School	Certificate	Samantha Bray	Ink Chromatography	Salk Middle School, Elk River
American Chemical Society	American Chemical Society Award Honorable Mention Middle School	Certificate	Chloe Drummond	Feel The Burn	Park Christian School, Fargo
American Chemical Society	American Chemical Society Award Honorable Mention Middle School	Certificate	Nicole Jasperse	Time to Sublime: Dry Ice Sublimation	Park Christian School, Moorhead

American Chemical Society	American Chemical Society Award 1st Place Middle School	\$50.00	Luke Gentle	Following the Flow of Flubber	Rogers Junior High, St. Michael
American Chemical Society	American Chemical Society Award Honorable Mention High School	Certificate	Claire Drysdale	Combining Chemistry and Artistry: Synthesis and Identification of Artistic Patinas Using Raman Spectroscopy	Breck School, Minneapolis, Golden Valley
American Chemical Society	American Chemical Society Award Honorable Mention High School	Certificate	Claire Simpson	Towards a total synthesis of novel anti- cancer molecule drimentine C	Breck School, Minneapolis, Hopkins
American Chemical Society	American Chemical Society Award Honorable Mention High School	Certificate	Andrea Peterson	Effect of Hypoxia on Tumor Cell Proteins	Mayo High School, Rochester
American Chemical Society	American Chemical Society Award 1st Place High School	\$100.00	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie
American Fisheries Society	Aquatic Science Award of Excellence <i>Middle</i> School	Fishing rod and book	Morgan Smith	Camouflaged Pharmaceuticals: What effect does ibuprofen in Lake Superior water have on Lumbriculus variegatus's (sediment worm) survival and reproduction rate?	Cloquet Public Schools, Cloquet
American Fisheries Society	Aquatic Science Award of Excellence High School	Fishing rod and book	Christine Neumann & Crystal Moynan	What effect does gender, tone, and sound location have on the response behavior of Neogobius melanostomus (Round Gobies) and the possibility of future trapping of this invasive species?	Cloquet High School, Cloquet
American Meteorological Society	American Meteorological Society Award	Certificate	Alanna Bram	Determination of Factors that Impact Clearance of Suspended Particulate Matter (Dust) in Air	John Marshall High School, Rochester
American Meteorological Society	American Meteorological Society Award	Certificate	Tyme Enright	Determining Water Pollution and Tracing Filtration Treatment with Index of Refraction	John A. Johnson High School, St. Paul
American Psychological Association	American Psychological Association Award	Certificate	Elise Webb	Does Multisensory Teaching Improve Learning and Memory?	New Ulm Area Catholic School, New Ulm
American Psychological Association	American Psychological Association Award	Certificate	Bennett Gathje	Family Status as an Indicator of Academic Success	Chatfield High School, Stewartvile

ASM International	ASM Materials Education Foundation Award	Certificate and medallion	Arush Jain	A NOVEL CARDIO VASCULAR STENT DESIGN UTILIZING MULTIPLE MATERIALS	Eden Prairie High School, Eden Prairie
ASM International	ASM Materials Education Foundation Award	Certificate and medallion	Robert Kitaoka	Dynamic Response of a Human Neck Replica to Axial Compression Impact Loading	Mayo High School, Rochester
Association of Women Geoscientists	Association of Women Geoscientists Award	Certificate	Madison Pallin	St. Louis River Estuary: The use of Lidar imagery to evaluate Spring Creeks sediment load and the effect of location and a large storm event on the overall water quality within the Lake Superior/ St. Louis River/ Spring Creek watershed	Cloquet High School, Cloquet
Association of Women Geoscientists	Association of Women Geoscientists Award	Certificate	BreAnnene Wilson	The Effects of Decreased Atmospheric Pressure on Lettuce Growth	Franklin Middle School, Thief River Falls, Thief River Falls
Beckman Coulter	Beckman Coulter Award 3rd Place Science Middle School	\$50.00	Elizabeth Jarocki	Does Double-Dipping Spread Bacteria?	Holy Rosary School, Duluth
Beckman Coulter	Beckman Coulter Award 3rd Place Science Middle School	\$50.00	Jesse O'Driscoll	A Cheap and Simple Way to Reduce Disabilities in Developing Nations	Schaeffer Academy, Rochester
Beckman Coulter	Beckman Coulter Award 3rd Place Science Middle School	\$50.00	Michelle Mai	Does Green Tea (Camellia sinensis) Kill Mouth Bacteria?	Friedell Middle School, Rochester
Beckman Coulter	Beckman Coulter Award 3rd Place Engineering Middle School	\$50.00	Austin McCoy	Developing and Implementing Portable Low Cost PCR Test Equipment for Better Access to Disease Detection Methods, Research and Education	Friedell Middle School, Rochester
Beckman Coulter	Beckman Coulter Award 3rd Place Engineering Middle School	\$50.00	Ben Chrepta	Improving and Testing Robotic Arm Kinesthetics with the use of Processing, Kinect, and Arduino	Friedell Middle School, Rochester
Beckman Coulter	Beckman Coulter Award 2nd Place Science Middle School	\$150.00	Nicole Jasperse	Time to Sublime: Dry Ice Sublimation	Park Christian School, Moorhead
Beckman Coulter	Beckman Coulter Award 2nd Place Engineering Middle School	\$150.00	Gaurav Behera	Peripheral Neuropathy Analyzing System	Friedell Middle School, Rochester

Beckman Coulter	Beckman Coulter Award 1st Place Science Middle School	\$350.00	Luke Gentle	Following the Flow of Flubber	Rogers Junior High, St. Michael
Beckman Coulter	Beckman Coulter Award 1st Place Engineering Middle School	\$350.00	Andy Eggebraaten	A study of using speech recognition to control a robotic hand	John Adams Middle School, Rochester
Beckman Coulter	Beckman Coulter Award 3rd Place Science High School	\$50.00	Abigail Butler & Alexus Kreft	Investigating the Etiology of Human Disease by Studying Levels of Oral Bacteria	Sibley East- Gaylord Junior High, Glencoe
Beckman Coulter	Beckman Coulter Award 3rd Place Science High School	\$50.00	Claire Simpson	Towards a total synthesis of novel anti- cancer molecule drimentine C	Breck School, Minneapolis, Hopkins
Beckman Coulter	Beckman Coulter Award 3rd Place Science High School	\$50.00	Priyanka Narayan	Understanding the Mechanism Behind Nanoparticle Enhanced Oral Absorption of Chemotherapeutic Drugs	Wayzata Senior High School, Plymouth
Beckman Coulter	Beckman Coulter Award 3rd Place Engineering High School	\$50.00	Robert Kitaoka	Dynamic Response of a Human Neck Replica to Axial Compression Impact Loading	Mayo High School, Rochester
Beckman Coulter	Beckman Coulter Award 3rd Place Engineering High School	\$50.00	Cale Geffre & Tyler Weiss	Solution to Lost Remotes	Shakopee High School, Shakopee
Beckman Coulter	Beckman Coulter Award 2nd Place Science High School	\$150.00	Serena Jing	The Silver Bullet: Using silver nanoparticles to kill dangerous bacteria in food and elsewhere	Central High School, St. Paul
Beckman Coulter	Beckman Coulter Award 2nd Place Engineering High School	\$150.00	Michael Thompson & Kanyon Edvall	Application Based Bluetooth Triangulation	Perham Senior High School, Perham
Beckman Coulter	Beckman Coulter Award 1st Place Science High School	\$350.00	Trevor Larsen & Nath Samaratunga	Using histology to investigate stem cells as a treatment for bronchiolitis obliterans	Breck School, Minneapolis, St. Louis Park
Beckman Coulter	Beckman Coulter Award 1st Place Engineering High School	\$350.00	Ezra Grothe & Richard Sather III	The Design and Development of an Innovative Multi-Modal Device to Improve Hand Hygiene Rates in Health Care Facilities	Lincoln High School, Thief River Falls, Thief River Falls
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Heather Stone	Globally Utilizing Perennial Intermediate Wheatgrass	Mounds View High School, Arden HIlls

Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Maddison Rice & Makaleah Kneisel	The Height and Germination Rate of grass with Compost Worms!!	Cloquet Middle School, Cloquet
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Jennifer Palmer & Ellen Weikle	Bin Corn vs Seed Corn	Gibbon-Fairfax- Winthrop High School, Fairfax
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Trevor Schroeder & Dustin Koskela	Growin' oats	Gibbon-Fairfax- Winthrop High School, Gibbon
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Aditi Das	Developing Transgenic Sugar Beet by Agrobacterium-mediated Gene Transfer	Roseville Area High School, Roseville
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Brandon Kasprick	Analyzing the Effectiveness of Various Fungicides on the Prevention of Sclerotinia sclerotiorum Infestation in Glycine max and Their Degradation of Natural resources' Quality	Lincoln High School, Thief River Falls, Thief River Falls
Biosciences for Farming in Africa	Biosciences for Farming in Africa Award	Book	Karryn Leake	The Effects of a Growth Regulator on Soybean Yields	Franklin Middle School, Thief River Falls, Thief River Falls
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Emma Johnson	The Secret Life of Bees	St. Huberts School, Chanhassen
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Frances Slater	One fish, two fish, red fish, blue fish: What effect does the genotype of a heterozygous zebrafish cross have on the phenotype of their progeny?	Cloquet Middle School, Cloquet
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Jake Miller	Cake-Eating Redshirts, What? The Redshirt Effect on State-Standardized Test Scores in Edina.	Our Lady Of Grace Catholic School, Eden Prairie
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Grace Knoer	Heartrate in Daphnia	Our Lady Of Grace Catholic School, Edina

Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Cameron Knoll	Stop Treating Your Soil Like Dirt!	Park Christian School, Fargo
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Zohair Khan	The Effects of Thermal Insulation on Heat Retention	Al-Amal School, Fridley
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Stephen Betts	Now is the Time! A Study to Improve Diagnosis and Evaluation of Mild Traumatic Brain Injuries (Concussions) for Children 5-12 years old	Our Lady Of Grace Catholic School, Minneapolis
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Jaydan Hotovec	Wind or Water, Which Causes More Soil Erosion?	Cathedral High School, New Ulm
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Samantha Guldan	How Do Varying Ratios of Biochar and Polymer Granules Affect Plant Growth?	Cathedral High School, New Ulm
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Alice Geng	Natural Antibiotics: The Fight Against MDR Bacteria	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Andy Eggebraaten	A study of using speech recognition to control a robotic hand	John Adams Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Audrey Ting	The Influence of Hypersegregation on the Economic, Education, Crime, and Health Status of an Urban Population	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Austin McCoy	Developing and Implementing Portable Low Cost PCR Test Equipment for Better Access to Disease Detection Methods, Research and Education	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Ben Chrepta	Improving and Testing Robotic Arm Kinesthetics with the use of Processing, Kinect, and Arduino	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Gaurav Behera	Peripheral Neuropathy Analyzing System	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Hemanth Asirvatham	Magnetic Attraction For Neural Tracts	Friedell Middle School, Rochester

Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Michelle Mai	Does Green Tea (Camellia sinensis) Kill Mouth Bacteria?	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Pranav Anandarao	Efficiency of Nano-Crystalline Titanium Dioxide Based Dye Sensitized Solar Cells Using Natural Dyes	Friedell Middle School, Rochester
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Luke Gentle	Following the Flow of Flubber	Rogers Junior High, St. Michael
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Forrest Ahrens	How Does the Strength of the Permanent Magnetic Field of an Electric Motor Affect the Rotations Per Minute (RPM) of the Motors Armature?	Murray Junior High School, St. Paul
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Daniel Ellis	how does the temperature of a tuning fork affect its frequency	Murray Junior High School, St. Paul
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Gayathri Dileepan	Harmful Hamburgers	Murray Junior High School, St. Paul
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Austin Weatherhead	Where to Swim: testing for Nitrates in Water	Winona Middle School, Winona
Broadcom MASTERS	Broadcom MASTERS Award	Certificate	Max Derbyshire	Measuring Atmospheric Light Reflections in Urban vs. Rural Cities	Winona Middle School, Winona
Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Elizabeth Myster	Climate Change Causes Caterpillar Calamity	St. Huberts School, Chanhassen
Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Haylee Mizia- Larue	Do the Hematocrit levels in sled dogs differ from exercise?	Ordean Middle School, Duluth
Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Kate Kleinschmidt	Does Sunscreen Affect the Aquatic Organism Daphnia Magna?	Holy Rosary School, Duluth
Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Michael Wagner	Flaming Fuels	St. Huberts School, Eden Prairie

Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Samantha Bray	Ink Chromatography	Salk Middle School, Elk River
Diasorin, Inc.	Diasorin, Inc. Merit Award	\$100.00	Anna St. Peter & Hali Soukup	Moving Objects with Sound	St. Marys School, Sleepy Eye, Sleepy Eye
Diasorin, Inc.	Diasorin, Inc. Relativity Award	\$30.00	Haylee Mizia- Larue	Do the Hematocrit levels in sled dogs differ from exercise?	Ordean Middle School, Duluth
Ecolab Foundation	Food Safety Award Middle School	\$700.00	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Ecolab Foundation	Food Safety Award High School	\$700.00	Ezra Grothe & Richard Sather III	The Design and Development of an Innovative Multi-Modal Device to Improve Hand Hygiene Rates in Health Care Facilities	Lincoln High School, Thief River Falls, Thief River Falls
Ecolab Foundation	Green Award Middle School	\$700.00	Sophia Feller	The effect of different chemicals in lake water on the chemotaxis of Physarum polycephalum (slime mold)	Eagle Ridge Junior High, Burnsville
Ecolab Foundation	Green Award High School	\$700.00	Patricia Zhao & Madison Ernst	Targeting toxic waste in soil and aquatic environments: Investigating chemotactic response of Pseudomonas putida F1	Breck School, Minneapolis, Maple Grove
Fermi National Accelerator Laboratory	Fermi National Accelerator Laboratory Award <i>Middle</i> School	Prize package	Ahmed Shahkhan	What A Drag!	Al-Amal School, Blaine
Fermi National Accelerator Laboratory	Fermi National Accelerator Laboratory Award <i>Middle</i> School	Prize package	Russell Drye	Can I Improve the Wi-Fi?	La Crescent Middle School, La Crescent
Fermi National Accelerator Laboratory	Fermi National Accelerator Laboratory Award High School	Prize package	Trentin Russell & Jada Johnson	Neutrino Menagerie: A comparison of student and expert analysis of visual images collected from the Ash River Neutrino Detector to sort and classify possible neutrinos by flavor.	Cloquet High School, Cloquet
Fermi National Accelerator Laboratory	Fermi National Accelerator Laboratory Award High School	Prize package	Arush Jain	A NOVEL CARDIO VASCULAR STENT DESIGN UTILIZING MULTIPLE MATERIALS	Eden Prairie High School, Eden Prairie

Fermi National Accelerator Laboratory	Fermi National Accelerator Laboratory Award High School	Prize package	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth
General Mills Foundation	Developing and Sharing Food Solutions Middle School	\$50.00	Julia Eubanks	Does Eating Genetically Modified Organisms Cause Inflammation?	Annunciation School, Minneapolis
General Mills Foundation	Developing and Sharing Food Solutions 2nd Place High School	\$75.00	Elaine Adams & Ella Haefner	Does the Current Growth Stage of a Soybean Affect a Herbicide's Effect on Genetically Modified Enzymes?	Loyola High School, Mankato
General Mills Foundation	Developing and Sharing Food Solutions 1st Place High School	\$125.00	Tayiah Hanson	What effect does application of acetaminophen dilutions have on Lactuca Sativa (Grands Rapid lettuce) germination and root length?	Cloquet High School, Cloquet
General Mills Foundation	Food & Nutrition Award Middle School	\$500.00	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
General Mills Foundation	Food & Nutrition Award High School	\$700.00	Elisa Villafana	Save the honeybees: Stop using neonicotinoids: Effects of the pesticide thiamethoxam on vigor, growth and development of soybean (Glycine max) crops	Breck School, Minneapolis, Wayzata
General Mills Foundation	Helping Families Make Nutritious Food Choices <i>Middle</i> School	\$50.00	Preethi Kaliappan	How does the vitamins and minerals in organic and non-organic apples affect how much healthier they are?	Friedell Middle School, Rochester
General Mills Foundation	Helping Families Make Nutritious Food Choices 2nd Place High School	\$75.00	Nick Bridenstine	How Greasy Are Potato Chips	Hinckley/Finlayso n High School, Finlayson
General Mills Foundation	Helping Families Make Nutritious Food Choices 1st Place High School	\$125.00	Emily Carlson	Effects of organic agriculture on bacterial content of raw ground beef	Burnsville High School, Burnsville
General Mills Foundation	Integrating Food with Healthy Active Lifestyles <i>Middle</i> School	\$50.00	Michelle Mai	Does Green Tea (Camellia sinensis) Kill Mouth Bacteria?	Friedell Middle School, Rochester
General Mills Foundation	Integrating Food with Healthy Active Lifestyles 2nd Place High School	\$75.00	Geeta Rajamani	The Use of Well-Timed Low Intensity Activity for Type 2 Diabetics	Highland Park Senior High, St. Paul

General Mills Foundation	Integrating Food with Healthy Active Lifestyles 1st Place High School	\$125.00	Isaiah Croatt, Bradley Gustafson, & Jared O Connor	Effects of Oxiracetam on the Cognitive Abilities of House Mice (Mus musculus)	Jackson County Central Senior High School, Lakefield
General Mills Foundation	Providing Food to Those in Need <i>Middle School</i>	\$50.00	Sophia Tomlinson	Algae Alternatives	Calvin Christian School, Bloomington
General Mills Foundation	Providing Food to Those in Need 2nd Place High School	\$75.00	Aditi Das	Developing Transgenic Sugar Beet by Agrobacterium-mediated Gene Transfer	Roseville Area High School, Roseville
General Mills Foundation	Providing Food to Those in Need 1st Place High School	\$125.00	Heather Stone	Globally Utilizing Perennial Intermediate Wheatgrass	Mounds View High School, Arden HIlls
Graduate Women in Science	Graduate Women in Science Award 6th Grade Middle School Projects	\$25.00	Elise Trail- Johnson	Does the type of storage container affect egg freshness?	Capitol Hill School, St. Paul
Graduate Women in Science	Graduate Women in Science Award 7th Grade Middle School Projects	\$25.00	Abigail Schammel	Do You Recall?	Ellis Middle School, Austin
Graduate Women in Science	Graduate Women in Science Award 8th Grade Middle School Projects	\$25.00	Caroline Bowen	The Effects of a Genetically Modified vs. an Organic Papaya Diet on the Longevity and Fertility of Fruit Flies	Our Lady Of Grace Catholic School, Edina
Graduate Women in Science	Graduate Women in Science Award 9th Grade Middle School Projects	\$25.00	Sarah Uhm	To Chew or Not to Chew; That is the Question	Century High School, Rochester
Graduate Women in Science	Graduate Women in Science Award 10th Grade Middle School Projects	\$25.00	Kristin Robinson	Bacterial Contamination in School Departments	Burnsville High School, Savage
Graduate Women in Science	Graduate Women in Science Award 11th Grade Middle School Projects	\$25.00	Annie Sun	Tumor-Induced Depletion of Lymphocytes and Mechanisms of Tumor Immune Evasion	Mayo High School, Rochester
Graduate Women in Science	Graduate Women in Science Award 12th Grade Middle School Projects	\$25.00	Maria Lorenson	The Effects of ethinyl estradiol on Danio rerio Embryonic Development	Perham Senior High School, Perham
Graduate Women in Science	Graduate Women in Science Award 6th Grade Middle School Papers	\$25.00	Anna Prchal	The Effects of the New Prague Wastewater Treatment Plant on Sand Creek	New Prague Middle School, Montgomery

Graduate Women in Science	Graduate Women in Science Award 7th Grade Middle School Papers	\$25.00	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Graduate Women in Science	Graduate Women in Science Award 8th Grade Middle School Papers	\$25.00	Emilia Topp- Johnson	Behind the Kernels, A Study of 5 Fungal Endophytes and their use in Biocontrol Against the Common Maize Pathogen Ustilago maydis	Friends School Of MN, St. Paul
Institute of Food Technologists	IFT Minnesota Section Award 2nd Place Middle School	\$250.00	Natalie Daly	How Does Fat/Fat Subsitiute Type in Cookies Affect Taste, Texture, and Appearance	Holy Rosary School, Duluth
Institute of Food Technologists	IFT Minnesota Section Award 1st Place Middle School	\$500.00	Harmanpreet Kaur	Comparing Calcium in Various Types of Milk Used in Human Consumption	Friedell Middle School, Rochester
Institute of Food Technologists	IFT Minnesota Section Award 2nd Place High School	\$250.00	Sunghee Lee & Joseph Vallin	Oxygen vs. Ethylene: Optimizing the fastest fruit ripening environment	Concordia Academy, Roseville
Institute of Food Technologists	IFT Minnesota Section Award 1st Place High School	\$500.00	Heather Stone	Globally Utilizing Perennial Intermediate Wheatgrass	Mounds View High School, Arden HIlls
Intel	Excellence in Computer Science Award	Certificate	Caleb Charon	What effect does a speech therapy application (flash cards), programed in iPhone Operating System (IOS), have on speech articulation when compared to the use of physical handheld flashcards?	Cloquet High School, Cloquet
Intel	Excellence in Computer Science Award	Certificate	Michael Thompson & Kanyon Edvall	Application Based Bluetooth Triangulation	Perham Senior High School, Perham
Intel International Science & Engineering Fair	ISEF Award Finalist	All- expenses- paid trip to ISEF	Jonah Butler	Employing In Situ Generated Peracetic Acid And Fungal Biosynthesis To Produce Biofuels	Sibley East High School, Glencoe
Intel International Science & Engineering Fair	ISEF Award Finalist	All- expenses- paid trip to ISEF	Claire Simpson	Towards a total synthesis of novel anti- cancer molecule drimentine C	Breck School, Minneapolis, Hopkins
Intel International Science & Engineering Fair	ISEF Award Finalist	All- expenses- paid trip to ISEF	Priyanka Narayan	Understanding the Mechanism Behind Nanoparticle Enhanced Oral Absorption of Chemotherapeutic Drugs	Wayzata Senior High School, Plymouth

Intel International Science & Engineering Fair	ISEF Award Finalist	All- expenses- paid trip to ISEF	Michelle Campeau	Comparative Evaluation of Electrical Strategies for Eradication of Staphylococcus epidermidis Biofilms	Mayo High School, Rochester
Intel International Science & Engineering Fair	ISEF Award Alternate		Cameron Bruce	Building a Bio Band-aid	Mayo High School, Rochester
Intel International Science & Engineering Fair	ISEF Award Alternate		Ece Kremers	KNEE REPLACEMENT OUTCOMES	Mayo High School, Rochester
Minnesota Academy of Science	Best 6th Grade Paper Award	Trophy	Stephen Betts	Now is the Time! A Study to Improve Diagnosis and Evaluation of Mild Traumatic Brain Injuries (Concussions) for Children 5-12 years old	Our Lady Of Grace Catholic School, Minneapolis
Minnesota Academy of Science	Best 7th Grade Paper Award	Trophy	Pranav Anandarao	Efficiency of Nano-Crystalline Titanium Dioxide Based Dye Sensitized Solar Cells Using Natural Dyes	Friedell Middle School, Rochester
Minnesota Academy of Science	Best 8th Grade Paper Award	Trophy	Emilia Topp- Johnson	Behind the Kernels, A Study of 5 Fungal Endophytes and their use in Biocontrol Against the Common Maize Pathogen Ustilago maydis	Friends School Of MN, St. Paul
Minnesota Academy of Science	Grand Awards Silver	Medal	Emma Johnson	The Secret Life of Bees	St. Huberts School, Chanhassen
Minnesota Academy of Science	Grand Awards Silver	Medal	Justin Friedrich	Cardiovascular Conditioning Related to Activity	Chatfield High School, Chatfield
Minnesota Academy of Science	Grand Awards Silver	Medal	Adrianna Pollak	The Use of Quantitative PCR to Determine the Impact of Zygosity (hemizygotes vs. homozygotes) on the Fitness and Impact in the Wild of Transgenic Fluorescent Zebrafish	Cloquet Public Schools, Cloquet
Minnesota Academy of Science	Grand Awards Silver	Medal	Christine Neumann & Crystal Moynan	What effect does gender, tone, and sound location have on the response behavior of Neogobius melanostomus (Round Gobies) and the possibility of future trapping of this invasive species?	Cloquet High School, Cloquet
Minnesota Academy of Science	Grand Awards Silver	Medal	Kate Kleinschmidt	Does Sunscreen Affect the Aquatic Organism Daphnia Magna?	Holy Rosary School, Duluth

Minnesota Academy of Science	Grand Awards Silver	Medal	Jake Miller	Cake-Eating Redshirts, What? The Redshirt Effect on State-Standardized Test Scores in Edina.	Our Lady Of Grace Catholic School, Eden Prairie
Minnesota Academy of Science	Grand Awards Silver	Medal	Jason Sylvestre	VoltX 2.0, A Rescue Robot That Can Locate and Extract Victims	Benilde-St. Margaret's, Eden Prairie
Minnesota Academy of Science	Grand Awards Silver	Medal	Cameron Knoll	Stop Treating Your Soil Like Dirt!	Park Christian School, Fargo
Minnesota Academy of Science	Grand Awards Silver	Medal	Zohair Khan	The Effects of Thermal Insulation on Heat Retention	Al-Amal School, Fridley
Minnesota Academy of Science	Grand Awards Silver	Medal	Jonah Butler	Employing In Situ Generated Peracetic Acid And Fungal Biosynthesis To Produce Biofuels	Sibley East High School, Glencoe
Minnesota Academy of Science	Grand Awards Silver	Medal	Sofie Kim & Jacob Levy	Novel synthesis of medicinally applicable 1,2,3-triazole derivatives	Breck School, Minneapolis, Golden Valley
Minnesota Academy of Science	Grand Awards Silver	Medal	Rohan Sinha	Mining Healthcare Data for Behavioral Factors Affecting Cost of Chronic Care	Wayzata Senior High School, Medina
Minnesota Academy of Science	Grand Awards Silver	Medal	Elias Garar & Hudeyfa Farah	Effect of Frequency of Visual Subliminal Stimuli Masked in Videos on Attainment of Information	Al-Amal School, Minneapolis
Minnesota Academy of Science	Grand Awards Silver	Medal	Stephen Betts	Now is the Time! A Study to Improve Diagnosis and Evaluation of Mild Traumatic Brain Injuries (Concussions) for Children 5-12 years old	Our Lady Of Grace Catholic School, Minneapolis
Minnesota Academy of Science	Grand Awards Silver	Medal	Brian Prchal	The Effects of Applying Wastewater Biosolids on Bio Energy Polyculture Test Plots and Various Varieties of Switchgrass- A Two Part Study	New Prague High School, Montgomery
Minnesota Academy of Science	Grand Awards Silver	Medal	Jaydan Hotovec	Wind or Water, Which Causes More Soil Erosion?	Cathedral High School, New Ulm
Minnesota Academy of Science	Grand Awards Silver	Medal	Samantha Guldan	How Do Varying Ratios of Biochar and Polymer Granules Affect Plant Growth?	Cathedral High School, New Ulm

Minnesota Academy of Science	Grand Awards Silver	Medal	Leighton Zhao	Experimental Determination of the Wall Loss Rate of Fractal Agglomerate Aerosols	Wayzata Senior High School, Plymouth
Minnesota Academy of Science	Grand Awards Silver	Medal	Abhishek Chandra & Sachchit Murali	A Comparison of Muck, Compost, and Soil on Producing Electrical Potential in a Microbial Fuel Cell (M.F.C) A Study of Luffa aegyptiaca as a Supplementary Bacterial Growth Medium	Mayo High School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Alanna Bram	Determination of Factors that Impact Clearance of Suspended Particulate Matter (Dust) in Air	John Marshall High School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Alice Geng	Natural Antibiotics: The Fight Against MDR Bacteria	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Austin McCoy	Developing and Implementing Portable Low Cost PCR Test Equipment for Better Access to Disease Detection Methods, Research and Education	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Ben Chrepta	Improving and Testing Robotic Arm Kinesthetics with the use of Processing, Kinect, and Arduino	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Cameron Bruce	Building a Bio Band-aid	Mayo High School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Michelle Campeau	Comparative Evaluation of Electrical Strategies for Eradication of Staphylococcus epidermidis Biofilms	Mayo High School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Nathaniel Shin	Staining Effects of Beverages on Eggshells & the Effect of Whitening Products on Stained Eggshells	Schaeffer Academy, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Pranav Anandarao	Efficiency of Nano-Crystalline Titanium Dioxide Based Dye Sensitized Solar Cells Using Natural Dyes	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Silver	Medal	Aisha Cacique	The Four Sacred Medicines and Carcinogens	South High School, St. Paul

Minnesota Academy of Science	Grand Awards Silver	Medal	Imogene Silver	Daphnia death by triclosan pollution	John A. Johnson High School, St. Paul
Minnesota Academy of Science	Grand Awards Silver	Medal	Melissa Teal	Up Up & Away	Battle Creek Middle School, St. Paul
Minnesota Academy of Science	Grand Awards Silver	Medal	Nicolina Mao	Sickly Spuds	Harding High School, St. Paul
Minnesota Academy of Science	Grand Awards Silver	Medal	Noelle Hinrichs	The Categorical Perception of Voice Onset Time in Regional Accents of the United States and Europe	Burnsville High School, Savage
Minnesota Academy of Science	Grand Awards Silver	Medal	Anna St. Peter & Hali Soukup	Moving Objects with Sound	St. Marys School, Sleepy Eye, Sleepy Eye
Minnesota Academy of Science	Grand Awards Silver	Medal	Luke Gentle	Following the Flow of Flubber	Rogers Junior High, St. Michael
Minnesota Academy of Science	Grand Awards Silver	Medal	Gayathri Dileepan	Harmful Hamburgers	Murray Junior High School, St. Paul
Minnesota Academy of Science	Grand Awards Silver	Medal	Ezra Grothe & Richard Sather III	The Design and Development of an Innovative Multi-Modal Device to Improve Hand Hygiene Rates in Health Care Facilities	Lincoln High School, Thief River Falls, Thief River Falls
Minnesota Academy of Science	Grand Awards Silver	Medal	Grace Brickson	Comparative Effectiveness of Solar Disinfection of Water Using Different Colored Linings of Lightboxes	Franklin Middle School, Thief River Falls, Thief River Falls
Minnesota Academy of Science	Grand Awards Silver	Medal	Austin Weatherhead	Where to Swim: testing for Nitrates in Water	Winona Middle School, Winona
Minnesota Academy of Science	Grand Awards Silver	Medal	Max Derbyshire	Measuring Atmospheric Light Reflections in Urban vs. Rural Cities	Winona Middle School, Winona
Minnesota Academy of Science	Grand Awards Silver	Medal	Amrita Mohanty	Schwann cell differentiation from stem cells of Neurofibromatosis patients and normal controls	Woodbury Senior High School, Woodbury

Minnesota Academy of Science	Grand Awards Silver	Medal	Mikaela Ackerman	The Zeigarnik Effect: How do uncompleted tasks correlate with adolescent gender?	Zimmerman Middle School, Zimmerman
Minnesota Academy of Science	Grand Awards Honorable Mention	Certificate	Josh Benson	Do E3 Spark Plugs Get Better Milage?	Hinckley/Finlayso n High School, Hinckley
Minnesota Academy of Science	Grand Awards Honorable Mention	Certificate	Keegan Mellema	Glass of Many Colors	Calvin Christian School, Shakopee
Minnesota Academy of Science	Grand Awards Gold	Medal	Frances Slater	One fish, two fish, red fish, blue fish: What effect does the genotype of a heterozygous zebrafish cross have on the phenotype of their progeny?	Cloquet Middle School, Cloquet
Minnesota Academy of Science	Grand Awards Gold	Medal	Tim Renier	Hand Hygiene Gone Viral? A Study of Student Involvement in a Social Media Campaign as a Method of Bringing Hand Hygiene to the Masses	Duluth East High School, Duluth
Minnesota Academy of Science	Grand Awards Gold	Medal	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Minnesota Academy of Science	Grand Awards Gold	Medal	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie
Minnesota Academy of Science	Grand Awards Gold	Medal	Grace Knoer	Heartrate in Daphnia	Our Lady Of Grace Catholic School, Edina
Minnesota Academy of Science	Grand Awards Gold	Medal	Claire Drysdale	Combining Chemistry and Artistry: Synthesis and Identification of Artistic Patinas Using Raman Spectroscopy	Breck School, Minneapolis, Golden Valley
Minnesota Academy of Science	Grand Awards Gold	Medal	Claire Simpson	Towards a total synthesis of novel anti- cancer molecule drimentine C	Breck School, Minneapolis, Hopkins
Minnesota Academy of Science	Grand Awards Gold	Medal	Patricia Zhao & Madison Ernst	Targeting toxic waste in soil and aquatic environments: Investigating chemotactic response of Pseudomonas putida F1	Breck School, Minneapolis, Maple Grove
Minnesota Academy of Science	Grand Awards Gold	Medal	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth

Minnesota Academy of Science	Grand Awards Gold	Medal	Bhargavi Papisetty	Predictive Analytics for Agricultural Commodity Pricing in India using the ARIMA Model	Wayzata Senior High School, Plymouth
Minnesota Academy of Science	Grand Awards Gold	Medal	Priyanka Narayan	Understanding the Mechanism Behind Nanoparticle Enhanced Oral Absorption of Chemotherapeutic Drugs	Wayzata Senior High School, Plymouth
Minnesota Academy of Science	Grand Awards Gold	Medal	Yun Lee	The comparison of electricity levels related to the anode surface areas of Microbial Fuel Cell using a benthic mud sample	Wayzata Senior High School, Plymouth
Minnesota Academy of Science	Grand Awards Gold	Medal	Andy Eggebraaten	A study of using speech recognition to control a robotic hand	John Adams Middle School, Rochester
Minnesota Academy of Science	Grand Awards Gold	Medal	Audrey Ting	The Influence of Hypersegregation on the Economic, Education, Crime, and Health Status of an Urban Population	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Gold	Medal	Gaurav Behera	Peripheral Neuropathy Analyzing System	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Gold	Medal	Hemanth Asirvatham	Magnetic Attraction For Neural Tracts	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Gold	Medal	Michelle Mai	Does Green Tea (Camellia sinensis) Kill Mouth Bacteria?	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Gold	Medal	Aditi Das	Developing Transgenic Sugar Beet by Agrobacterium-mediated Gene Transfer	Roseville Area High School, Roseville
Minnesota Academy of Science	Grand Awards Gold	Medal	Forrest Ahrens	How Does the Strength of the Permanent Magnetic Field of an Electric Motor Affect the Rotations Per Minute (RPM) of the Motors Armature?	Murray Junior High School, St. Paul
Minnesota Academy of Science	Grand Awards Gold	Medal	Daniel Ellis	how does the temperature of a tuning fork affect its frequency	Murray Junior High School, St. Paul
Minnesota Academy of Science	Grand Awards Gold	Medal	Elisa Villafana	Save the honeybees: Stop using neonicotinoids: Effects of the pesticide thiamethoxam on vigor, growth and development of soybean (Glycine max)	Breck School, Minneapolis, Wayzata

Minnesota Academy of Science	Grand Awards Bronze	Medal	Heather Stone	Globally Utilizing Perennial Intermediate Wheatgrass	Mounds View High School, Arden HIlls
Minnesota Academy of Science	Grand Awards Bronze	Medal	Walker Cage	Is The Job Done? Bagley Storm Water Retention Analysis - Year One	Bagley Secondary School, Bagley
Minnesota Academy of Science	Grand Awards Bronze	Medal	Max Vogel	Warm Fluff - Which Loose-Fill Insulation Insulates the Best?	Andersen Elementary School, Bayport
Minnesota Academy of Science	Grand Awards Bronze	Medal	Bo-derik Thorson	#Paving With Trash	Bemidji Middle School, Bemidji
Minnesota Academy of Science	Grand Awards Bronze	Medal	Owen Kavie	Waterproofing "Green" Packing Peanuts	Northdale Middle School, Coon Rapids MN, Blaine
Minnesota Academy of Science	Grand Awards Bronze	Medal	Yousuf Siddiqui & Shoaib Siddiqui	BioBot vs Machine	Al-Amal School, Blaine
Minnesota Academy of Science	Grand Awards Bronze	Medal	Brandi Nelson & Gabrielle Napper	Radical Runoff: What effect does road salt have on Lemna minor (duckweed) frond production?	Cloquet Middle School, Carlton
Minnesota Academy of Science	Grand Awards Bronze	Medal	Alexa Reynders & Alexis Pricco	Munching Moths	St. Huberts School, Chanhassen
Minnesota Academy of Science	Grand Awards Bronze	Medal	Andrew Kodet	Blast Off!	St. Huberts School, Chanhassen
Minnesota Academy of Science	Grand Awards Bronze	Medal	Matthew Dietz	The Effect of Cell Density and Growth Supplements on Mesenchymal Stem Cell Attachment and Growth on an Artificial Matrix	Chatfield High School, Chatfield
Minnesota Academy of Science	Grand Awards Bronze	Medal	Alma Jorgenson	Deep Winter Greenhouse:Growing Fresh Local Greens in Minnesota Winters	Clinton- Graceville- Beardsely Middle School, Clinton

Minnesota Academy of Science	Grand Awards Bronze	Medal	Morgan Smith	Camouflaged Pharmaceuticals: What effect does ibuprofen in Lake Superior water have on Lumbriculus variegatus's (sediment worm) survival and reproduction rate?	Cloquet Public Schools, Cloquet
Minnesota Academy of Science	Grand Awards Bronze	Medal	Ryan Fredrickson	Happy Hermits	Cloquet Middle School, Cloquet
Minnesota Academy of Science	Grand Awards Bronze	Medal	Sophia Krikava & Hailey Owens	Crazy Crayfish: What effect does salt runoff have on crayfish reaction	Cloquet Middle School, Cloquet
Minnesota Academy of Science	Grand Awards Bronze	Medal	Ben Glisczinski	Mental Imagery in Psychology	Holy Rosary School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Gabriella Lott	Long-Term Caffeine Exposure and Daphnia Magna Reproduction	Holy Rosary School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Haylee Mizia- Larue	Do the Hematocrit levels in sled dogs differ from exercise?	Ordean Middle School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Jenna Meyer	Model Rocket Fins and Altitudes	Holy Rosary School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Kianna Donnellan & Josephine Peterson	Nature's Cure for Nature's Nightmare	Ordean Middle School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Natalie Daly	How Does Fat/Fat Subsitiute Type in Cookies Affect Taste, Texture, and Appearance	Holy Rosary School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Sara Revoir	Do Male VS Female Voices Affect Plant Height, Germination Rate, and Root Length When Talking Kindly and Angrily to Seeds and Seedlings	Holy Rosary School, Duluth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Lauren Bench	A Comparison of the Performance of Baseball and Softball Bats	Burnsville High School, Eagan
Minnesota Academy of Science	Grand Awards Bronze	Medal	Chloe Drummond	Feel The Burn	Park Christian School, Fargo

Minnesota Academy of Science	Grand Awards Bronze	Medal	Olivia Wagendorf	The Effect of Wind on the Golf Shot	Park Christian School, Fargo
Minnesota Academy of Science	Grand Awards Bronze	Medal	Zach Donaue	Engineering a Hybrid Robotic Prototype: An Innovative use of Gravitational and Solar Energy	Breck School, Minneapolis, Golden Valley
Minnesota Academy of Science	Grand Awards Bronze	Medal	Paige Pasvogel	Temperature's Effect on Yeast	La Crescent Middle School, La Crescent
Minnesota Academy of Science	Grand Awards Bronze	Medal	Michael Luoma	Effects of Corn Residue and Soil Type on Phosphorus Leaching	La Crescent Middle School, La Crescent
Minnesota Academy of Science	Grand Awards Bronze	Medal	Isaiah Croatt, Bradley Gustafson, & Jared O'Connor	Effects of Oxiracetam on the Cognitive Abilities of House Mice (Mus musculus)	Jackson County Central Senior High School, Lakefield
Minnesota Academy of Science	Grand Awards Bronze	Medal	Minxuan Gu & Jered Everson	Misorientation of the nuclear-centrosomal axis during cell polarization is an! underlying factor in the pathogenesis of the primary dystonias	Mounds View High School, Lino Lakes
Minnesota Academy of Science	Grand Awards Bronze	Medal	Jackson Egert	Passive Reclamation of Unexploited Energy	Maple Grove Senior High, Maple Grove
Minnesota Academy of Science	Grand Awards Bronze	Medal	Julia Eubanks	Does Eating Genetically Modified Organisms Cause Inflammation?	Annunciation School, Minneapolis
Minnesota Academy of Science	Grand Awards Bronze	Medal	Parker Adams	The Water War	St. Helena School, Minneapolis, Minneapolis
Minnesota Academy of Science	Grand Awards Bronze	Medal	Nicole Jasperse	Time to Sublime: Dry Ice Sublimation	Park Christian School, Moorhead
Minnesota Academy of Science	Grand Awards Bronze	Medal	Kate Klimek	Burn Baby Burn	Cathedral High School, New Ulm
Minnesota Academy of Science	Grand Awards Bronze	Medal	Michael Thompson & Kanyon Edvall	Application Based Bluetooth Triangulation	Perham Senior High School, Perham

Minnesota Academy of Science	Grand Awards Bronze	Medal	Kaylee Eskeli	The Effects of Viscosupplementation on the Tibia-Metatarsus Joint in Avian Species	Lincoln High School, Thief River Falls, Plummer
Minnesota Academy of Science	Grand Awards Bronze	Medal	Easton McChesney & Wolfgang Ofstedal	Protecting Streams, Lakes, and Rivers: Engineering a Breakthrough Filter to Remove Phosphates from Stormwater Runoff	Breck School, Minneapolis, Plymouth
Minnesota Academy of Science	Grand Awards Bronze	Medal	Emily Howell	Dog Toys; What Makes a Favorite or a Flop?	Our Lady Of Grace Catholic School, Richfield
Minnesota Academy of Science	Grand Awards Bronze	Medal	Delaney Shin & Alexandra Shin	A Comparison of Robotic Assisted Microsurgery versus Manual Microsurgery in Technically Challenging Situations	Century High School, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Gracie Grimsrud & Taylor Fick	Is Stress Contagious?	Lincoln K-8 Choice, Rochester, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Harmanpreet Kaur	Comparing Calcium in Various Types of Milk Used in Human Consumption	Friedell Middle School, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Hongyi Jiang	Comparison of Optimum Energy Production Amongst Biodiesel and Biodiesel-Alcohol Blends	Century High School, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Ishaan Govindarajan	The "Sense-ational" Sock- Developing a Sensory Sock for Patients with Peripheral Neuropathy	Century High School, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Jared Nathan	E-mergency in E-cigarettes: Should Passive Vapers be Worried?	Lincoln K-8 Choice, Rochester, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Ken Galbraith	Flash Memory as a Backup Device: Testing a Real Life Scenario	Kellogg Middle School, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Kyle Philpott & Dalton Schuder	Does color matter in attracting Willow Cats for captivity?	Lincoln K-8 Choice, Rochester, Rochester
Minnesota Academy of Science	Grand Awards Bronze	Medal	Preethi Kaliappan	How does the vitamins and minerals in organic and non-organic apples affect how much healthier they are?	Friedell Middle School, Rochester

of Science Br	rand Awards ronze	Medal	Pujan Patel	The Effectiveness of Regenerative Shock Absorbers against Fuel Economy and Carbon Dioxide Emissions	Friedell Middle School, Rochester
	arand Awards Pronze	Medal	Robert Kitaoka	Dynamic Response of a Human Neck Replica to Axial Compression Impact Loading	Mayo High School, Rochester
	irand Awards Ironze	Medal	Rohan Patel	How Sweet It Is! Measuring Sugar in Your Food	Friedell Middle School, Rochester
	rand Awards ronze	Medal	Samantha Woog	Sustainable Freshwater Conservation Using Biochar, Zeolite, & Greywater: A Microbiologic, Agronomic, Environmental, & Economic Analysis	John Marshall High School, Rochester
	irand Awards Ironze	Medal	Noah Pahl	Effects of Conformity on Isolated Participants	Burnsville High School, Rosemount
	rand Awards ronze	Medal	Emilia Topp- Johnson	Behind the Kernels, A Study of 5 Fungal Endophytes and their use in Biocontrol Against the Common Maize Pathogen Ustilago maydis	Friends School Of MN, St. Paul
	rand Awards ronze	Medal	Elizabeth Ruder	Feathers Vs. Vanes Flight Through The Wind	Sartell Middle School, Sartell
	rand Awards ronze	Medal	Nath Samaratunga & Trevor Larsen	Using histology to investigate stem cells as a treatment for bronchiolitis obliterans	Breck School, Minneapolis, St. Louis Park
	irand Awards Ironze	Medal	Lily Xiong	How does the amount of ammonium nitrate affect the temperature of water?	Murray Junior High School, St. Paul
	arand Awards Fronze	Medal	Max Ylitalo	Garbage Reduction to Energy Production Converting Waste Paper to Cellulosic Ethanol	Stillwater Area High School, Stillwater
	arand Awards Pronze	Medal	Brandon Kasprick	Analyzing the Effectiveness of Various Fungicides on the Prevention of Sclerotinia sclerotiorum Infestation in Glycine max and Their Degradation of Natural resources' Quality	Lincoln High School, Thief River Falls, Thief River Falls

Minnesota Academy of Science	Grand Awards Bronze	Medal	BreAnnene Willson	The Effects of Decreased Atmospheric Pressure on Lettuce Growth	Franklin Middle School, Thief River Falls, Thief River Falls
Minnesota Academy of Science	Grand Awards Bronze	Medal	Karryn Leake	The Effects of a Growth Regulator on Soybean Yields	Franklin Middle School, Thief River Falls, Thief River Falls
Minnesota Academy of Science	Grand Awards Bronze	Medal	Noah Bechtold	The Auto-Water Pet Bowl	Park Christian School, West Fargo
Minnesota Academy of Science	Grand Awards Bronze	Medal	Anthony Trombetta	Testing Different Vibration Sensors on a Reconstructed Sea Turtle Nest	Winona Middle School, Winona
Minnesota Academy of Science	Middle School Paper Awards 8th Grade	Medal	Luke Wilson	Filtration of Rooftop-Harvested Rain Barrel Water for Edible Crops	St. John's Lutheran, Chaska, Chaska
Minnesota Academy of Science	Middle School Paper Awards 8th Grade	Medal	Angela Park	Machine Translation: Do Language Relationships Affect the Accuracy of Online Translators?	Holy Rosary School, Duluth
Minnesota Academy of Science	Middle School Paper Awards 8th Grade	Medal	Gabriella Lott	Long-Term Caffeine Exposure and Daphnia Magna Reproduction	Holy Rosary School, Duluth
Minnesota Academy of Science	Middle School Paper Awards 8th Grade	Medal	Kianna Donnellan & Josephine Peterson	Nature's Cure for Nature's Nightmare	Ordean Middle School, Duluth
Minnesota Academy of Science	Middle School Paper Awards 8th Grade	Medal	Ikraan Omar	The Effects of Toothpastes on Bacteria	AI-Amal School, Minneapolis
Minnesota Academy of Science	Middle School Paper Awards 7th Grade	Medal	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Minnesota Academy of Science	Middle School Paper Awards 7th Grade	Medal	Valerie Bares	How do winter temperatures affect the germination and growth of the tar spot fungus?	Murray Junior High School, St. Paul
Minnesota Academy of Science	Middle School Paper Awards 7th Grade	Medal	Isak Stillwell- Jardin	Does the Flavor of Mint Affect the Amount of Mouth Bacteria?	Murray Junior High School, St. Paul

Minnesota Academy of Science	Middle School Paper Awards 7th Grade	Medal	Grace Brickson	Comparative Effectiveness of Solar Disinfection of Water Using Different Colored Linings of Lightboxes	Franklin Middle School, Thief River Falls, Thief River Falls
Minnesota Academy of Science	Middle School Paper Awards 7th Grade	Medal	Parker Hawkinson	RC Cars Gears Affecting the Distance per Charge	Winona Middle School, Winona
Minnesota Academy of Science	Middle School Paper Awards 6th Grade	Medal	Max Vogel	Warm Fluff - Which Loose-Fill Insulation Insulates the Best?	Andersen Elementary School, Bayport
Minnesota Academy of Science	Middle School Paper Awards 6th Grade	Medal	Anna Prchal	The Effects of the New Prague Wastewater Treatment Plant on Sand Creek	New Prague Middle School, Montgomery
Minnesota Academy of Science	Middle School Paper Awards 6th Grade	Medal	Jackson Simones	Think Before You Drink!	New Prague Middle School, New Prague
Minnesota Academy of Science	Middle School Paper Awards 6th Grade	Medal	Isabella Farah	WHICH CLEANSING AGENT IS THE BEST DISINFECTANT AGAINST BACTERIA ON A PLASTIC SURFACE?	Capitol Hill School, St. Paul
Minnesota Academy of Science	Middle School Paper Awards 6th Grade	Medal	Manashree Padiyath	Bread Dough DOE: Saving bread from extinction!	MN Math & Science Academy, Woodbury
Minnesota Academy of Science	Winchell Award	Certificate	Matthew Lerdahl	Biofeedback Controller: Virtual Training for Myoelectric Transradial Prosthesis	Coon Rapids High School, Coon Rapids
Minnesota Environmental Health Association	Excellence in Environmental Health Science Award 2nd Place Middle School	\$50.00	Jared Nathan	E-mergency in E-cigarettes: Should Passive Vapers be Worried?	Lincoln K-8 Choice, Rochester, Rochester
Minnesota Environmental Health Association	Excellence in Environmental Health Science Award 1st Place Middle School	\$100.00	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Minnesota Environmental Health Association	Excellence in Environmental Health Science Award 3rd Place High School	\$50.00	Curtis Swenson	Lead fragments in harvested venison	Perham Senior High School, Perham
Minnesota	Excellence in			Effects of organic agriculture on bacterial	Burnsville High

Minnesota Environmental Health Association	Excellence in Environmental Health Science Award 1st Place High School	\$200.00	Tim Renier	Hand Hygiene Gone Viral? A Study of Student Involvement in a Social Media Campaign as a Method of Bringing Hand Hygiene to the Masses	Duluth East High School, Duluth
Minnesota Sea Life Aquarium	Minnesota Sea Life Aquarium Award	Prize package	Sophia Krikava & Hailey Owens	Crazy Crayfish: What effect does salt runoff have on crayfish reaction	Cloquet Middle School, Cloquet
Mu Alpha Theta	Mu Alpha Theta Award	Certificate	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth
Mu Alpha Theta	Mu Alpha Theta Award	Certificate	Pedro Angulo- Umana	Structural Analysis of Iterated Digit Sequences and Applications in Telecommunicative Theory	Stillwater Area High School, Stillwater
National Oceanic and Atmospheric Administration	National Oceanic and Atmospheric Administration Award	Certificate and medallion	Olivia Nelson	The Effects of Water Temperature on the Size of a Tornado Vortex	Ordean Middle School, Duluth
National Oceanic and Atmospheric Administration	National Oceanic and Atmospheric Administration Award	Certificate and medallion	Ester Archer	Maximizing Carbon Sequestration in a Photobioreactor By Pushing the Photosynthetic Limit of Cladophora	Loyola Catholic School, North Mankato
Parker-Hannifin Corporation	Parker-Hannifin Automation Award	Prize package	Forrest Ahrens	How Does the Strength of the Permanent Magnetic Field of an Electric Motor Affect the Rotations Per Minute (RPM) of the Motors Armature?	Murray Junior High School, St. Paul
Penny Lohman Family	Penny Lohman Memorial Award	\$250.00	Avni Jain	ALLERGEN ALERT! AN INNOVATION TO ASSIST PEOPLE WITH FINDING SAFE FOOD CHOICES	Central Middle School, Eden Prairie, Eden Prairie
Ricoh	Ricoh Sustainable Development Award	Certificate	Brian Prchal	The Effects of Applying Wastewater Biosolids on Bio Energy Polyculture Test Plots and Various Varieties of Switchgrass- A Two Part Study	New Prague High School, Montgomery
Ricoh	Ricoh Sustainable Development Award	Certificate	Ester Archer	Maximizing Carbon Sequestration in a Photobioreactor By Pushing the Photosynthetic Limit of Cladophora	Loyola Catholic School, North Mankato
SAS Institute - JMP Division	Data Analysis & Visualization Award	Software license	Kassidy Steen & Jessica Stone	The Effect of Hemispheric Dominance, Stimulus Valence, Age, and Gender on a Person's Degree of Latency	Cloquet High School, Cloquet
SAS Institute - JMP Division	Data Analysis & Visualization Award	Software license	Adrianna Kallis	Sort it Speedier: An Analysis of Data Sorting Efficiency	Park Christian School, Fargo

Science Museum of Minnesota	Best Exhibit Award Middle School	Museum membership	Noah Giddings	Do you know what is in your refrigerator, pantry and bathroom?	Kaleidoscope Charter School, Elk River
Science Museum of Minnesota	Best Exhibit Award Middle School	Museum membership	Griffin Olson	30 Grams of Sugar What Happens Next?	All Saints Catholic School, Farmington
Science Museum of Minnesota	Best Exhibit Award Middle School	Museum membership	Elizabeth Ruder	Feathers Vs. Vanes Flight Through The Wind	Sartell Middle School, Sartell
Science Museum of Minnesota	Best Exhibit Award High School	Museum membership	Rahema Rashid	Effect of Water Samples on the Survival and Heart Rate of D. magna over Time	Al-Amal School, Blaine
Science Museum of Minnesota	Best Exhibit Award High School	Museum membership	Luke Dietz	Recycled Power	Chatfield High School, Chatfield
Science Museum of Minnesota	Best Exhibit Award High School	Museum membership	Kaylee Eskeli	The Effects of Viscosupplementation on the Tibia-Metatarsus Joint in Avian Species	Lincoln High School, Thief River Falls, Plummer
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Emma Johnson	The Secret Life of Bees	St. Huberts School, Chanhassen
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Justin Friedrich	Cardiovascular Conditioning Related to Activity	Chatfield High School, Chatfield
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Frances Slater	One fish, two fish, red fish, blue fish: What effect does the genotype of a heterozygous zebrafish cross have on the phenotype of their progeny?	Cloquet Middle School, Cloquet
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Jake Miller	Cake-Eating Redshirts, What? The Redshirt Effect on State-Standardized Test Scores in Edina.	Our Lady Of Grace Catholic School, Eden Prairie
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Grace Knoer	Heartrate in Daphnia	Our Lady Of Grace Catholic School, Edina
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Cameron Knoll	Stop Treating Your Soil Like Dirt!	Park Christian School, Fargo

Seagate Technology	Seagate Emerging Scientist Award	Trophy	Zohair Khan	The Effects of Thermal Insulation on Heat Retention	Al-Amal School, Fridley
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Claire Drysdale	Combining Chemistry and Artistry: Synthesis and Identification of Artistic Patinas Using Raman Spectroscopy	Breck School, Minneapolis, Golden Valley
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Rohan Sinha	Mining Healthcare Data for Behavioral Factors Affecting Cost of Chronic Care	Wayzata Senior High School, Medina
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Stephen Betts	Now is the Time! A Study to Improve Diagnosis and Evaluation of Mild Traumatic Brain Injuries (Concussions) for Children 5-12 years old	Our Lady Of Grace Catholic School, Minneapolis
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Jaydan Hotovec	Wind or Water, Which Causes More Soil Erosion?	Cathedral High School, New Ulm
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Leighton Zhao	Experimental Determination of the Wall Loss Rate of Fractal Agglomerate Aerosols	Wayzata Senior High School, Plymouth
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Yun Lee	The comparison of electricity levels related to the anode surface areas of Microbial Fuel Cell using a benthic mud sample	Wayzata Senior High School, Plymouth
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Alice Geng	Natural Antibiotics: The Fight Against MDR Bacteria	Friedell Middle School, Rochester
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Audrey Ting	The Influence of Hypersegregation on the Economic, Education, Crime, and Health Status of an Urban Population	Friedell Middle School, Rochester
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Ben Chrepta	Improving and Testing Robotic Arm Kinesthetics with the use of Processing, Kinect, and Arduino	Friedell Middle School, Rochester
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Cameron Bruce	Building a Bio Band-aid	Mayo High School, Rochester
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Hemanth Asirvatham	Magnetic Attraction For Neural Tracts	Friedell Middle School, Rochester

Seagate Technology	Seagate Emerging Scientist Award	Trophy	Aisha Cacique	The Four Sacred Medicines and Carcinogens	South High School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Melissa Teal	Up Up & Away	Battle Creek Middle School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Nicolina Mao	Sickly Spuds	Harding High School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Noelle Hinrichs	The Categorical Perception of Voice Onset Time in Regional Accents of the United States and Europe	Burnsville High School, Savage
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Luke Gentle	Following the Flow of Flubber	Rogers Junior High, St. Michael
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Forrest Ahrens	How Does the Strength of the Permanent Magnetic Field of an Electric Motor Affect the Rotations Per Minute (RPM) of the Motors Armature?	Murray Junior High School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Daniel Ellis	how does the temperature of a tuning fork affect its frequency	Murray Junior High School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Gayathri Dileepan	Harmful Hamburgers	Murray Junior High School, St. Paul
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Grace Brickson	Comparative Effectiveness of Solar Disinfection of Water Using Different Colored Linings of Lightboxes	Franklin Middle School, Thief River Falls, Thief River Falls
Seagate Technology	Seagate Emerging Scientist Award	Trophy	Amrita Mohanty	Schwann cell differentiation from stem cells of Neurofibromatosis patients and normal controls	Woodbury Senior High School, Woodbury
Seagate Technology	Seagate Excellence in Science Mentoring Award 11+ Years Experience	\$1,000.00	Kevin Molohon		Champlin Park High School,
Seagate Technology	Seagate Excellence in Science Mentoring Award 1-10 Years Experience	\$1,000.00	Princesa VanBuren Hansen		Intermediate District 287,

Seagate Technology	Seagate Rising Star Award Middle School	\$1,500.00	Andy Eggebraaten	A study of using speech recognition to control a robotic hand	John Adams Middle School, Rochester
Seagate Technology	Seagate Rising Star Award High School	\$2,000.00	Alanna Bram	Determination of Factors that Impact Clearance of Suspended Particulate Matter (Dust) in Air	John Marshall High School, Rochester
Society for In Vitro Biology	Society for In Vitro Biology Award	Certificate	Annie Sun	Tumor-Induced Depletion of Lymphocytes and Mechanisms of Tumor Immune Evasion	Mayo High School, Rochester
Society for In Vitro Biology	Society for In Vitro Biology Award	Certificate	Amrita Mohanty	Schwann cell differentiation from stem cells of Neurofibromatosis patients and normal controls	Woodbury Senior High School, Woodbury
The International Society for Optics and Photonics	SPIE Optics and Photonics Science Fair Award 3rd Place	\$100.00	Pranav Anandarao	Efficiency of Nano-Crystalline Titanium Dioxide Based Dye Sensitized Solar Cells Using Natural Dyes	Friedell Middle School, Rochester
The International Society for Optics and Photonics	SPIE Optics and Photonics Science Fair Award 2nd Place	\$150.00	Lucas Derbyshire	Rotation of Polarized Light by Chiral Monosaccharides	Winona High School, Winona
The International Society for Optics and Photonics	SPIE Optics and Photonics Science Fair Award 1st Palce	\$250.00	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie
The Pentair Foundation	The Pentair Foundation Award 2nd Place Middle School	\$250.00	Brittney Kuntz	Differences in Chloride Concentration in an Urban Stream by Season & Site	Calvin Christian School, Plymouth
The Pentair Foundation	The Pentair Foundation Award 1st Place Middle School	\$500.00	Michael Luoma	Effects of Corn Residue and Soil Type on Phosphorus Leaching	La Crescent Middle School, La Crescent
The Pentair Foundation	The Pentair Foundation Award 2nd Place High School	\$250.00	Easton McChesney & Wolfgang Ofstedal	Protecting Streams, Lakes, and Rivers: Engineering a Breakthrough Filter to Remove Phosphates from Stormwater Runoff	Breck School, Minneapolis, Plymouth
The Pentair Foundation	The Pentair Foundation Award 1st Place High School	\$500.00	Madison Pallin	St. Louis River Estuary: The use of Lidar imagery to evaluate Spring Creeks sediment load and the effect of location and a large storm event on the overall water quality within the Lake Superior/ St. Louis River/ Spring Creek watershed	Cloquet High School, Cloquet

University of Minnesota College of Pharmacy	College of Pharmacy Award	\$1,000.00	Annie Sun	Tumor-Induced Depletion of Lymphocytes and Mechanisms of Tumor Immune Evasion	Mayo High School, Rochester
University of Minnesota College of Pharmacy	College of Pharmacy Award	\$1,000.00	Brian Yang	Reducing Cancer Metastasization With Heterocyclics	Harding High School, St. Paul
US Air Force	US Air Force Award	Certificate and prize package	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie
US Air Force	US Air Force Award	Certificate and prize package	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth
US Air Force	US Air Force Award	Certificate and prize package	Michael Hirsch & Nate Lax	The Effects of Various Adaptations to PEGASUS I, an Unmanned Drone Carrier	St. Marys School, Sleepy Eye, Sleepy Eye
US Department of Health and Human Services	Surgeon General's Award	Certificate	Tim Renier	Hand Hygiene Gone Viral? A Study of Student Involvement in a Social Media Campaign as a Method of Bringing Hand Hygiene to the Masses	Duluth East High School, Duluth
US Metric Association	US Metric Association Award	Certificate	Madison Pallin	St. Louis River Estuary: The use of Lidar imagery to evaluate Spring Creeks sediment load and the effect of location and a large storm event on the overall water quality within the Lake Superior/ St. Louis River/ Spring Creek watershed	Cloquet High School, Cloquet
US Metric Association	US Metric Association Award	Certificate	Kevin Zheng	Creating a Cavity-Dumped Helium Neon Laser	Wayzata Senior High School, Maple Grove
Water Environment Federation	Stockholm Junior Water Prize	Certificate	Patricia Zhao & Madison Ernst	Targeting toxic waste in soil and aquatic environments: Investigating chemotactic response of Pseudomonas putida F1	Breck School, Minneapolis, Maple Grove
Water Environment Federation	Stockholm Junior Water Prize	Certificate	Maria Lorenson	The Effects of ethinyl estradiol on Danio rerio Embryonic Development	Perham Senior High School, Perham
Water Environment Federation	Stockholm Junior Water Prize	Certificate	Samantha Woog	Sustainable Freshwater Conservation Using Biochar, Zeolite, & Greywater: A Microbiologic, Agronomic, Environmental, & Economic Analysis	John Marshall High School, Rochester

Welsh's Sweeping	Northern Star Award <i>Male</i>	\$50.00	Jacob Leitch	Dark to Light:Harnessing Wind Energy to Illuminate the World	Franklin Middle School, Thief River Falls, Thief River Falls
Welsh's Sweeping	Northern Star Award Female	\$50.00	Anna Prchal	The Effects of the New Prague Wastewater Treatment Plant on Sand Creek	New Prague Middle School, Montgomery
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Adrianna Pollak	The Use of Quantitative PCR to Determine the Impact of Zygosity (hemizygotes vs. homozygotes) on the Fitness and Impact in the Wild of Transgenic Fluorescent Zebrafish	Cloquet Public Schools, Cloquet
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Tim Renier	Hand Hygiene Gone Viral? A Study of Student Involvement in a Social Media Campaign as a Method of Bringing Hand Hygiene to the Masses	Duluth East High School, Duluth
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Lauren Bench	A Comparison of the Performance of Baseball and Softball Bats	Burnsville High School, Eagan
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Carolyn Jons	Improved Efficiency of Steam Generation Using Carbon Nanoparticles	Eden Prairie High School, Eden Prairie
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Jonah Butler	Employing In Situ Generated Peracetic Acid And Fungal Biosynthesis To Produce Biofuels	Sibley East High School, Glencoe
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Minxuan Gu & Jered Everson	Misorientation of the nuclear-centrosomal axis during cell polarization is an! underlying factor in the pathogenesis of the primary dystonias	Mounds View High School, Lino Lakes
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Patricia Zhao & Madison Ernst	Targeting toxic waste in soil and aquatic environments: Investigating chemotactic response of Pseudomonas putida F1	Breck School, Minneapolis, Maple Grove
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Vicky Erickson	Wind Vs. Kites	New Prague High School, New Market
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Apurv Shekhar	Scalable Algorithms with Novel Data Structures for Contiguity-Constrained Disaster Response and Evacuation Planning (Phase II)	Blake Upper School, Plymouth

Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Priyanka Narayan	Understanding the Mechanism Behind Nanoparticle Enhanced Oral Absorption of Chemotherapeutic Drugs	Wayzata Senior High School, Plymouth
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Yun Lee	The comparison of electricity levels related to the anode surface areas of Microbial Fuel Cell using a benthic mud sample	Wayzata Senior High School, Plymouth
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Cameron Bruce	Building a Bio Band-aid	Mayo High School, Rochester
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Michelle Campeau	Comparative Evaluation of Electrical Strategies for Eradication of Staphylococcus epidermidis Biofilms	Mayo High School, Rochester
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Robert Kitaoka	Dynamic Response of a Human Neck Replica to Axial Compression Impact Loading	Mayo High School, Rochester
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Aditi Das	Developing Transgenic Sugar Beet by Agrobacterium-mediated Gene Transfer	Roseville Area High School, Roseville
Wolfram Research	Wolfram Research Mathematica Software Award	Software license	Ezra Grothe & Richard Sather III	The Design and Development of an Innovative Multi-Modal Device to Improve Hand Hygiene Rates in Health Care Facilities	Lincoln High School, Thief River Falls, Thief River Falls
WSB & Associations	WSB Engineering Excellence Award	\$250.00	Max Ylitalo	Garbage Reduction to Energy Production Converting Waste Paper to Cellulosic Ethanol	Stillwater Area High School, Stillwater
Yale Science & Engineering Association	Yale Science & Engineering Association Award	Certificate	Jonah Butler	Employing In Situ Generated Peracetic Acid And Fungal Biosynthesis To Produce Biofuels	Sibley East High School, Glencoe
Yale Science & Engineering Association	Yale Science & Engineering Association Award	Certificate	Easton McChesney & Wolfgang Ofstedal	Protecting Streams, Lakes, and Rivers: Engineering a Breakthrough Filter to Remove Phosphates from Stormwater Runoff	Breck School, Minneapolis, Plymouth