

ISEF - International Science and Engineering Fair

Pittsburgh, PA - May 13-18, 2012

Finalists

Twin Cities

- | | | | |
|------|-------------------------------------|----------|---|
| 1126 | Andy Ylitalo | Grade 11 | The Total Displacement Cross Section of Hexagonal Boron Nitride Monolayers |
| 1013 | Laura S Landgraf,
Maggie M Green | Grade 12 | The Development of Visual Self-Recognition in Toddlers Through Mirror Reflections and Photographs |
| 1113 | Keshav K Mangalick | Grade 12 | Genetic Characteristics of Influenza A Viruses in Swine Populations |

Western Suburbs

- | | | | |
|------|-----------------------------------|----------|---|
| 1048 | Caleb J Kumar | Grade 11 | Designing and Validating a Java program to Improve the Diagnosis of Bladder Cancer: Year 2 |
| 1064 | Taylor S McCanna | Grade 12 | Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change |
| 1070 | Alejandro J Fenn,
Andrew Engel | Grade 12 | Engineering an Optical Cell to Improve Lithium-ion Battery Safety |

St. Paul

- | | | | |
|------|---------------|----------|----------------------|
| 1125 | Tom Vennemann | Grade 12 | Projecting Particles |
|------|---------------|----------|----------------------|

Alternates

Twin Cities

1st Alternate

- | | | | |
|------|---------------|----------|---|
| 1127 | Krista E Bain | Grade 10 | Thrive or Survive? An analysis of water type on the growth of hydroponically grown Lycopersicon Lycoperscium. |
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2nd Alternate

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|------|---------------|----------|--------------------------------------|
| 1024 | Scott A Svare | Grade 10 | The Effects of ADHD on Reaction Time |
|------|---------------|----------|--------------------------------------|

Western Suburbs

1st Alternate

- | | | | |
|------|---------------------------------|----------|---|
| 1067 | Alexander Spencer,
Evan Chen | Grade 12 | Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production |
|------|---------------------------------|----------|---|

2nd Alternate

- | | | | |
|------|------------------|----------|---------------------------------|
| 1071 | Felicia Y Hamann | Grade 11 | Producing Water Out of Thin Air |
|------|------------------|----------|---------------------------------|

3rd Alternate

1022 Camille I Smith Grade 9 Classroom of the Future: Interactive Software vs. Traditional Teaching Methods as a Viable or Nonviable Learning Tool

St. Paul

1st Alternate

1069 Nyle N Enright Grade 12 Grinding for a Finish!

Sponsors Awards

Winners must be present at the awards ceremony & have photo taken at project with award or an alternate will receive the award

Platinum Level-Plaque

3M Sponsor Award

1034 Nathaniel A Breitenfeldt Grade 12 Characterizing spectroscopic properties of a new coumarin amino-acid dye for use in protein analyses

Medtronic Sponsor Award

1071 Felicia Y Hamann Grade 11 Producing Water Out of Thin Air

Ecolab Sponsor Award

1073 Heather J Stone Grade 10 Developing A New Seeder For Small African Grains

Gold Level-Plaque

Dow Water and Process Solutions Sponsor Award

1047 Samarth A Damania Grade 12 A Data-mining Approach to Identify Factors that Contribute to High Pharmaceutical Drug Costs

Silver Level-Plaque

Midway Party Rental Sponsor Award

7103 Elizabeth V Ott Grade 7 Gluten vs. Gluten Free

Alliant Techsystems Sponsor Award

1048 Caleb J Kumar Grade 11 Designing and Validating a Java program to Improve the Diagnosis of Bladder Cancer: Year 2

Mintahoe Hospitality Group Sponsor Award

7097 Nathaniel R Farmer Grade 7 Children's Exposure to Black Carbon Pollution in a Suburban School Setting

Slattery Sales Group Sponsor Award

7089 Mark A Leinberger Grade 7 The Effects of Pollution on Solar Cell Productivity

1030	Anna M Hendrickson, Eva Wang	Grade 12	Interaction of Cyclin D1 and PPAR α in Cancer Cell Metabolism
1034	Nathaniel A Breitenfeldt	Grade 12	Characterizing spectroscopic properties of a new coumarin amino-acid dye for use in protein analyses
1043	Partha Naidu	Grade 12	Characterization and Application of Pseudoisocyanine-Iodide in Optical Devices
1047	Samarth A Damania	Grade 12	A Data-mining Approach to Identify Factors that Contribute to High Pharmaceutical Drug Costs
1048	Caleb J Kumar	Grade 11	Designing and Validating a Java program to Improve the Diagnosis of Bladder Cancer: Year 2
1051	Rishi Sinha	Grade 12	Predictive Modeling of Rehospitalization Using Health Care Claims Data
1053	Robert S Dorn, Saeed Hakim- Hashemi	Grade 12	The Future of Lighting: Improving the efficiency of organic light-emitting diodes (OLEDs)
1054	Carissa E Kloncz	Grade 12	Revamping the World's Energy Sources One Crop at a Time: Phase II
1055	Alynie K Xiong, Danny D Dang	Grade 11	One Step At A Time
1060	Katherine R Carman	Grade 10	Dragster Aerodynamics: A Scientific Study on the Effects of Shape on an Object's Aerodynamics
1062	Alex Eitzman	Grade 9	Robot Car
1064	Taylor S McCanna	Grade 12	Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change
1065	Dane R Olson	Grade 12	Development of a Stair-Climbing System
1067	Alexander Spencer, Evan Chen	Grade 12	Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production
1069	Nyle N Enright	Grade 12	Grinding for a Finish!
1070	Alejandro J Fenn, Andrew Engel	Grade 12	Engineering an Optical Cell to Improve Lithium-ion Battery Safety
1071	Felicia Y Hamann	Grade 11	Producing Water Out of Thin Air
1072	Emily Hannigan	Grade 12	Collecting Gas-Phase Silica Nanoparticles Into Liquid Water Using An Electric Field
1073	Heather J Stone	Grade 10	Developing A New Seeder For Small African Grains
1074	Sam M Weiss	Grade 11	Granular Segregation Patterns in a Rotating Drum
1077	Ellen J Soskin	Grade 12	Bioremediation Potential of Pseudomonas putida Fu1 to Prevent Toxic Runoff Into Water Supplies
1080	Anushua Bhattacharya	Grade 12	Toxicity of Ag and Au Nanoparticles on Shewanella Oneidensis
1082	Emily Chen	Grade 10	Low Cost Biosorbent for Heavy Metal Removal
1084	Angel E Harding, Alicia M Jourdain	Grade 12	Polychlorinated biphenyl in Minnesota Metro Area Wetlands

1085	Ryan C Pinkalla	Grade 12	Whitetail Deer Management Affects On Browsable Plant Material
1090	Apurv H Shekhar	Grade 10	Location, Location, Capacity: K-Means Clustering with Capacity Constraints
1092	Roy Zhao	Grade 11	New Models for Tat Dynamics
1093	Redeat F Abegaz, Quyên Nguyen	Grade 11	The Effectiveness of Cisplatin, Phosphoramidate Mustard, and the Combination of the Two as Chemotherapeutic Agents on Non-Small Lung Cancer Cells A549
1098	Jenny Lai	Grade 11	The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care
1099	Paimon Y Pakzad	Grade 12	A Systems Biology Approach to Inducing Bacteriostatic Effects on <i>M. Exorquens</i>
1101	Mahati Pidaparti	Grade 12	Early Studies on Interactions Between Novel Proteins Found in a Macromolecular Metabolic Complex in Leukemia Cells
1103	Jessica Rylvlin, Claire M Simpson	Grade 11	Mercaptopyruvate-TEA: A Possible Antidote Against Homeland Security Threats of Chlorine Poisoning
1106	Roshny Vijayakar	Grade 12	Food for Thought: Perinatal Iron Deficiency and the Brain
1107	William Zeng, Orien Zeng	Grade 10	Deletion of <i>Ndst1</i> in Smooth Muscle Decreases Aortic Wall Area and Vascular Smooth Muscle Cell Count
1108	Aditi Das	Grade 10	Cell Polarity in Bacteria: Analysis Using Green Fluorescent Protein Fusions
1110	Naveen Jain	Grade 12	Mechanism of Tumor Suppression by CHD5: Phase Two
1111	Yan Jiao	Grade 12	Factors That Affect the Spread of Food-borne Multidrug-resistant <i>Escherichia coli</i>
1113	Keshav K Mangalick	Grade 12	Genetic Characteristics of Influenza A Viruses in Swine Populations
1116	Duligur Ibeling	Grade 12	The Metallicity-Dependent Transition between White Dwarfs and Type II Supernovae
1117	Sibi S Murugesan	Grade 12	Visual Identification of Muon Neutrino Interactions in the NOvA Detector Prototype
1125	Tom Vennemann	Grade 12	Projecting Particles
1126	Andy Ylitalo	Grade 11	The Total Displacement Cross Section of Hexagonal Boron Nitride Monolayers
1127	Krista E Bain	Grade 10	Thrive or Survive? An analysis of water type on the growth of hydroponically grown <i>Lycopersicon Lycopersicum</i> .
1132	Bonssa Teizazu	Grade 10	The Effect of Differentiating pH Water Solutions on the Growth Rate of the <i>Hedera Helix</i> Plant Species
6001	Sarah Betts	Grade 6	Memory Development and Myelin Growth
6020	Thomas S Hayden	Grade 6	Does the Amount of Hydrogen Peroxide Affect the Amount of Foam Produced?
6031	Andrew L Barton	Grade 6	Volcanic Rocks on the North Shore: Fact or Fiction?
6032	Lauren M Copland	Grade 6	Pop Goes the Geyser

6038	Zachary Schuster	Grade 6	How does the angle of a windmill blade affect the energy produced?
6039	Samuel J Goaley	Grade 6	Are CFL Light Bulbs Worth The Cost
6048	Ava M Stende Miss.	Grade 6	The New Insulation Creation: Kenaf
6055	Adam J Burke	Grade 6	Does Cold Water Affect Reaction Times?
6087	Sophie N Oubaha	Grade 6	Wich fertilizer helps mint plant grow the most?
7005	Carson L Knoer	Grade 7	Can the Aquatic Invasive Species Known As Chinese Mytery Snails Survive Up To 21 Days Out Of Water
7006	Sophia Poppert	Grade 7	Dog Paw Preference
7009	Abigail P Cavanaugh Ms.	Grade 7	"Does Sniffing Peppermint or Cinnamon Affect Caloric Intake?"
7013	William S. Gomes	Grade 7	Does Movie Artwork Affect Viewer Attention?
7033	Imogene J Silver	Grade 7	Death of an Orange
7034	Carolyn Grausam	Grade 7	Green Clean vs. Chemical Clean
7047	Claire M Hollingsworth	Grade 7	"Which Tastes Better in Smoothies Fresh or Frozen Fruit?"
7048	Serena Jing	Grade 7	From Trash to Cash: Generating Fuel from Aluminum Waste
7057	Richard L Thompson	Grade 7	Which detergent is capital at removing stains?
7062	Bengt A Fredrickson	Grade 7	Dinner getting cold? Problem solved?
7064	Iris C Holman	Grade 7	How Wing Design Affects Lift
7074	Andrew S Krummen	Grade 7	Is Bright Light the Right Light?
7079	Grace L Gardner	Grade 7	Cracked! A Test on the Durability of Nail Polish
7080	Duncan M Ince	Grade 7	Metal Shock Force
7095	Euphrosyne Daoutidou	Grade 7	Heart Rate Recovery Times
7097	Nathaniel R Farmer	Grade 7	Children's Exposure to Black Carbon Pollution in a Suburban School Setting
7099	Sovigne Gardner	Grade 7	Meditation vs. Relaxation: the effects of meditation on heart rate recovery
7108	Marie X Wulff	Grade 7	Beverages and Blood Sugar
7111	Michael King	Grade 7	What's That Smell?
7114	Noah M Rooze	Grade 7	Is Raw Milk Safe?
7117	Greg P Dobihal, Sam J Henkes	Grade 7	Fruits VS Vegetables
7127	Griffin D Lawton	Grade 7	Maglev Train versus Wheeled Train
7138	Annie M Amen	Grade 7	Tomato Grafting: The Fruit of the Future
7139	Jesse Caldwell- Tautges	Grade 7	Do Plants Like Caffeine?
7144	Theo J Schmidt	Grade 7	Heat, Steam, Pop!: Measuring Popcorn Moisture Levels

7152	Andrew M Weigel	Grade 7	Oat Processing
8001	Emma Faust	Grade 8	Dogs-Lefties or Righties?
8017	Jacob A Shirk	Grade 8	A Colored Memory
8030	Lia Viola Chin-Purcell	Grade 8	How Does The Amount of Silica in a Clay Body Affect the Amount it Shrinks
8041	Tyler S Radtke	Grade 8	The Cool Blue Light of Luminol: How Does Temperature Affect the Chemiluminescence Created by Luminol?
8049	Owen M Donnelly	Grade 8	Growing Soybeans with River Water
8057	Jordan D Thompson	Grade 8	Hydropower versus Wind Power
8060	Max Ylitalo	Grade 8	Power up! Wind Turbine Design Optimization
8061	Michael T Maloney, Joseph N Wappes	Grade 8	Nerf Gun
8073	Angela R Yarusso	Grade 8	Get A Grip
8077	Arush Jain	Grade 8	Investigation of Renewable Energy Generation from Untapped Heat Sources
8078	Hunter Johnson	Grade 8	How Does The Change In Pond Size, Oxygen, Carbon Dioxide, Temperature, And pH Affect The Concentration Of Microorganisms In A Pond Over The Course Of A Summer?
8084	Patrick L Votel	Grade 8	A Slick Problem
8088	Michelle Mao	Grade 8	Get Cubed: Optimized Algorithm Solution for Rubik's Cube
8091	Madison R Huna	Grade 8	Cinnamon Spice and Everything Nice: The Effect of Cinnamon on Lifespan of <i>Caenorhabditis elegans</i>
8095	Mary C. McConville	Grade 8	In What Soils are Parasitic Ova Most Commonly Found?
8106	Carolyn K Jons	Grade 8	The Effect of Oxygen Removal Treatments on Mold Growth of Blueberries
8109	Daniel J Rockcastle	Grade 8	A HANDS ON BUSINESS: CAN NATURAL HAND SANITIZERS WORK AS WELL AS STORE BOUGHT ONES TO PREVENT THE SPREAD OF DISEASE?
8124	Matthew Munkelwitz	Grade 8	Solar Panel Angle Efficiency
8126	Sophie Perron	Grade 8	Singing Dry Ice
8132	Isak L Bowron	Grade 8	Does Radiation Affect the Growth of Plants?
8136	Audrey M Sheehy	Grade 8	Ionized Hydroponics vs. Ionized Aeroponics Vs. Aeroponics

The Broadcom MASTERS (Math, Applied Science, Technology and Engineering for Rising Stars), Society for Science & the Public

Top grade 6-8 students nominated to compete nationally online where they will explain their science project and demonstrate their use of STEM principles - science, technology, engineering and math - in the development and presentation of their project.

Twin Cities

8084	Patrick L Votel	Grade 8	A Slick Problem
8060	Max Ylitalo	Grade 8	Power up! Wind Turbine Design Optimization
7097	Nathaniel R Farmer	Grade 7	Children's Exposure to Black Carbon Pollution in a Suburban School Setting
8041	Tyler S Radtke	Grade 8	The Cool Blue Light of Luminol: How Does Temperature Affect the Chemiluminescence Created by Luminol?
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7009	Abigail P Cavanaugh Ms.	Grade 7	"Does Sniffing Peppermint or Cinnamon Affect Caloric Intake?"
6039	Samuel J Goaley	Grade 6	Are CFL Light Bulbs Worth The Cost
8073	Angela R Yarusso	Grade 8	Get A Grip
6055	Adam J Burke	Grade 6	Does Cold Water Affect Reaction Times?
7117	Greg P Dobihal, Sam J Henkes	Grade 7	Fruits VS Vegetables
7152	Andrew M Weigel	Grade 7	Oat Processing

Western Suburbs

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7127	Griffin D Lawton	Grade 7	Maglev Train versus Wheeled Train
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7095	Euphrosyne Daoutidou	Grade 7	Heart Rate Recovery Times

St. Paul

6087	Sophie N Oubaha	Grade 6	Wich fertilizer helps mint plant grow the most?
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7033	Imogene J Silver	Grade 7	Death of an Orange
8078	Hunter Johnson	Grade 8	How Does The Change In Pond Size, Oxygen, Carbon Dioxide, Temperature, And pH Affect The Concentration Of Microorganisms In A Pond Over The Course Of A Summer?
7108	Marie X Wulff	Grade 7	Beverages and Blood Sugar

Top Ranking High School Papers

Grades 9-12

1st Place HS Research Paper Trophy

107	Alejandro J Fenn, Andrew Engel	Grade 12	Engineering an Optical Cell to Determine Dissolution and Re-plating Rates of Metal-particle Contaminants in Lithium-ion Batteries
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2nd Place HS Research Paper Trophy

114	Alexander Spencer, Evan Chen	Grade 12	Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production
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3rd Place HS Research Paper Trophy

160	Jenny Lai	Grade 11	The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care
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High School Research Papers Selected for Competition at the Tri-State Junior Science and Humanities Symposium

North Central JSHS, March 17-18, 2012

103	Robert S Dorn, Saeed Hakim-Hashemi	Grade 12	The Future of Lighting: Improving the efficiency of organic light-emitting diodes (OLEDs)
107	Alejandro J Fenn, Andrew Engel	Grade 12	Engineering an Optical Cell to Determine Dissolution and Re-plating Rates of Metal-particle Contaminants in Lithium-ion Batteries
109	Maxwell M Johnson	Grade 10	The Effects of Altering the Various Dimensions of the Wing Appendage on Fixed Wing Aircraft
111	Samuel K Porter	Grade 10	Propeller Diameters Effect on Efficiency
114	Alexander Spencer, Evan Chen	Grade 12	Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production
125	Bonssa Teizazu	Grade 10	The Effect of Differentiating pH Water Solutions on the Growth Rate of the Hedera Helix Plant Species
129	Mackenzie L Larson	Grade 10	Early Growth Rate in Organic vs. Non-Organically Fed Chickens
138	Keshav K Mangalick	Grade 12	Genetic Characteristics of Influenza A Viruses in Swine Populations
139	Rishi Sinha	Grade 12	Investigating the Effects of Overexpression of the HIF-2 α Gene in Cancer Cells
140	Aditi Das	Grade 10	Cell Polarity in Bacteria: Analysis Using Green Fluorescent Protein Fusions
141	Ishmam A Ahmed	Grade 12	The Efficacy of Insulin Production By "Reprogrammed" Induced Pluripotent Stem Cells—Novel Developments
142	Naveen Jain	Grade 12	Mechanism of Tumor Suppression by CHD5
149	Samarth A Damania	Grade 12	A Data-mining Approach to Identify Factors that Contribute to High Pharmaceutical Drug Costs
160	Jenny Lai	Grade 11	The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care
174	Thatcher Banh, Sierra M Adrian	Grade 12	Modulation of the M394L and M394Q Myosin Mutations by Oxidation
175	Jenna L Allen	Grade 10	Music and How It Affects Cognitive Thinking and Concentration
178	Samantha D Gray	Grade 10	Lie to Me: The Complications of Lie Detection
179	Ryan J Kibler	Grade 10	Does Caffeine Affect Productivity of the Heart?
180	Alexis R Dobrzynski	Grade 10	The Correlation of BMI and Body Temperature in Sophomore Males and Females
182	Alyssa C Muelken	Grade 10	Do Boys or Girls Score Higher on Math Tests?
185	Courtney A Fischer	Grade 10	The Effects of Exercise on Blood Pressure in High School Students
187	Laura S Landgraf, Maggie M Green	Grade 12	The Development of Visual Self-Recognition in Toddlers Through Mirror Reflections and Photographs

194	Redeat F Abegaz, Quyen Nguyen	Grade 11	The Effectiveness of Cisplatin, Phosphoramidate Mustard, and the Combination of the Two as Chemotherapeutic Agents on Non-Small Lung Cancer Cells A549
195	Anna M Hendrickson, Eva Wang	Grade 12	Interaction of Cyclin D1 and PPAR α in Cancer Cell Metabolism
196	Aris E Prince	Grade 12	A Three-generational Study on Knowledge about and Sources Used to Find Information on Brain-related Conditions
197	Yan Jiao	Grade 12	Effects of Conjugation Efficiency and Fitness Cost on the Propensity of <i>E. coli</i> to Gain and Maintain Multidrug Resistance in Solid and Liquid Environments
199	Jessica Ryvlin, Claire M Simpson	Grade 11	Mercaptopyruvate-TEA: a possible antidote against threats of chlorine-induced lung injury
200	Paimon Y Pakzad	Grade 12	A Systems Biology Approach to Inducing Bacteriostatic Effects on <i>M. Extorquens</i>
202	Anushua Bhattacharya	Grade 12	In-Vitro Toxic Assessment of Noble Metal Nanoparticles on Mammalian and Bacterial Cells
203	Bhargavi Papisetty	Grade 10	Forecasting Corn Prices in India using ARIMA Model
205	William Zeng, Orien Zeng	Grade 10	Deletion of <i>Ndst1</i> in Smooth Muscle Decreases Aortic Wall Area and Vascular Smooth Muscle Cell Count
206	Mahati Pidaparti	Grade 12	Early Studies on Interactions Between Novel Proteins Found in a Macromolecular Metabolic Complex in Leukemia Cells
207	Roshny Vijayakar	Grade 12	Effects of Perinatal Iron Deficiency on Glucose Transporter Gene Expression in Five Regions of the Brain
220	Scott A Svare	Grade 10	The Effects of ADHD on Reaction Time
237	Andy Ylitalo	Grade 11	The Total Displacement Cross Section of Hexagonal Boron Nitride Monolayers
238	Duligur Ibeling	Grade 12	The Metallicity-Dependent Transition between White Dwarfs and Type II Supernovae
240	Nathaniel A Breitenfeldt	Grade 12	Characterizing spectroscopic properties of a new coumarin amino-acid dye for use in protein analyses
241	Partha Naidu	Grade 12	Characterization and Application of Pseudoisocyanine-Iodide in Optical Devices

Top Ranking Middle School Papers

Grades 6-8

1st Place MS Research Paper Trophy

515	Carolyn K Jons	Grade 8	The Effect of Oxygen Removal Treatments on Mold Growth of Blueberries
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2nd Place MS Research Paper Trophy (tie)

507	Cece Johnson	Grade 8	When Compared To Untreated Wood, Will Wood Treated With Creosote Contaminate The Soil, Water, And Plants In Raised Garden
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Beds?

505 Iris C Holman Grade 7 How Wing Design Affects Lift

3rd Place MS Research Paper Trophy (tie)

522 Sarah Betts Grade 6 Memory Development and Myelin Growth

524 Madison R Huna Grade 8 Cinnamon Spice and Everything Nice: The Effect of Cinnamon on Lifespan of *C. elegans*

Middle School Research Papers Selected for Competition at the Minnesota State Science & Engineering Fair

Symposium style presentation of research papers grades 7-8 - March 20-22, 2011

505 Iris C Holman Grade 7 How Wing Design Affects Lift

507 Cece Johnson Grade 8 When Compared To Untreated Wood, Will Wood Treated With Creosote Contaminate The Soil, Water, And Plants In Raised Garden Beds?

508 Hunter Johnson Grade 8 How Does The Change In Pond Size, Oxygen, Carbon Dioxide, Temperature, And pH Affect The Concentration Of Microorganisms In A Pond Over The Course Of A Summer?

509 Seamus Flynn Grade 7 A Clean Drink of Water?

514 Audrey M Sheehy Grade 8 Ionized Hydroponics vs. Ionized Aeroponics Vs. Aeroponics

515 Carolyn K Jons Grade 8 The Effect of Oxygen Removal Treatments on Mold Growth of Blueberries

518 Caleb E Venkatrathnam Grade 7 RAM and Computer Performance

519 Nathaniel R Farmer Grade 7 Children's Exposure to Black Carbon Pollution in a Suburban School Setting

522 Sarah Betts Grade 6 Memory Development and Myelin Growth

524 Madison R Huna Grade 8 Cinnamon Spice and Everything Nice: The Effect of Cinnamon on Lifespan of *C. elegans*

525 Abigail P Cavanaugh Ms. Grade 7 "Does Sniffing Peppermint or Cinnamon Affect How Hungry You Feel and Your Caloric Intake?"

Project Medalist**6th Grade Project Medalist**

6001 Sarah Betts Grade 6 Memory Development and Myelin Growth

6087 Sophie N Oubaha Grade 6 Wich fertilizer helps mint plant grow the most?

6048 Ava M Stende Miss. Grade 6 The New Insulation Creation: Kenaf

6031 Andrew L Barton Grade 6 Volcanic Rocks on the North Shore: Fact or Fiction?

6032 Lauren M Copland Grade 6 Pop Goes the Geyser

6039	Samuel J Goaley	Grade 6	Are CFL Light Bulbs Worth The Cost
6055	Adam J Burke	Grade 6	Does Cold Water Affect Reaction Times?
6020	Thomas S Hayden	Grade 6	Does the Amount of Hydrogen Peroxide Affect the Amount of Foam Produced?
6038	Zachary Schuster	Grade 6	How does the angle of a windmill blade affect the energy produced?
6012	Ellie A Scheid	Grade 6	The Memory Duel
6050	Grace E Kopischke	Grade 6	Furnace Filters: Does Price Matter?
6062	Bergen Kobienia	Grade 6	My Mom Thinks I Stink!

3M Renewable Energy Award

plaque and \$100.

High School - 3M Renewable Energy

1063	Maxwell M Johnson	Grade 10	The Effects of Altering the Various Dimensions of the Wing Appendage on Fixed Wing Aircraft
1054	Carissa E Kloncz	Grade 12	Revamping the World's Energy Sources One Crop at a Time: Phase II

Middle School - 3M Renewable Energy

8077	Arush Jain	Grade 8	Investigation of Renewable Energy Generation from Untapped Heat Sources
8060	Max Ylitalo	Grade 8	Power up! Wind Turbine Design Optimization
7064	Iris C Holman	Grade 7	How Wing Design Affects Lift

Teacher Excellence Award

Elizabeth Olson, Achieve Language Academy, St. Paul

Teacher Excellence Award

Princesa VanBuren Hansen

American Chemical Society

- Certificate & cash

1043	Partha Naidu	Grade 12	Characterization and Application of Pseudoisocyanine-Iodide in Optical Devices
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American Chemical Society

- Certificate

1045	Selam A Tefatsion	Grade 10	What Factors Affect The Electrolysis of Different Types of Water?
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American Council of Engineering Companies of Minnesota (ACEC)

Overall Grand Award

calculator

1064 Taylor S Grade 12 Engineering an Inexpensive Mobile Electric Field Mill to Measure
McCanna the Global Electric Circuit to Track Global Climate Change

Honor Award

6037	Joe C. McConville	Grade 6	Energy Output of Wind Generators Based on Geographical Location
6048	Ava M Stende Miss.	Grade 6	The New Insulation Creation: Kenaf
6076	David A Jaksha	Grade 6	3 ... 2 ... 1 ... Liftoff
7081	Amy C Vievering	Grade 7	Which Housing Material is the Best Insulator-Brick, Stucco, Wood Shakes, or Vinyl Siding?
7120	Alexander James Hoover	Grade 7	What uses less energy an Incandescent light, Fluorescent light, LED light, or a Candle?
8057	Jordan D Thompson	Grade 8	Hydropower versus Wind Power
8065	Carly C Zimmerman	Grade 8	Rovers: To Boldly Go [Without Stopping] Where No Man has Gone Before
8122	Shamus McGovern	Grade 8	Load Test on the Throgh Warten Truss Bridge
1053	Robert S Dorn, Saeed Hakim-Hashemi	Grade 12	The Future of Lighting: Improving the efficiency of organic light-emitting diodes (OLEDs)
1067	Alexander Spencer, Evan Chen	Grade 12	Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production

American Meteorological Society Award

Certificates for outstanding achievements in Meteorological Science

American Meteorological Society Grand Award

Radio and certificate for outstanding achievements in meteorological science

6032 Lauren M Copland Grade 6 Pop Goes the Geyser

Twin Cities

8057 Jordan D Thompson Grade 8 Hydropower versus Wind Power

Western Suburbs

6032 Lauren M Copland Grade 6 Pop Goes the Geyser

8051 Nina Loutchko Grade 8 Geysers

St. Paul

6037 Joe C. Grade 6 Energy Output of Wind Generators Based on Geographical

	McConville		Location
6038	Zachary Schuster	Grade 6	How does the angle of a windmill blade affect the energy produced?

American Psychological Association Award

Certificate

Twin Cities

1008 Laura Garbe Grade 11 Variables in Physical Performance

Western Suburbs

1019 Aris E Prince Grade 12 A Three-generational Study on Knowledge about and Sources Used to Find Information on Brain-related Conditions

St. Paul

1025 Daria Terenteva Grade 11 Comparison of human and situational cues on the perception of infrasound

ASM International Materials Education Foundation Award

Certificate & medallion (In the mail) recognizing the best materials engineering project

Twin Cities

7152 Andrew M Weigel Grade 7 Oat Processing

Western Suburbs

1074 Sam M Weiss Grade 11 Granular Segregation Patterns in a Rotating Drum

St. Paul

7077 Jarod G Davis Grade 7 Bullet Proof Protection

Association of Women Geoscientists

Certificate to female whose project exemplifies high standards of innovativeness and scientific excellence in geosciences

Twin Cities

7145 Anachie Elizabeth Stueve Grade 7 Water Temperature Affects On Plant Growth

Western Suburbs

8083 Paige D. Piper-Hauswirth Grade 8 Does the Type of Plant Affect the Amount of Biomass Produced

St. Paul

8079 Cece Grade 8 When Compared To Untreated Wood, Will Wood Treated With

Johnson

Creosote Contaminate The Soil, Water, And Plants In Raised Garden Beds?

East Side Science Club Alumni Award

Medals are presented to outstanding youths that demonstrate innovation and creativeness in project development

6031	Andrew L Barton	Grade 6	Volcanic Rocks on the North Shore:Fact or Fiction?
6047	Clay D Vizenor, Wyatt J Nelson	Grade 6	What type of fishing line is the strongest?
6020	Thomas S Hayden	Grade 6	Does the Amount of Hydrogen Peroxide Affect the Amount of Foam Produced?
7052	Vanessa Manzanares	Grade 7	Best Syrup Temperature for Penny Movement
7077	Jarod G Davis	Grade 7	Bullet Proof Protection
7131	Donovan Peterson	Grade 7	Catapult vs. Trebuchet
7068	Camille Romero	Grade 7	Pinwheel Windmill
8001	Emma Faust	Grade 8	Dogs-Lefties or Righties?
8005	Helen Palmer	Grade 8	Doggie Dooty
8034	Gina S Jostes	Grade 8	How Do Gummybears Compare to Other Adhesives?
8126	Sophie Perron	Grade 8	Singing Dry Ice

FROG Impact Award

In honor of Penny Lohman & her science fair legacy

HS-

in medicine & health

1098	Jenny Lai	Grade 11	The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care
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MS

showing dedication & enthusiasm in science

8126	Sophie Perron	Grade 8	Singing Dry Ice
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Glen & Jacob Domeier Memorial Award

In memory of Glen & Jacob Domeier, \$50, Compass and use book to project that best demonstrates excellence in environmental science

1071	Felicia Y Hamann	Grade 11	Producing Water Out of Thin Air
7138	Annie M Amen	Grade 7	Tomato Grafting: The Fruit of the Future

Graduate Women In Science Award

University of Minnesota Graduate Women in Science: Certificate and \$25 (in the mail)

Grade 6

6032	Lauren M Copland	Grade 6	Pop Goes the Geyser
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Grade 7

7034 Carolyn Grausam Grade 7 Green Clean vs. Chemical Clean

Grade 8

8073 Angela R Yarusso Grade 8 Get A Grip

Grade 9

1006 Diamond C Dionne Grade 9 Bullying and Race

Grade 10

1073 Heather J Stone Grade 10 Developing A New Seeder For Small African Grains

Grade 11

1098 Jenny Lai Grade 11 The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care

Grade 12

1101 Mahati Pidaparti Grade 12 Early Studies on Interactions Between Novel Proteins Found in a Macromolecular Metabolic Complex in Leukemia Cells

Integrated Approach to Science

\$50 cash, certificate, and book

High School

1006 Diamond C Dionne Grade 9 Bullying and Race

1015 Bhargavi Papisetty Grade 10 Forecasting Corn Prices in India using ARIMA Model

1026 Jeremiah Worley Grade 11 Alleviating Math Test Anxiety With Music

Middle School

6007 Elizabeth A Kruchten Grade 6 Doodle Memory

8048 Craig A Munson JR Grade 8 Virtual VS. Traditional Classrooms

7019 Siena I Milbauer Grade 7 Does Playing a Musical Instrument Affect Relative Pitch?

Intel Excellence in Computer Science Award

Certificate and \$200 (check in the mail)

Twin Cities

1049 Ben McConnell Grade 9 Can You Build a Computer for \$100 or Less

Western Suburbs

1048 Caleb J Kumar Grade 11 Designing and Validating a Java program to Improve the Diagnosis of Bladder Cancer: Year 2

St. Paul

Inventor Award

Book signed by author, Doug Cornelius, "Good News - I Failed: A Story of Inventing in Minnesota." - a tribute to author's father, Richard Cornelius & 80 other Minnesota inventors

8058	Lisa I Torstenson	Grade 8	Preheating Water With Compost
7149	Brian D Turner	Grade 7	How do electromagnetic waves affect the germination of beans?
7070	Al A Subramanian	Grade 7	Solar Oven: Importance Of Design
7048	Serena Jing	Grade 7	From Trash to Cash: Generating Fuel from Aluminum Waste
1067	Alexander Spencer, Evan Chen	Grade 12	Recycling Waste Heat: Development of a Low-cost Thermoelectric Generator for Off-grid Energy Production
8091	Madison R Huna	Grade 8	Cinnamon Spice and Everything Nice: The Effect of Cinnamon on Lifespan of <i>Caenorhabditis elegans</i>

ISEF Alumni Awards

Former ISEF Finalists recognizing up-and-coming young scientists

Sponsor: Michael Lohman, Jr

One hour in Flight Simulator

7119 Andrew C Hienz Grade 7 Near Space Flight

Sponsor: Kyrstin Underbakke

Certificate & \$20 cash

7005 Carson L Grade 7 Can the Aquatic Invasive Species Known As Chinese Mytery Snails
Knoer Survive Up To 21 Days Out Of Water

Sponsor: Kyra Underbakke

Certificate & \$20 cash

6001 Sarah Betts Grade 6 Memory Development and Myelin Growth

Sponsor: Timara Underbakke

Certificate & \$20 cash

6031 Andrew L Grade 6 Volcanic Rocks on the North Shore: Fact or Fiction?
Barton

8091 Madison R Grade 8 Cinnamon Spice and Everything Nice: The Effect of Cinnamon on
Huna Lifespan of *Caenorhabditis elegans*

Caffeinated Student Award Sponsor: Kyra Underbakke

Starbucks gift card

1034 Nathaniel A Grade 12 Characterizing spectroscopic properties of a new coumarin
Breitenfeldt amino-acid dye for use in protein analyses

- | | | | |
|------|-----------------------------|----------|--|
| 1107 | William Zeng,
Orien Zeng | Grade 10 | Deletion of Ndst1 in Smooth Muscle Decreases Aortic Wall Area and Vascular Smooth Muscle Cell Count |
| 1101 | Mahati Pidaparti | Grade 12 | Early Studies on Interactions Between Novel Proteins Found in a Macromolecular Metabolic Complex in Leukemia Cells |

ISWEEEP

Outstanding Projects to Participate in International Sustainable World (Energy, Engineering, & Environment) Project Olympiad; Houston, TX, May 4-9, 2011

ISWEEEP Finalists, May 2-7, 2012 in Houston, TX

These projects bypass the prequalification round of ISWEEEP. 2012 Airfare paid for student by TCRSF if student flies with TCRSF group

- | | | | |
|------|---------------------|----------|---|
| 1077 | Ellen J
Soskin | Grade 12 | Bioremediation Potential of Pseudomonas putida Fu1 to Prevent Toxic Runoff Into Water Supplies |
| 1069 | Nyle N
Enright | Grade 12 | Grinding for a Finish! |
| 1127 | Krista E
Bain | Grade 10 | Thrive or Survive? An analysis of water type on the growth of hydroponically grown Lycopersicon Lycoperscium. |
| 1086 | Taylor J
Swingle | Grade 10 | Light Pollution Around Cities |
| 1073 | Heather J
Stone | Grade 10 | Developing A New Seeder For Small African Grains |

Recommended to Compete at ISWEEEP

These projects are recommended to apply to compete at ISWEEEP.

- | | | | |
|------|---------------------|----------|---|
| 1071 | Felicia Y
Hamann | Grade 11 | Producing Water Out of Thin Air |
| 1081 | Arnoldo Bruce | Grade 11 | NaCl Tolerance of Two Ribbon Leeches: Nephelopsis obscura and Erpobdella punctata |

Joel Wagner Caring Bridge Award

Trophy & \$50 to the best cancer research project

- | | | | |
|------|-------------|----------|---|
| 1110 | Naveen Jain | Grade 12 | Mechanism of Tumor Suppression by CHD5: Phase Two |
|------|-------------|----------|---|

Killeen Memorial Award

Trophy to the student who best shows inspiration for their project

- | | | | |
|------|---------------|---------|-----------------|
| 8126 | Sophie Perron | Grade 8 | Singing Dry Ice |
|------|---------------|---------|-----------------|

Minnesota Agriculture in the Classroom

Certificate & \$75 check in the mail

Project Senior High

- | | | | |
|------|--------------------|----------|--|
| 1015 | Bhargavi Papisetty | Grade 10 | Forecasting Corn Prices in India using ARIMA Model |
|------|--------------------|----------|--|

Project Junior High

- 8049 Owen M Donnelly Grade 8 Growing Soybeans with River Water
 7144 Theo J Schmidt Grade 7 Heat, Steam, Pop!: Measuring Popcorn Moisture Levels
 6053 Samuel L Warner Grade 6 Water Filtration: What Type of Soil Filters Water Best

Paper Senior High

- 129 Mackenzie L Larson Grade 10 Early Growth Rate in Organic vs. Non-Organically Fed Chickens

Minnesota Astronomical Society

- certificate & prize packet

- 7130 Taja M Nehotte Grade 7 Does the Size of a Pulsar Influence Its Radiation?
 8010 Jordan Maltese Grade 8 Is the Moon Illusion Greater on Dark or Light Walls?
 1086 Taylor J Swingle Grade 10 Light Pollution Around Cities
 1116 Duligur Ibeling Grade 12 The Metallicity-Dependent Transition between White Dwarfs and Type II Supernovae

Minnesota Chapter of American Fisheries Society

Senior High

- Book

- 1076 Iman Pakzad Grade 10 Milfoil Tendrils and Tropisms

Senior High

- Fishing Equipment

- 1084 Angel E Harding, Alicia M Jourdain Grade 12 Polychlorinated biphenyl in Minnesota Metro Area Wetlands

Junior High

- Book & Fishing equipment

- 7005 Carson L Knoer Grade 7 Can the Aquatic Invasive Species Known As Chinese Mytery Snails Survive Up To 21 Days Out Of Water

Minnesota Space Frontier Society Award

- certificate & prize packet

- 6076 David A Jaksha Grade 6 3 ... 2 ... 1 ... Liftoff
 6077 Addison R Keely Grade 6 Rocket Noses
 7064 Iris C Holman Grade 7 How Wing Design Affects Lift
 7089 Mark A Leinberger Grade 7 The Effects of Pollution on Solar Cell Productivity
 7119 Andrew C Hienz Grade 7 Near Space Flight

7133	Stephanie V Roberts	Grade 7	how does the surface area of canards affect the trajectory flight of a rocket?
7136	Amelia R Walker	Grade 7	Speed of Sound
8053	Marcelus J Ifonlaja	Grade 8	Testing Bernoulli's Principle Using Wing Shapes
8065	Carly C Zimmerman	Grade 8	Rovers: To Boldly Go [Without Stopping] Where No Man has Gone Before
8129	Isaiah Skinner, Arnel A Johnson	Grade 8	Water Bottle Rockets
8134	Nikls Cherxa Chang, Thomas Moua	Grade 8	Can plants grow upside down?
8136	Audrey M Sheehy	Grade 8	Ionized Hydroponics vs. Ionized Aeroponics Vs. Aeroponics
1052	Tanner L Hansen	Grade 9	How do Plants Grow When the Direction of Gravity Changes?
1063	Maxwell M Johnson	Grade 10	The Effects of Altering the Various Dimensions of the Wing Appendage on Fixed Wing Aircraft
1064	Taylor S McCanna	Grade 12	Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change
1124	Phongxo Thao	Grade 9	Its a bird, its a plane, its a paper airplane??
1127	Krista E Bain	Grade 10	Thrive or Survive? An analysis of water type on the growth of hydroponically grown Lycopersicon Lycoperscium.

Mu Alpha Theta Award

- Certificate for the project demonstrating the most challenging, original, thorough, and creative investigation of a problem involving mathematics

Twin Cities

1088 Christopher K Larsson Grade 10 Derivatives in Real Life

Western Suburbs

1092 Roy Zhao Grade 11 New Models for Tat Dynamics

St. Paul

1125 Tom Vennemann Grade 12 Projecting Particles

National Society of Professional Engineers

- Certificate & lapel pin & chance for \$1000 (national) to the most outstanding innovative engineering project

Twin Cities

8060 Max Ylitalo Grade 8 Power up! Wind Turbine Design Optimization

Western Suburbs

7073 Anthony L Jurek Grade 7 Trebuchets and How They Work

St. Paul

8079 Cece Johnson Grade 8 When Compared To Untreated Wood, Will Wood Treated With Creosote Contaminate The Soil, Water, And Plants In Raised Garden Beds?

National Oceanic and Atmospheric Administration (NOAA) "Taking the Pulse of the Planet"

- Certificate & medallion

Twin Cities

1054 Carissa E Kloncz Grade 12 Revamping the World's Energy Sources One Crop at a Time: Phase II

Western Suburbs

1077 Ellen J Soskin Grade 12 Bioremediation Potential of Pseudomonas putida Fu1 to Prevent Toxic Runoff Into Water Supplies

St. Paul

8058 Lisa I Torstenson Grade 8 Preheating Water With Compost

Outstanding Volunteerism Award (Nokomis Club) - 2011 for their plaque and many, many, many thanks for their hard work!

Penny Lohman Memorial Award

Grand award \$50

6031 Andrew L Barton Grade 6 Volcanic Rocks on the North Shore:Fact or Fiction?

Memorial Awards in Microbiology, Earth & Space Science, & Medicine & Health

7055 Gracey B Scott Grade 7 Does The Color Of The Crystal Affect Its Growth?

8052 Jared J McNiff Grade 8 The Effect of Different Liquids on Limestone Erosion

1101 Mahati Pidaparti Grade 12 Early Studies on Interactions Between Novel Proteins Found in a Macromolecular Metabolic Complex in Leukemia Cells

1098 Jenny Lai Grade 11 The Relationship of Cognitive Assessed Abilities to Errors in Instrumental Activities of Daily Living of Adults in Memory Care

1104 Aswin Somasundaram Grade 12 Systemic Effect of Hypothermic Conditions in Bypass Surgery

Radio City Award

- Awarded to Best Amateur Radio project

7093 Olivia L Rossman Grade 7 Are Cell Phone Dangerous?

8105 Katherine Hughes Grade 8 Does Cell Phone Radiation Cause Damage to Brain Cells (Yeast)?

8120 Daniel Kiely Grade 8 Electro-Magnetics

8132 Isak L Bowron Grade 8 Does Radiation Affect the Growth of Plants?

1122 Cory B Spawn Grade 9 Which type of Yagi antenna works the best?

1125 Tom Vennemann Grade 12 Projecting Particles

Ricoh Sustainable Development Award

- Certificate to the project whose principles & technical innovations offer the greatest potential for increasing our ability to grow environmentally friendly & socially responsible businesses

Twin Cities

7089 Mark A Leinberger Grade 7 The Effects of Pollution on Solar Cell Productivity

Western Suburbs

1082 Emily Chen Grade 10 Low Cost Biosorbent for Heavy Metal Removal

St. Paul

7086 Seamus Flynn Grade 7 A Clean Drink of Water?

Society for In Vitro Biology

- Certificate to the most outstanding 11th grade student in the area of plant or animal in vitro biology or tissue culture

Twin Cities

1093 Redeat F Abegaz, Quyen Nguyen Grade 11 The Effectiveness of Cisplatin, Phosphoramidate Mustard, and the Combination of the Two as Chemotherapeutic Agents on Non-Small Lung Cancer Cells A549

Western Suburbs

St. Paul

Stockholm Junior Water Prize (SJWP)

- Certificate & eligible to enter the state SJWP competition by submitting their research paper

Twin Cities

1017	Anastasia P Pinney-Valtierra	Grade 9	Trash
1127	Krista E Bain	Grade 10	Thrive or Survive? An analysis of water type on the growth of hydroponically grown <i>Lycopersicon Lycoperscium</i> .
1132	Bonssa Teizazu	Grade 10	The Effect of Differentiating pH Water Solutions on the Growth Rate of the <i>Hedera Helix</i> Plant Species

Western Suburbs

1071	Felicia Y Hamann	Grade 11	Producing Water Out of Thin Air
1072	Emily Hannigan	Grade 12	Collecting Gas-Phase Silica Nanoparticles Into Liquid Water Using An Electric Field
1077	Ellen J Soskin	Grade 12	Bioremediation Potential of <i>Pseudomonas putida</i> Fu1 to Prevent Toxic Runoff Into Water Supplies
1082	Emily Chen	Grade 10	Low Cost Biosorbent for Heavy Metal Removal

St. Paul

1083	Kaia S Fahnestock, Rory A Coleman	Grade 10	The Ford Plant's Impact on Hidden Falls Water
1045	Selam A Tesfatsion	Grade 10	What Factors Affect The Electrolysis of Different Types of Water?
1042	Abraham A Murillo	Grade 10	Effect of Aqueous CO ₂ on Metal Oxidation

Students Achieving Volunteering Excellence (SAVE)

- Certificate & \$25 cash to students whose display best communicated their experiment

Grade 6

6008	Sophia A Michalski	Grade 6	Mirror Writing Can Be Difficult
6061	Caroline G. Bowen	Grade 6	Does Dog Saliva Kill Bacteria?
6083	Olivia K. Pope	Grade 6	A Revolution Revelation

Grade 7

7055	Gracey B Scott	Grade 7	Does The Color Of The Crystal Affect Its Growth?
7144	Theo J Schmidt	Grade 7	Heat, Steam, Pop!: Measuring Popcorn Moisture Levels

Grade 8

8110	Colleen P Scallen	Grade 8	Does the Continual Use of Purell® Actually Affect Bacteria Levels?
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High School

Twin Cities Regional Science Fair Excellence Award

- Science Kit or T-shirt for an Excellent Project

6034	Peter Weber, Otto	Grade 6	How Is Erosion Best Prevented?
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Schroepfer			
6082	Daniel T Newman	Grade 6	Pulleys
6079	Sophia H Kouay	Grade 6	Operation Catapult
7012	Emmalyn R Elsen	Grade 7	Simsons Memory Game
7066	Heidi N Krauss	Grade 7	Saving Energy by Measuring Watts in Your Home
7089	Mark A Leinberger	Grade 7	The Effects of Pollution on Solar Cell Productivity
8110	Colleen P Scallen	Grade 8	Does the Continual Use of Purell® Actually Affect Bacteria Levels?
8091	Madison R Huna	Grade 8	Cinnamon Spice and Everything Nice: The Effect of Cinnamon on Lifespan of <i>Caenorhabditis elegans</i>
6052	Meg M Pryor	Grade 6	Butterfly Metamorphosis
6012	Ellie A Scheid	Grade 6	The Memory Duel
6001	Sarah Betts	Grade 6	Memory Development and Myelin Growth
6061	Caroline G. Bowen	Grade 6	Does Dog Saliva Kill Bacteria?
7005	Carson L Knoer	Grade 7	Can the Aquatic Invasive Species Known As Chinese Mytery Snails Survive Up To 21 Days Out Of Water
7025	Alyse J Walker	Grade 7	"Does Gender Affect the Ability to Remember Dreams?"
7024	Colleen E Wagner	Grade 7	Distracted Driving
7042	Grace A Gallucci Ms.	Grade 7	"Does the Type of Hair on a Dog Affect How Long Dog Hair Dye Will Last?"
7079	Grace L Gardner	Grade 7	Cracked! A Test on the Durability of Nail Polish
8019	Billy Yang	Grade 8	The Affect of Transposed Words on Reading Ability
6071	Christen V. Gauker	Grade 6	To Boil or Not to Boil
1127	Krista E Bain	Grade 10	Thrive or Survive? An analysis of water type on the growth of hydroponically grown <i>Lycopersicon Lycoperscium</i> .
1120	Christopher M Santilli	Grade 10	Does Bone Rubbing Wooden Baseball Bats Affect the Distances a Baseball is Hit Off of Them?
1080	Anushua Bhattacharya	Grade 12	Toxicity of Ag and Au Nanoparticles on <i>Shewanella Oneidensis</i>
1082	Emily Chen	Grade 10	Low Cost Biosorbent for Heavy Metal Removal
1111	Yan Jiao	Grade 12	Factors That Affect the Spread of Food-borne Multidrug-resistant <i>Escherichia coli</i>
1106	Roshny Vijayakar	Grade 12	Food for Thought: Perinatal Iron Deficiency and the Brain
1092	Roy Zhao	Grade 11	New Models for Tat Dynamics
1103	Jessica Ryvlin, Claire M Simpson	Grade 11	Mercaptopyruvate-TEA: A Possible Antidote Against Homeland Security Threats of Chlorine Poisoning
1107	William Zeng, Orien Zeng	Grade 10	Deletion of <i>Ndst1</i> in Smooth Muscle Decreases Aortic Wall Area and Vascular Smooth Muscle Cell Count
1035	Destiny A Brown	Grade 11	Potassium In Different Apple Varieties
1043	Partha Naidu	Grade 12	Characterization and Application of Pseudoisocyanine-Iodide in Optical Devices

1030	Anna M Hendrickson, Eva Wang	Grade 12	Interaction of Cyclin D1 and PPAR α in Cancer Cell Metabolism
1019	Aris E Prince	Grade 12	A Three-generational Study on Knowledge about and Sources Used to Find Information on Brain-related Conditions
1108	Aditi Das	Grade 10	Cell Polarity in Bacteria: Analysis Using Green Fluorescent Protein Fusions
1064	Taylor S McCanna	Grade 12	Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change
1053	Robert S Dorn, Saeed Hakim-Hashemi	Grade 12	The Future of Lighting: Improving the efficiency of organic light-emitting diodes (OLEDs)
1054	Carissa E Kloncz	Grade 12	Revamping the World's Energy Sources One Crop at a Time: Phase II
1071	Felicia Y Hamann	Grade 11	Producing Water Out of Thin Air
1113	Keshav K Mangalick	Grade 12	Genetic Characteristics of Influenza A Viruses in Swine Populations

United States Air Force Awards

- Certificate, computer backpack, charging stand, & flash jotter bundle

Twin Cities

1088	Christopher K Larsson	Grade 10	Derivatives in Real Life
8073	Angela R Yarusso	Grade 8	Get A Grip
8066	Joseph A Baumann	Grade 8	How Far Will It Go!
8062	Conlan E Olson	Grade 8	The Effect of the Angle of a Wing on the Wing's Performance: A Model

Western Suburbs

1064	Taylor S McCanna	Grade 12	Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change
1051	Rishi Sinha	Grade 12	Predictive Modeling of Rehospitalization Using Health Care Claims Data
1043	Partha Naidu	Grade 12	Characterization and Application of Pseudoisocyanine-Iodide in Optical Devices
7119	Andrew C Hienz	Grade 7	Near Space Flight

St. Paul

8065	Carly C Zimmerman	Grade 8	Rovers: To Boldly Go [Without Stopping] Where No Man has Gone Before
8014	Julien S Oxenham	Grade 8	Short-term Cognitive Effects of Playing Computer Games
7064	Iris C Holman	Grade 7	How Wing Design Affects Lift

6076 David A Jaksha Grade 6 3 ... 2 ... 1 ... Liftoff

United States Army Awards

Best Project

- Certificate, bronze medallion

Twin Cities

1062 Alex Eitzman Grade 9 Robot Car

Western Suburbs

1070 Alejandro J Fenn, Andrew Engel Grade 12 Engineering an Optical Cell to Improve Lithium-ion Battery Safety

St. Paul

1083 Kaia S Fahnestock, Rory A Coleman Grade 10 The Ford Plant's Impact on Hidden Falls Water

Commended Award

- Certificate

Twin Cities

1122 Cory B Spawn Grade 9 Which type of Yagi antenna works the best?

1073 Heather J Stone Grade 10 Developing A New Seeder For Small African Grains

1065 Dane R Olson Grade 12 Development of a Stair-Climbing System

1060 Katherine R Carman Grade 10 Dragster Aerodynamics: A Scientific Study on the Effects of Shape on an Object's Aerodynamics

Western Suburbs

1071 Felicia Y Hamann Grade 11 Producing Water Out of Thin Air

1050 Abhishek Nayar Grade 10 Project Myke

1064 Taylor S McCanna Grade 12 Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change

1047 Samarth A Damania Grade 12 A Data-mining Approach to Identify Factors that Contribute to High Pharmaceutical Drug Costs

St. Paul

1124 Phongxo Thao Grade 9 Its a bird, its a plane, its a paper airplane??

1069 Nyle N Enright Grade 12 Grinding for a Finish!

- 1038 Foua Khang, Pajar Lee, Chin Nou Grade 9 Get Energized
Khang
- 1042 Abraham A Murillo Grade 10 Effect of Aqueous CO₂ on Metal
Oxidation

United States Department of Agricultural Research Award

- Certificate & books

Twin Cities

- 1075 Micah J Hill, Michelle Grade 12 Formulating a Localized Equation to Convert from
J LaGarde Electrical Conductivity to NaCl in Minneapolis Metro Area
Waters
- 1084 Angel E Harding, Grade 12 Polychlorinated biphenyl in Minnesota Metro Area
Alicia M Jourdain Wetlands

Western Suburbs

- 8136 Audrey M Sheehy Grade 8 Ionized Hydroponics vs. Ionized Aeroponics Vs. Aeroponics

St. Paul

- 6051 Devin T McGill, Grade 6 Water Clarity in Lakes
Charlie W
Dombrow
- 6089 Erin I Westman Grade 6 What's wrong with my plant? Is it dead or alive?
- 8079 Cece Johnson Grade 8 When Compared To Untreated Wood, Will Wood Treated
With Creosote Contaminate The Soil, Water, And Plants In
Raised Garden Beds?

United States Metric Association

- Certificate

Twin Cities

- 1054 Carissa E Grade 12 Revamping the World's Energy Sources One Crop at a Time:
Kloncz Phase II

Western Suburbs

- 1067 Alexander Spencer, Grade 12 Recycling Waste Heat: Development of a Low-cost
Evan Chen Thermoelectric Generator for Off-grid Energy Production

St. Paul

- 1083 Kaia S Fahnestock, Rory A Grade 10 The Ford Plant's Impact on Hidden Falls
Coleman Water

United States Navy and Marine Corps

High School Division

certificate & \$50 check (in the mail)

Twin Cities

1062 Alex Eitzman Grade 9 Robot Car

Western Suburbs

1064 Taylor S McCanna Grade 12 Engineering an Inexpensive Mobile Electric Field Mill to Measure the Global Electric Circuit to Track Global Climate Change

1067 Alexander Spencer, Grade 12 Recycling Waste Heat: Development of a Low-cost
Evan Chen Thermoelectric Generator for Off-grid Energy Production**St. Paul**

1125 Tom Vennemann Grade 12 Projecting Particles

Junior High Division

certificate

Twin Cities

8062 Conlan E Olson Grade 8 The Effect of the Angle of a Wing on the Wing's Performance: A Model

8069 Alexander L Guzman, Jack Grade 8 Which Material is the Best Sound Attenuator?
Strand**Western Suburbs**7128 Thomas Q Grade 7 Surface Tension and How Different Liquids Affect it
McCoy7118 Elena Extrand Grade 7 Does Size and Shape of an Object Affect How High it
Floats

6065 Tommy Anderson Grade 6 Does the Hull Design of a Boat Affect the Drag Force?

St. Paul

6018 David M Dowdy Grade 6 Ionic and Covalent bonds

8126 Sophie Perron Grade 8 Singing Dry Ice

University of Minnesota College of Science & Engineering

- Scholarship for the summer camp "Exploring Careers in Engineering and the Physical Sciences"

1035 Destiny A Brown Grade 11 Potassium In Different Apple Varieties

1045 Selam A Grade 10 What Factors Affect The Electrolysis of Different Types of
Tefatsion Water?

1091 Alex w Uloth Grade 10 "Just How Far Are You Away"

1086 Taylor J Swingle Grade 10 Light Pollution Around Cities

Yale Science and Engineering Association, Inc.

- Certificate for an 11th grade student in computer science, engineering, physics, or chemistry

Twin Cities

1126 Andy Ylitalo Grade 11 The Total Displacement Cross Section of Hexagonal Boron Nitride Monolayers

Western Suburbs

1048 Caleb J Kumar Grade 11 Designing and Validating a Java program to Improve the Diagnosis of Bladder Cancer: Year 2

St. Paul