

2007 Twin Cities Regional Science Fair Awards

ISEF-Albuquerque, New Mexico May 13-19, 2007

Finalists:

Twin Cities:

- | | | | |
|-------|------------------|----------|---|
| 1091T | Ummul Kathawalla | grade 10 | Three Novel Anti-Cancer Agents and their Efficacy on Leukemia B-cells |
| 1107T | Daniel Zheng | grade 12 | Genomic identification of the germ-line origin of human birth defects: A simulation study |

Western Suburbs:

- | | | | |
|-------|-----------------|----------|--|
| 1165W | Kyra Underbakke | grade 11 | Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules |
| 1038W | Brandon Lew | grade12 | Characterization of Anthocyanins in Purple Pods of <i>Phaseolus vulgaris</i> cv. Blauhilde |

St. Paul (team):

- | | | | |
|-------|------------------|---------|--------|
| 1169S | John Earl | grade 9 | Copper |
| | Lucas Gabrielson | grade 9 | |
| | Jacob Stramer | grade 9 | |

Alternates:

Western Suburbs:

- | | | | |
|-------|------------|----------|--|
| 1085W | Tracy Fuad | grade 12 | A Predictive Assay for Success Rates of Islet Transplantation to Treat Type-1 Diabetes |
|-------|------------|----------|--|

Twin Cities:

- | | | | |
|-------|------------|----------|---|
| 1146T | Ethan Chun | grade 11 | Effects of Electromagnetic Fields on the Bioluminescence of Dinoflagellates |
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Sponsors Awards: Winners must be present at the awards ceremony.

Bronze Level-Ribbon

General E.W. Rawlings Chapter, Air Force Association:

- | | | | |
|-------|----------------|---------|------------------|
| 6024T | Theo Catanzaro | grade 6 | Can't Touch This |
|-------|----------------|---------|------------------|

Silver Level-Plaque

Slattery Sales Group:

- | | | | |
|-------|----------------|---------|--|
| 8051S | Phoenix Mongin | grade 8 | What Should You Use to Keep Warm at Night? |
|-------|----------------|---------|--|

Twin City Catering:

- | | | | |
|-------|------------|---------|--|
| 8073S | Tseng Yang | grade 8 | Do Spices Have Antibiotic Effects Against <i>E. coli</i> and <i>Staph aureus</i> ? |
|-------|------------|---------|--|

Alliant Techsystems: (tie)

- | | | | |
|-------|-------------------|----------|--|
| 1086W | Egal Gorse | grade 12 | Transfection of Immunotoxin Genes into Eukaryotic Cells for the Development of Antibody Targeted Carcinoma Therapy |
| 1170W | Siddharth Damania | grade 11 | Developing a Fluorescamine Assay to Probe Cardiac Protein Structure |
| | & Virginia Dines | grade 12 | Developing a Fluorescamine Assay to Probe Cardiac Protein Structure |

St. Paul Youth Fund:

1130S Ker Lee grade 9 Bridges

Midway Party Rental:

8043S Rachel Lee grade 8 Wind turbines: The effect of blade configuration on micro voltage output

Gold Level-Plaque**Ecolab:**1073T Hali LittleCloud grade 12 Traditional sage (*salvia officinalis*) versus the road salts (NaCl and CaCl₂)**The Medtronic Foundation:**1038W Brandon Lew grade 12 Characterization of Anthocyanins in Purple Pods of *Phaseolus vulgaris* cv. Blauhilde**Platinum-Plaque****University of Minnesota:**

1025T Christine Stelman grade 10 Exercising Test Scores

3M Foundation:

1085W Tracy Fuad grade 12 A Predictive Assay for Success Rates of Islet Transplantation to Treat Type-1 Diabetes

Discovery Junior Science Competition: Top students from 6, 7 and 8 grades are nominated to the next level of competition.

8035T	Joseph Wegner	grade 8	Let It Blow
8077T	Sarah Ellen Miller	grade 8	Play it right the physics of the guitar
8072W	David Voigtlander	grade 8	What's in a Puppy Kiss?
8003W	Kateri Cavanagh	grade 8	Brand Name Bullies
8041 W	Charlie Haumersen	grade 8	Solar Energy
8066 W	Mike Pruszinske	grade 8	Does Caffeine Really Boost Your Brainpower?
8086T	Eric Young	grade 8	Effect of Exercise on CO ₂ Output
8015S	Leif Park Jordan	grade 8	Which Contains More Vitamin C: Organic or Non-organic Oranges?
8010 T	Prithwis Mukhopadhyay	grade 8	Echo-friendly Source of Energy for Future
8048S	Matthew Buechler	grade 8	The Effect of culvert inlet design on the efficiency of culverts operating under inlet control
8055S	Jesse Acosta	grade 8	Mother Nature's Vacuum
8019S	Shawn Halvorson	grade 8	How does the heat of different types of chili peppers compare and does the heat have any correlation to the size or mass of the peppers?
8043S	Rachel Lee	grade 8	Wind turbines: The effect of blade configuration on micro voltage output
8092W	Seth Eibes	grade 8	Best Golf Ball for the Buck
8092W	Phillip Eickman	grade 8	Best Gold Ball for the Buck
7025W	Danielle Ringle	grade 7	Corrosion
7051W	Allison Livingston	grade 7	Sunburn in the car?
7116 S	Hannah Perry	grade 7	Shooting for the Stars
7082 W	Allison Lutz	grade 7	Does the Fall Distance and Angle of a Blood Droplet affect its Diameter or Shape?
7066T	Amy Peick	grade 7	Temperature and Gum
7069S	Vanessa Voller	grade 7	Blood Pressure
7115T	Julisa Ricart	grade 7	Which Soda Decays Your Teeth the Most?

7060W	Marika Jeltema	grade 7	Stuck on You
7045W	David Shultz	grade 7	Go With the Flow?
7086 S	Robert Sabota	grade 7	Ultraviolet Radiation
7083W	Dani Nelson	grade 7	Impact
7019S	James Harnett	grade 7	Effect of pH on Metal Corrosion
7004T	Kateri Rixon	grade 7	Repelling Rabbits
7011T	Lauren Yares	grade 7	Distractability
6012S	Ryan Blake	grade 6	Battery Life
6002W	Elizabeth Garrison	grade 6	Memory Lane
6023S	Katerina Kolar	grade 6	Osteoporosis - the Silent Thief

Minnesota Academy of Science State Fair-Projects selected to represent our region in competition in St. Paul, March 25-27, 2007

1038W	Brandon Lew	grade12	Characterization of Anthocyanins in Purple Pods of <i>Phaseolus vulgaris</i> cv. Blauhilde
1091T	Ummul Kathawalla	grade 10	Three Novel Anti-Cancer Agents and their Efficacy on Leukemia B-cells
1058W	Emal Alwis	grade 9	The Next Great Advancement in Energy: The Hydrogen Fuel Cell
1127W	Paul Grandstand	grade 12	Optimizing a Non-Linear Oscillating Pendulum
1161W	Julie Ann Rader	grade 12	Effects of Nitrate Concentration on Nitrogen Fixation by Pea Plants (<i>Pisum sativum</i> L. sv. Oregon Sugar)
1135T	Isaac Pulcher	grade 11	Ballistics
1107T	Daniel Zheng	grade 12	Genomic identification of the germ-line origin of human birth defects: A simulation study
1150W	Shannon Engelman	grade 12	Effects of 2,4-D on Anthocyanin Pigments in Red Norland Potatoes (<i>Solanum tuberosum</i>)
1171T	Jenna Johnson & John Clifford	grade 12	Easily Distracted: A Comparative Study of ADHD and Cognitive-Style Inconsistencies
		grade 11	Easily Distracted: A Comparative Study of ADHD and Cognitive-Style Inconsistencies
1032W	Sara Schilling	grade 12	Regulation of Superoxide Radical in <i>Escherichia coli</i>
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1164T	Tiffanie Stone	grade 9	Is Potassium Metalosate a Nutrient Amplifier?
1081W	Kaitlyn Creasey	grade 12	Tachinid Fly (<i>Lespesia archippivora</i>) Parasitism of Monarch Butterfly Larvae (<i>Danaus plexipus</i>)
1099W	Paul Saliterman	grade 9	Dissolution Rate of Pain Reliever Pills
1118W	Andrew Carlson	grade 9	Rockets in Flight
1157T	Sarah Korthauer	grade 10	Effects of Different Magnet Locations Near Sunflower Plants
1075T	Emma Martin	grade 10	The Effects of Turbulent Water From Black Dog Lake on the Minnesota River
1014W	Jane Geiwitz	grade 9	Does Sight Affect Taste?
1165W	Kyra Underbakke	grade 11	Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules
1146T	Ethan Chun	grade 11	Effects of Electromagnetic Fields on the Bioluminescence of Dinoflagellates
1054W	Karl Paske	grade 9	The I494 Project - Effects on Noise Pollution
1131W	Andrew Lentz	grade 9	Parachutes

1025T	Christine Stelman	grade 10	Exercising Test Scores
1085W	Tracy Fuad	grade 12	A Predictive Assay for Success Rates of Islet Transplantation to Treat Type-1 Diabetes
1064W	Sasha Arrieta	grade 9	Biomechanical Analysis of a Lay-up
1103W	Perry Thompson	grade 9	Juggling Your Field of Vision
1024W	Elizabeth Sansing	grade 9	The Pulse of Music
1018W	Madison Johnston	grade 9	Reading and Linguistic Interpretation: How do Genders Compare?
1083T	Michael Cherkassky	grade 10	Statistical Analysis of the Random Nature of Financial Markets
1096W	Jorge Perdigao	grade 9	Effects of Soft Drinks on Teeth
1154W	Jack Hinkens	grade 9	The Effects of Soil pH on <i>Ocimum basilicum</i>
1068W	David Kasyanyuk	grade 9	Bow Physics
1056W	Sarah Washko	grade 9	Solar Energy vs. Wind Energy
1046W	Grace Washko	grade 9	Chlorine Damage to Hair
1047W	Matthew Weiss	grade 12	Synthesis of Supramolecular Self-assembling Macromolecular Structures
1057T	Wyatt Yohnk	grade 10	Fuel Additives and Small Engine Efficiency
1082W	Hanna Hondzo	grade 9	Solar Powered Water Purification System
1086W	Egal Gorse	grade 12	Transfection of Immunotoxin Genes into Eukaryotic Cells for the Development of Antibody Targeted Carcinoma Therapy
1078W	Karen Uhlemann	grade 9	The Effects of Fertilizer on Milfoil Growth
1006W	Janel Allen	grade 9	Grades vs Activities: Is There a Correlation?
1168T	Joseph Holewa & James Holter & Mitchell Larson	grade 12	Applied Science on the Plant <i>Cuscuta</i>
1170W	Siddharth Damania	grade 11	Developing a Fluorescamine Assay to Probe Cardiac Protein Structure
	& Virginia Dines	grade 12	Developing a Fluorescamine Assay to Probe Cardiac Protein Structure
1169S	John Earl & Lucas Gabrielson	grade 9	Copper
	Jacob Stramer	grade 9	Copper
8092W	Seth Eibes & Phillip Eickman	grade 8	Best Golf Ball for the Buck
8043S	Rachel Lee	grade 8	Best Golf Ball for the Buck
8019S	Shawn Halvorson	grade 8	Wind turbines: The effect of blade configuration on micro voltage output
8055S	Jesse Acosta	grade 8	How does the heat of different types of chili peppers compare and does the heat have any correlation to the size or mass of the peppers?
8048S	Matthew Buechler	grade 8	Mother Nature's Vacuum
8010 T	Prithwis Mukhopadhyay	grade 8	The Effect of culvert inlet design on the efficiency of culverts operating under inlet control
8015S	Leif Park Jordan	grade 8	Echo-friendly Source of Energy for Future
8086T	Eric Young	grade 8	Which Contains More Vitamin C: Organic or Non-organic Oranges?
8013S	Amelia Smith	grade 8	Environmental Enemies
8068T	Kathleen Schaefer	grade 8	Faith, Academics and Self Esteem
		grade 8	Effect of Exercise on CO2 Output

8066 W	Mike Pruszinske	grade 8	Does Caffeine Really Boost Your Brainpower?
8041 W	Charlie Haumersen	grade 8	Solar Energy
8003W	Kateri Cavanagh	grade 8	Brand Name Bullies
8077T	Sarah Ellen Miller	grade 8	Play it right the physics of the guitar
8035T	Joseph Wegner	grade 8	Let It Blow
8070S	Daniel Sabourin	grade 8	Ready, Set, Coke
8001S	Ian Buck	grade 8	Cat Handedness
8082W	Jacob Derechin	grade 8	The Alaska Pea Plant Project
8034S	Jonathan Tetlie	grade 8	How Does Solar Radiation Affect Heat Conservation?
8087S	Zach Zippel	grade 8	Do Plant Seeds Contain Different Amounts of DNA?
8106S	Ryan Rampersad	grade 8	Programming Loops
8049W	Elaina Hamann	grade 8	Can a Building Be Built to Withstand a Tornado?
8099T	Adam Braun &	grade 8	How Does Sleep Deprivation Affect Human Behaviors and Abilities?
	John Tousignant	grade 8	How Does Sleep Deprivation Affect Human Behaviors and Abilities?
8057S	Laura Burns	grade 8	How Healthy are City Trees?
8047W	Daniel Wratkowski	grade 8	Temperature and Conductivity
8007W	Claire Jacques	grade 8	Color on Color
7011T	Lauren Yares	grade 7	Distractability
7004T	Kateri Raxon	grade 7	Repelling Rabbits
7019S	James Harnett	grade 7	Effect of pH on Metal Corrosion
7083W	Dani Nelson	grade 7	Impact
7086 S	Robert Sabota	grade 7	Ultraviolet Radiation
7045W	David Shultz	grade 7	Go With the Flow?
7060W	Marika Jeltema	grade 7	Stuck on You
7115T	Julisa Ricart	grade 7	Which Soda Decays Your Teeth the Most?
7069S	Vanessa Voller	grade 7	Blood Pressure
7066T	Amy Peick	grade 7	Temperature and Gum
7082 W	Allison Lutz	grade 7	Does the Fall Distance and Angle of a Blood Droplet affect its Diameter or Shape?
7116 S	Hannah Perry	grade 7	Shooting for the Stars
7051W	Allison Livingston	grade 7	Sunburn in the car?
7025W	Danielle Ringle	grade 7	Corrosion
7009W	Shawn Tandon	grade 7	Does Age Affect the Ability to Figure Out Riddles?
7070S	Panra Yang	grade 7	Which Drink Hydrates the Human Cell Fastest?
7109S	Zach Johnston	grade 7	Electric Fruit
7102T	Brianna Yaritz &	grade 7	Memory Boys vs Girls
	Lindsey Schwalbach	grade 7	Memory Boys vs Girls
7098T	Paul Lovhaug	grade 7	Light Nurtures
7023W	Emilie Johnson	grade 7	What is the Most Efficient Substance for Melting Ice?
7041S	Jennifer Chmura	grade 7	Corruption
7038W	Molly Peterson	grade 7	Powered or Plants: Alternative Energy's Growing Resource
7111S	Kyrst Pylkki	grade 7	Testing Sunscreen Effectiveness
7094T	Kayla Espindola	grade 7	How Fertilizer Affects Fast Plants
7055S	Brandon Langer	grade 7	Does shape and size affect probability?

Research Papers Selected for competition at the Tri-State Junior Science and Humanities Symposium March 24th and 25th.

Grades 10-12 Senior Division

1st Place Trophy	S16	Christina Heinzen	grade 10	Growth of Pleurotus eryngii in Different Mediums
2nd Place Trophy	S37	Paul Grandstand	grade 12	Optimizing a Non-linear Oscillating Pendulum
3rd Place Trophy	S5	Rebekah Brown	grade 10	A Comparison of the Efficiency of Hydroponics and Aquaponics

Medalists (also competing at Symposium)

S4	Emilie Bennick	grade 10	The Effects of Stretching on Strength and Heart Rate When Lifting Weights
S14	Tyler Hanson	grade 10	The Effects of Salinity on Brine Shrimp Populations
S36	Jacqueline Ross	grade 11	Is E85 Less Flammable Than Unleaded Gasoline Based on Lower Explosive Limits and Volatile Organic Compound Measurements

Research Papers Selected for competition at the Minnesota State Science Fair, March 25-27

Grades 7-9 Junior Division

1st Place Trophy	J7	Rachel Lee	grade 8	The Effect of Blade Configuration and Angle on a Wind Turbines's Micro Voltage Output
2nd Place Trophy	J12	Tiffany Stone	grade 9	Is Potassium Nitrate a Nutrient Amplifier?
3rd Place Trophy	J9	Elaina Hamaan	grade 8	Can a Building Be Built to Withstand a Tornado?

Medalists (also competing at State)

J11	Luke Stone	grade 7	Are Minneapolis Parks and Fields Lead Free?
J1	Nelson Hunstad	grade 7	Changing Winds
J6	Mara Keyes	grade 8	Embryonic Stem Cell Research: Is It Really Worth It?

Team Awards-presented to the best teams in each section: (trophy for each team member)

GRADE 6:	6029S	Sarah Haley & Annie Keough	Bye Bye Piggy
GRADE 7:	7102T	Lindsey Schwalbach & Brianna Yaritz	Memory Boys vs Girls
GRADE 8:	8092W	Seth Eibes & Phillip Eickman	Best Golf Ball for the Buck
GRADE 9-12:	1171T	John Clifford & Jenna Johnson	Easily Distracted: A Comparative Study of ADHD and Cognitive-Style Inconsistencies

Project Medalist-Outstanding projects in Sixth Grade

6023S	Katerina Kolar	Osteoporosis - the Silent Thief
6028S	Margaret Underwood	Mother Nature vs. Miracle-Gro
6002W	Elizabeth Garrison	Memory Lane
6012S	Ryan Blake	Battery Life
6010S	Laura Mulcahy	How do green roofs compare to traditional roofs in terms of water run-off?
6029S	Sarah Haley	Bye Bye Piggy
6029S	Annie Keough	Bye Bye Piggy
6003T	Isaac Lees	Tseet, Tseet, Can Chicadees Carry a Tune?
6001W	Nina Cecere	How does temp affect the growing rate of a butterfly?
6025W	Natalie Pawlyshyn	Temperature
6015W	Victoria Bollensen	E85 a good fuel alternative

Minnesota Chapter of the American Fisheries Society:

Certificate & Fishing equipment--Presenter Brian Stock

Senior High

1075T	Emma Martin	grade 10	The Effects of Turbulent Water From Black Dog Lake on the Minnesota River
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Junior High

7003W	Katelyn Caron	grade 7	Which Fish Species Respiration Rate is Most Affected by Changes in Water Temperature?
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Hennepin Medical Society Alliance: Certificate and \$50 Savings Bond

Presenter Trish Vaurio

Senior High

1106S	Karla Xinastle	grade 9	Pheromones
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Junior High

7069S	Vanessa Voller	grade 7	Blood Pressure
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Associate of Women Geoscientists: Certificate to female whose project exemplifies high standards of innovativeness and scientific excellence in geosciences.

1076T	Amanda McKenzie	grade 10	How safe is the soil? An Environmental Assessment of the Arsenic Levels of south Minneapolis
8030S	Zoe Bartholomew	grade 8	Rock Temperature

University of Minnesota Department of Rhetoric:

1091T	Ummul Kathawalla	grade 10	Three Novel Anti-Cancer Agents and their Efficacy on Leukemia B-cells
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National Oceanic and Atmospheric Administration: Certificate to student whose project helps understand and predict the changes in the Earth's environment

1073T	Hali LittleCloud	grade 12	Traditional sage (<i>salvia officinalis</i>) versus the road salts (NaCl and CaCl ₂)
8055S	Jesse Acosta	grade 8	Mother Nature's Vacuum
1070W	Paul Bergeland	grade 9	Is There a Correlation Between Water Clarity and Quality?

US Department of Health & Human Services: Certificate to the students who creatively illustrate and expand on healthy lifestyles, healthy diets and no tobacco use.

1025T	Christine Stelman	grade 10	Exercising Test Scores
1029S	Karie Mathisen	grade 10	Soda Pop Evaporation: Sugar Contents
1096W	Jorge Perdigao	grade 9	Effects of Soft Drinks on Teeth

East Side Science Club Alumni Awards: Medals are presented to outstanding youths that demonstrate innovation and creativeness in project development.

6030S	Maddie Blumberg	grade 6	The Low Down on Diapers
6030S	Alliison Metzger	grade 6	The Low Down on Diapers
6008S	Evan Denis	grade 6	How does concentration of a solution affect crystallization?
7013W	Matthew Bliss	grade 7	The Great Cookie Challenge
7046W	Matthew Spano	grade 7	Does the Wattage of the Light Bulb Affect its Maximum Temperature and How Fast it reaches that Temperature?
7051S	Allison Livingston	grade 7	Sunburn in the Car?
8014W	Michael Zondlo	grade 8	Memory: How Long does it Last?
8013S	Amelia Smith	grade 8	Faith, Academics and Self Esteem
8034S	Jonathan Tetlie	grade 8	How Does Solar Radiation Affect Heat Conservation?
7012S	Lena Zinkl	grade 7	Stress Effects
8026T	Laura Stepaniak	grade 8	Eggshells
7077T	Aruak Riley	grade 7	Unseen Life

Mu Alpha Theta: Certificate awarded to students demonstrating the most challenging, original, thorough and creative investigation of a problem involving modern mathematics.

1043T	Jacqueline Ross	grade 11	Flammability of E85 vs. Unleaded Gasoline
1085W	Tracy Fuad	grade 12	A Predictive Assay for Success Rates of Islet Transplantation to Treat Type-1 Diabetes

Ricoh Sustainable Development Award:

1051T	Willie Hughes	grade 11	What About Wind Power?
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1082W	Hanna Hondzo	grade 9	Solar Powered Water Purification System

American Meteorological Society: Certificates for outstanding achievements in Meteorological Science

6009S	Macey Johnson	grade 6	Temperature and Humidity
6019S	Audrey Morf	grade 6	What is global warming what is causing it and what are its effects?
7030T	Stephen Juliff	grade 7	Natural Disasters: Tropical Storms and Hurricanes
8080T	Austin Becicha	grade 8	How Does Acid Rain Affect the Growth of Bean Plants?
1134W	Anna Plaunt	grade 9	Do Sunspots Affect the Climate in Minnesota?
1048W	Shanisse Willaims	grade 9	Weather Predicting Student vs. Meteorologist
1148W	Katie Copouls	grade 9	Spinach and Global Warming?

Graduate Women In Science Outreach-University of Minnesota: Certificate and \$25:one per grade.

6010S	Laura Mulcahy	grade 6	How do green roofs compare to traditional roofs in terms of water run-off?
7066T	Amy Peick	grade 7	Temperature and Gum
8013S	Amelia Smith	grade 8	Faith, Academics and Self Esteem
1014W	Jane Geiwitz	grade 9	Does Sight Affect Taste?
1013T	Allison Flickinger	grade 10	Relationships Between Eye Dominance and Cerebial Dominance
1043T	Jacqueline Ross	grade 11	Flammability of E85 vs. Unleaded Gasoline
1032W	Sara Schilling	grade 12	Regulation of Superoxide Radical in Escherichia coli

US Metric Association: Certificate to the student whose project involves a significant amount of quantitative measurement and which best uses the metric system.

1073T	Hali LittleCloud	grade 12	Traditional sage (salvia officinalis) versus the road salts (NaCl and CaCl ₂)
1174S	Joe Rubbelke & Abigail Sullivan & Maiuboon Vang	grade 9 grade 9 grade 9	The Roof's On Fire
1161W	Julie Ann Rader	grade 12	Effects of Nitrate Concentration on Nitrogen Fixation by Pea Plants (Pisum sativum L. sv. Oregon Sugar)

ASM Materials Education Foundation: Medallion (In the mail) and Certificate recognizing the best materials engineering project

1068W	David Kasyanyuk	grade 9	Bow Physics
8048S	Matthew Buechler	grade 8	The Effect of culvert inlet design on the efficiency of culverts operating under inlet control
1066T	Vida Dam	grade 10	Nano-TEX Fabric: Is It Better or Not?

Intel Excellence in Computer Science Award:
Certificate and \$200 CHECK IN THE MAIL

1107T	Daniel Zheng	grade 12	Genomic identification of the germ-line origin of human birth defects: A simulation study
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1127W	Paul Grandstand	grade 12	Optimizing a Non-Linear Oscillating Pendulum

American Psychology Association: Certificate

1011T	Bob Durham	grade 10	The Effect of Gender Identity on Short Term Memory
1008S	Chris Beacham	grade 9	Battle of the Sexes
1028W	Ian Zewiske	grade 9	Chess and the Mind

Stockholm Junior Water Prize: Certificate and folder.

1075T	Emma Martin	grade 10	The Effects of Turbulent Water From Black Dog Lake on the Minnesota River
1070W	Paul Bergeland	grade 9	Is There a Correlation Between Water Clarity and Quality?
7050S	Alexander Edgerton	grade 7	Down by the river, a water quality analysis

American Council of Engineering Companies of Minnesota:
Top student receives TI calculator

Grand Award & Calculator:

1058W	Emal Alwis	grade 9	The Next Great Advancement in Energy: The Hydrogen Fuel Cell
6015W	Victoria Bollensen	grade 6	E85 a good fuel alternative
6017S	Meghan Kies	grade 6	London Bridge is Falling Down
7032W	Billy Bird	grade 7	Up, Up, and Away
7037W	Kristina Netterlund	grade 7	Flying on Air
8048S	Matthew Buechler	grade 8	The Effect of culvert inlet design on the efficiency of culverts operating under inlet control
8049W	Elaina Hamann	grade 8	Can a Building Be Built to Withstand a Tornado?
1056W	Sarah Washko	grade 9	Solar Energy vs. Wind Energy

International Society for Optical Engineering: Certificate and opportunity for \$100 and other prizes if they complete and send in their paperwork.

8004T	Annie Choiniere	grade 8	Optical Illusions
1038W	Brandon Lew	grade 12	Characterization of Anthocyanins in Purple Pods of <i>Phaseolus vulgaris</i> cv. Blauhilde
1144S	Bruce Weldon	grade 10	Colorful Light

Yale Science and Engineering Association: Certificate and Medallion in the mail. Excellent project in Computer science, Physics or Chemistry Category by an 11th grader.

1135T	Isaac Pulcher	grade 11	Ballistics
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1165W	Kyra Underbakke	grade 11	Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules

ISEF Alumni Awards

Sponsor: Timara Underbakke

\$25 cash & certificate:

7111S	Kyrst Pylkki	grade 7	Testing Sunscreen Effectiveness
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Einstein T-shirt & certificate:

7110S	Jack Kennedy	grade 7	The Name Brand vs. Generic Laundry Detergent Challenge
7038W	Molly Peterson	grade 7	Powered or Plants: Alternative Energy's Growing Resource

Sponsor: Michael Lohman

One hour in Flight Simulator

7116S	Hannah Perry	grade 7	Reach for the Stars
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Sponsor: Kyrstin Underbakke

Vesalius' skeleton T-shirt & Certificate:

7069S	Vanessa Voller	grade 7	Blood Pressure
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Periodic table T-shirt & Certificate:

8022W	Gavin Ovsak	grade 8	Nano Dye-Sensitized Organic Solar Cells
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Science medal key chain & Certificate:

8010 T	Prithwis Mukhopadhyay	grade 8	Echo-friendly Source of Energy for Future
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Minnesota Agriculture in the Classroom: \$75 check

7038W	Molly Peterson	grade 7	Powered or Plants: Alternative Energy's Growing Resource
1164T	Tiffanie Stone	grade 9	Is Potassium Metalosate a Nutrient Amplifier?
Paper S5	Rebekah Brown	grade 10	A Comparison of the Efficiency of Hydroponics and Aquaponics

USDA Agriculture Research Service: Books related to the area of study

6020S	Aliya Nesser	grade 6	How does pollution affect a lake or pond?
6028S	Margaret Underwood	Mother	Nature vs. Miracle-Gro
7094T	Kayla Espindola	grade 7	How Fertilizer Affects Fast Plants
8057S	Laura Burns	grade 8	How Healthy are City Trees?
1076T	Amanda McKenzie	grade 10	How safe is the soil? An Environmental Assessment of the Arsenic Levels of south Minneapolis
1165W	Kyra Underbakke	grade 11	Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules
1161W	Julie Ann Rader	grade 12	Effects of Nitrate Concentration on Nitrogen Fixation by Pea Plants (<i>Pisum sativum</i> L. sv. Oregon Sugar)

Key Health Strategies: Trophy and \$25 cash award

Junior High

6023S	Katerina Kolar	grade 6	Osteoporosis - the Silent Thief
6016W	Felicia Hamann	grade 6	Which cable bridge is stronger? A cable-stay or suspension bridge
7033T	Travis Gabois	grade 7	Fruit Batteries
7086 S	Robert Sabota	grade 7	Ultraviolet Radiation
8063T	Elisse Magnuson	grade 8	Finally, Marriage Pays off: Marital status and breast cancer
8049W	Elaina Hamann	grade 8	Can a Building Be Built to Withstand a Tornado?
8066 W	Mike Pruzinske	grade 8	Does Caffeine Really Boost Your Brainpower?

Senior High

1163T	Natalie Samb	grade 10	Does Seed Starter (Lignite) Cut the Germination Rate and Make the Plants Stronger in Half the Time or Less?
1073T	Hali LittleCloud	grade 12	Traditional sage (<i>salvia officinalis</i>) versus the road salts (NaCl and CaCl ₂)
1170W	Siddharth Damania	grade 11	Developing a Fluorescamine Assay to Probe Cardiac Protein Structure
1170W	Virginia Dines	grade 12	Developing a Fluorescamine Assay to Probe Cardiac Protein Structure
1064W	Sasha Arrieta	grade 9	Biomechanical Analysis of a Lay-up
1143W	Robert Weiner	grade 9	Paintball Predicament
1137T	Jared Richards	grade 10	The Magic Bullet

University of Minnesota Awards-\$1000 Scholarships-conditional acceptance.

1146T	Ethan Chun	grade 11	Effects of Electromagnetic Fields on the Bioluminescence of Dinoflagellates
1165W	Kyra Underbakke	grade 11	Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules
1153T	Casey Heurung	grade 11	Slowing the Rate at Which Lettuce Rusts
1043T	Jacqueline Ross	grade 11	Flammability of E85 vs. Unleaded Gasoline
1051T	Willie Hughes	grade 11	What About Wind Power?
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels

Minnesota Astronomical Society: Certificate and Prize package

7080T	Cameron Hayes	grade 7	Eris and Pluto: What is the Status of the currently known planets in our solar system?
1134W	Anna Plaunt	grade 9	Do Sunspots Affect the Climate in Minnesota?
1138W	Maxwell Robbins	grade 9	Solar Flares/Winds and their Effect on the Earth's Magnetic Fields

Minnesota Space Frontier Society: Certificate and Prize package

7032W	Billy Bird	grade 7	Up, Up, and Away
7037W	Kristina Netterlund	grade 7	Flying on Air
7116 S	Hannah Perry	grade 7	Shooting for the Stars
8101T	Shane Gallagher	grade 8	Paper airplanes
8101T	Luke Wirth	grade 8	Paper airplanes
1004S	Tou Moua	grade 10	How Birds Create Lift
1055W	Brennan Stitt	grade 9	Does Parachute Diameter Affect the Rate of a Rocket's Descent?
1069W	John Woolfrey	grade 9	Aerodynamics
1118W	Andrew Carlson	grade 9	Rockets in Flight
1132W	Caitlin Lewers	grade 9	Weight vs Gliding Distance

Society for In Vitro Biology: Certificate, subscription to Agricultural Research magazine, & winners list published in the fall issue of SIVB Newsletter

1146T	Ethan Chun	grade 11	Effects of Electromagnetic Fields on the Bioluminescence of Dinoflagellates
1100T	Adrienne Sherman	grade 11	Role of BMP4 dependence signaling in generating red blood cells following bone marrow transplant
1165W	Kyra Underbakke	grade 11	Nodulation "stratego" rhizobia edition: The relative fitness of symbiotic rhizobia in legume nodules

Glen Domeier Memorial Award: \$50, Compass and use book to project that best demonstrates excellence in environmental science.

7050S	Alexander Edgerton	grade 7	Down by the river, a water quality analysis
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Killeen Memorial Award: Trophy to the student who best shows inspiration for their project.

7020S	Charlotte Hecht	grade 7	Eggsperiment
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US ARMY-Certificates and 1st Place Medals

Western Suburbs-Medal & Certificate

8022W	Gavin Ovsak	grade 8	Nano Dye-Sensitized Organic Solar Cells
Certificates			
1063W	Kristian Mundahl	grade 9	The Infrared Experience
1118W	Andrew Carlson	grade 9	Rockets in Flight
1081W	Kaitlyn Creasey	grade 12	Tachinid Fly (<i>Lespesia archippivora</i>) Parasitism of Monarch Butterfly Larvae (<i>Danaus plexipus</i>)
1082W	Hanna Hondzo	grade 9	Solar Powered Water Purification System

St. Paul-Medal & Certificate

8046S	Martin Worley-Myers	grade 8	Simple Robotics as Models of Biological Movement
Certificates			
1130S	Ker Lee	grade 9	Bridges
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
8043S	Rachel Lee	grade 8	Wind turbines: The effect of blade configuration on micro voltage output
7050S	Alexander Edgerton	grade 7	Down by the river, a water quality analysis

US ARMY-Certificates and 1st Place Medals

Twin Cities-Medal & Certificate

1091T	Ummul Kathawalla	grade 10	Three Novel Anti-Cancer Agents and their Efficacy on Leukemia B-cells
Certificates			
1015T	Bekah Gudim	grade 10	The Prevalence of Synesthesia in the Artistic Community
1073T	Hali LittleCloud	grade 12	Traditional sage (salvia officinalis) versus the road salts (NaCl and CaCl ₂)
1041T	Andy Pearson	grade 10	Do Temperature and Type of Material Affect the Rate At Which Fire Spreads Across Fabric?
1107T	Daniel Zheng	grade 12	Genomic identification of the germ-line origin of human birth defects: A simulation study

US Navy/US Marine Corps: Certificate and medal

Senior High

1025T	Christine Stelman	grade 10	Exercising Test Scores
1072T	Travis Jensen	grade 10	Habitat Preferences of the Salmo Trutla
1058W	Emal Alwis	grade 9	The Next Great Advancement in Energy: The Hydrogen Fuel Cell

Junior High

8032W	Peter Bergk	grade 8	Hail to Microcell: Preventing Hail Damage to Car Bodies
7041S	Jennifer Chmura	grade 7	Corruption
8029T	Morgan Doyle	grade 8	Signal Strength
7060W	Marika Jeltema	grade 7	Stuck on You

Herbert Hoover Young Engineer Award: Certificate and Medal to the project which best demonstrates outstanding engineering effort.

1067T	Eric He	grade 10	Brain Activity Associated with Video Game Play
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1058W	Emal Alwis	grade 9	The Next Great Advancement in Energy: The Hydrogen Fuel Cell

US Air Force: Certificate, Case, PDA

1132W	Caitlin Lewers	grade 9	Weight vs Gliding Distance
1100T	Adrienne Sherman	grade 11	Role of BMP4 dependence signaling in generating red blood cells following bone marrow transplant
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1150W	Shannon Engelman	grade 12	Effects of 2,4-D on Anthocyanin Pigments in Red Norland Potatoes (<i>Solanum tuberosum</i>)

National Society of Professional Engineers Certificate, lapel pin and subscription to Engineering Times to the most outstanding engineering project.

1057T	Wyatt Yohnk	grade 10	Fuel Additives and Small Engine Efficiency
1050S	Travis Evans	grade 11	The Fundamentals and Possible Improvements for Solar Panels
1058W	Emal Alwis	grade 9	The Next Great Advancement in Energy: The Hydrogen Fuel Cell

"Almost Perfect" Awards: Trophies to teachers who have consistently submitted "almost perfect"

Susan Koppendroyer	Calvin Christian School
Tamra Paschall	St Pascal Baylon School

Just For Fun Awards: Must be present to win

8099T	Adam Braun	grade 8	How Does Sleep Deprivation Affect Human Behaviors and Abilities?
8099T	John Tousignant	grade 8	How Does Sleep Deprivation Affect Human Behaviors and Abilities?
8051S	Phoenix Mongin	grade 8	What Should You Use to Keep Warm at Night?
8062S	Hannah Gulden	grade 8	Does the body temperature of 3 different age groups of females change over the course of a day
8072W	David Voigtlander	grade 8	What's in a Puppy Kiss?
8081W	Kristin Cardinal	grade 8	Bananas
8045W	Andrew Weiler	grade 8	Light Bulbs and Heat
8012W	Caroline salmen	grade 8	Does Music Affect Your Heart Rate?
7078S	Mabel Smebakken	grade 7	Moldy Buildings
7091T	Samantha Creeger	grade 7	Are Plants Ready to Jazz it Up?
7094T	Kayla Espindola	grade 7	How Fertilizer Affects Fast Plants
7063W	Rose Muska	grade 7	Nervous Nerves
7068T	Thomas Rieth	grade 7	How Clean is Your Toothbrush?
7074W	Paige Nagel	grade 7	Resistant Rebels

Outstanding Volunteerism Award: 2007 Medal for plaque and many many thanks for the hard work.

U. S. S. Nokomis Group

Schools-Each school receives a trophy

Agriculture, Food and Science Academy
Annunciation
Anthony Middle School
Blake Upper School
Blessed Trinity
Breck School
Burnsville High School
Calvin Christian School
Capitol Hill
Central Middle School
Cyber Village Academy
Edina High School
Harding High School
Hopkins North Jr High School
Hopkins West Jr High School
IHM-St Luke's School
Immaculate Conception
Jefferson
Johnson High School
Lake Junior High
L'Etoile du Nord French Immersion
Lighthouse Program Learning Alternatives
Maranatha Christian Academy
Minnetonka Middle West
Mounds View High
Murray Jr High School
Nativity of our Lord
Nawayee Center School
North View Junior High
Presentation of the Blessed Virgin Mary
St Anthony Middle School
St Charles Borromeo
St Helena
St John the Baptist
St Pascal's
St. Paul Academy and Summit School
St Peter School
St Raphaels Catholic School
Sunrise Park Middle School
Susan B Anthony Middle School
Transfiguration Catholic School
Vessey Leadership Academy
West Jr. High
Wayzata High School