

2013 Final Awards – ND State Science and Engineering Fair

Agriculture/Soil Science

UND Graduate School

Project Related to Agriculture

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Lakin Mauch, Hankinson School District , The Agricultural Effects of Natural Products on Wheat

UND Graduate School

Project Related to Agriculture

1 winner: Senior Division : Received a cash award of \$100 and a certificate

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Senior Division : Received A Cash Award Of \$75 And A Certificate

Carter Mauch, Hankinson School District , The Effects of Noxious Weeds on Navy Beans

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Senior Division : Received A Cash Award Of \$25 And A Certificate

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Junior Division : Received A Cash Award Of \$75 And A Certificate

Brooklyn Vollmer, Wing School District , Cover Crop Chaos

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Junior Division : Received A Cash Award Of \$25 And A Certificate

Nick Whaley, Park River School District , Erosion Explosion

Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Senior Division : Received A Cash Award Of \$50 And A Certificate

Paige Schmidt, Kidder Co. Tappen School District , Artificially Inseminated or Bull Bred (2)

Brenna Ketterling, Wishek School District , The Effects of Soil Type and Fertilizer on Water Quality

Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Junior Division : Received A Cash Award Of \$25 And A Certificate

Cody Mauch, Hankinson School District , The Effects of Weed Extracts on the Growth of Glycine max

Mya Steinwehr, Hankinson School District , The Effects of Natural Bactericides on Green Beans

Air Force

United States Air Force

Project That Has Applications Useful to Air Force

4 Winners: Junior or Senior Division : Received A Laptop Backpack, A Personal Lunch Bag, A 3-In-1 Calculator/Picture Frame/Lcd Digital Clock, A Helicopter Pen, And A Certificate

Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

Lauren Cain, Oak Grove School District , Wells and Well Being

Matthew Schaeftbauer, Strasburg School District , Programming for Students

Teri Loll, Hankinson School District , The Effects of Antacids on Acidity and the Growth of E. coli

Army

United States Army

Project in All of The ISEF Categories

1 Winner: Senior Division : Received A Certificate In A Presentation Folder A \$50 Cash Award And A Silver Medallion For Science Excellence

Devarshi Patel, Red River School District , Protective Role of Selenium Against Methyl-mercury Poisoning in House Crickets (*Acheta domesticus*)

United States Army

Project in The Engineering Categories

1 Winner: Senior Division : Received A Certificate In A Presentation Folder & A \$25 Cash Award

Matthew Schaeftbauer, Strasburg School District , Programming for Students

United States Army

Project in The Environmental Science Categories

1 Winner: Senior Division : Received A Certificate In A Presentation Folder & A \$25 Cash Award

Alexander Spilman, Mandan School District , Study of TENORM Deposits in Oil Field Equipment

United States Army

Project in Mathematics/Computer Categories

1 Winner: Senior Division : Received A Certificate In A Presentation Folder & A \$25 Cash Award

Sean Loken, Wishek School District , Solar Engine Applications

United States Army

Project in The Physical Science Categories

1 Winner: Senior Division : Received A Certificate In A Presentation Folder & A \$25 Cash Award

Tyler Toepke-Floyd, Wishek School District , Emmission Reduction Through Solvent Polarity

Chemistry/Biochemistry

UND Department of Chemistry

Project in the Chemistry Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

UND Department of Chemistry

Project in the Chemistry Category

1 winner: Senior Division : Received a cash award of \$100 and a \$300 scholarship and a certificate

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

American Association for Clinical Chemistry

Project in Clinical Chemistry

1 Winner: Senior Division : Received A Cash Award Of \$100 And A Certificate

Lucas Ensign, Dickinson School District , Quantitative Analysis of Is-butyl-propanic-phenolic Acid in Various Brands of Ibuprofen Tablets

American Chemical Society-Red River Valley Section

Project in Field of Chemistry

1 Winner: Junior or Senior Division : Received A \$100 Barnes And Noble Gift Card A Certificate And A Periodic Table Refrigerator Magnet

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

NDSSEF Association

Project in Biochemistry

1 Winner: Junior Division : Received A Cash Award of \$50 And A Certificate

Brandon Skjoiten, Hankinson School District , A Chemical and Biological Analysis of Lake Elsie

NDSSEF Association

Project in Biochemistry

1 Winner: Senior Division : Received A Cash Award of \$50 And A Certificate

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

Dentistry/Optomety

North Dakota Optometric Association

Project in Field of Optometry

2 Winners: Senior Division : Received A Cash Award Of \$50 And A Certificate

Caitlyn Miller, Lakota School District , Does Age Affect Afterimage Persistence?

Wyatt Wilm, Hankinson School District , The Distraction Tendencies of Humans

North Dakota Optometric Association

Project in Field of Optometry

2 Winners: Junior Division : Received A Cash Award Of \$50 And A Certificate

Madi Kraft, Sawyer School District , Is There Light in Your Gelatin?

Miranda Penner, Trinity Christian School District , Light, Does It Really Increase Focus?

North Dakota Dental Association

Project Related to Dentistry

2 Winners: Junior Division : Received A Cash Award Of \$50 And A Certificate
Ashley Segal, Oak Grove School District , Inside a Horses Mouth
Shantae Bentz, Trenton School District , An Icky Sticky Situation

North Dakota Dental Association

Project Related to Dentistry

2 Winners: Senior Division : Received A Cash Award Of \$50 And A Certificate
Brennen Boll, Hankinson School District , The Effects of Various Toothpaste on Streptococci
Bacteria
Madysen Houle, Trenton School District , Mouth Invaders

Earth/Atmospheric Sciences

UND Department of Atmospheric Sciences

Project in the Field of Atmospheric Science

1 winner: Junior or Senior Division : Received a cash award of \$75 and a certificate
Erin Haase, Ellendale School District , And the Forecast Is....

UND Department of Geography

Project in the Geography Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate
Abbey Simonson, Oak Grove School District , What's in the Wetlands?

UND Department of Geography

Project in the Geography Category

1 winner: Senior Division : Received a cash award of \$50 and a \$250 scholarship and a certificate
Sarah Telehey, Trinity Christian School District , The Trouble With Typha Latifolia

UND Odegard School of Aerospace Sciences

Project Related to Aerospace Sciences

2 winners: Junior Division : Received a cash award of \$100 and a certificate
Zoey Reyna, Trenton School District , Power Of The Wind
Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

UND Odegard School of Aerospace Sciences

Project Related to Aerospace Sciences

2 winners: Senior Division : Received a cash award of \$200 and a certificate
Sean Loken, Wishek School District , Solar Engine Applications
Isaiah Bender, Sawyer School District , What Fuel Works?

American Society of Photogrammetry and Remote Sensing, St. Louis Region

Project in the Field of Geospatial Mapping or Earth Science

1 Winner: Junior Division : Received a cash award of \$50 and a certificate
Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

American Society of Photogrammetry and Remote Sensing, St. Louis Region

Project in the Field of Geospatial Mapping or Earth Science

1 Winner: Senior Division : Received a cash award of \$50 and a certificate
Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

American Meteorological Society

Project Related to Meteorology

2 Winners: Junior or Senior Division : Received A Certificate

Erin Haase, Ellendale School District , And the Forecast Is....

Colton Lund, Sawyer School District , Balloon Temperature

Association for Women Geoscientists

Project Related to Geosciences

1 Winner (Must Be A Female Exhibitor): Junior or Senior Division : Received A Certificate And

One Year Membership To The AWG North Dakota Chapter

Kelsey Gaukler, Hankinson School District , The Hydrological Assessment of Area Lakes

National Oceanic & Atmospheric Administration

Project Related to Improved Understanding of The Earth's Processes

1 Winner: Junior Division : Received A Certificate And A Medallion

Cody Mauch, Hankinson School District , The Effects of Weed Extracts on the Growth of Glycine
max

North Dakota Geological Society

Project in Field of Geology or Earth Science

1 Winner: Junior Division : Received A Cash Award Of \$50 And A Certificate

Cody Mauch, Hankinson School District , The Effects of Weed Extracts on the Growth of Glycine
max

North Dakota Geological Society

Project in Field of Geology or Earth Science

1 Winner: Senior Division : Received A Cash Award Of \$50 And A Certificate

Alexander Spilman, Mandan School District , Study of TENORM Deposits in Oil Field Equipment

Energy/Power/Electricity

Ottertail Power Company

Project Related to Energy or Electricity

3 Winners: Senior Division : Received A Cash Award Of \$50 And A Certificate

Hunter Pinke, Wishek School District , Which Type of Glass Holds and Resists Heat Most
Efficiently?

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as
Biopesticides

Preston Miller, Sawyer School District , A New Source

Ottertail Power Company

Project Related to Energy or Electricity

2 Winners: Junior Division : Received A Cash Award Of \$50 And A Certificate

Alec Stroh, Kidder Co. Tappen School District , Making Energy with Coins

Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

Xcel Energy

Project Related to Energy or Electricity

3 Winners: Junior Division : Received A Cash Award Of \$25 And A Certificate

Zoey Reyna, Trenton School District , Power Of The Wind

Alec Stroh, Kidder Co. Tappen School District , Making Energy with Coins

Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

Xcel Energy

Project Related to Energy or Electricity

3 Winners: Senior Division : Received A Cash Award Of \$25 And A Certificate

Jasmine Kreft, Trinity Christian School District , The Evolution Of Alternative Fuel Production
Derived From Invasive Eurasian Milfoil

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as
Biopesticides

Preston Miller, Sawyer School District , A New Source

MDU Resources Group, Inc.

Project Related to Energy or Electricity

3 Winners: Senior Division : Received A Cash Award Of \$25 And A Certificate

Max Freed, Trinity Christian School District , Decomposing Energy

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as
Biopesticides

Preston Miller, Sawyer School District , A New Source

MDU Resources Group, Inc.

Project Related to Energy or Electricity

3 Winners: Junior Division : Received A Cash Award Of \$25 And A Certificate

Spencer Green, Oak Grove School District , Crystal Radio Signal Strength

Alec Stroh, Kidder Co. Tappen School District , Making Energy with Coins

Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

Engineering

UND Department of Chemical Engineering

Project in the Chemical Engineering Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Alec Stroh, Kidder Co. Tappen School District , Making Energy with Coins

UND Department of Chemical Engineering

Project in the Chemical Engineering Category

1 winner: Senior Division : Received a cash award of \$50 and a certificate

Alexander Spilman, Mandan School District , Study of TENORM Deposits in Oil Field Equipment

UND Department of Civil Engineering

Project in the Civil Engineering Category

1 winner: Junior Division : Received a cash award of \$25 and a certificate

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

UND Department of Civil Engineering

Project in the Civil Engineering Category

1 winner: Senior Division : Received a cash award of \$25 and a certificate

Sarah Telehey, Trinity Christian School District , The Trouble With Typha Latifolia

UND Department of Electrical Engineering

Project in the Electrical Engineering Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Rory Waliser, Lisbon School District , Magnetic Rifle!

UND Department of Electrical Engineering

Project in the Electrical Engineering Category

1 winner: Senior Division : Received a cash award of \$50 and a certificate

Preston Miller, Sawyer School District , A New Source

UND Department of Mechanical Engineering

Project in the Mechanical Engineering Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Juliann Spilman, Mandan School District , Error Anaysis: The Math of Mistakes

UND Department of Mechanical Engineering

Project in the Mechanical Engineering Category

1 winner: Senior Division : Received a cash award of \$50 and a certificate

Eva Byerley, Ellendale School District , Dig the Force

UND School of Engineering & Mines

Project Related to Engineering

1 Winner: Junior Division : Received a cash award of \$100 and a certificate

Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

UND School of Engineering & Mines

Project Related to Engineering

1 Winner: Senior Division : Received a cash award of \$200 and a certificate

Jasmine Kreft, Trinity Christian School District , The Evolution Of Alternative Fuel Production

Derived From Invasive Eurasian Milfoil

IEEE Red River Valley Section

Project in Electrical Engineering

1 Winner: Senior Division : Received a cash award of \$50 and a certificate

Sean Loken, Wishek School District , Solar Engine Applications

IEEE Red River Valley Section

Project in Electrical Engineering

1 Winner: Junior Division : Received a cash award of \$50 and a certificate

Spencer Green, Oak Grove School District , Crystal Radio Signal Strength

ASM Materials Education Foundation

Project in Materials Engineering

1 Winner: Junior or Senior Division : Received A Medallion And A Certificate

Adam Hulm, Strasburg School District , Which Fabric Retains the Most Water?

National Society of Professional Engineers

Project in Engineering Category

1 Winner: Junior or Senior Division : Received A Certificate And A Lapel Pin

Tyler Toepke-Floyd, Wishek School District , Emmission Reduction Through Solvent Polarity

Society of Automotive Engineers

Project in Mobility Engineering

1 Winner: Junior Division : Received A Cash Award Of \$100 And A Certificate

Wesley Kemp, Valley/Edinburgh School District , The Friction Factor

Society of Automotive Engineers

Project in Mobility Engineering

1 Winner: Senior Division : Received A Cash Award Of \$100 And A Certificate

Tyler Toepke-Floyd, Wishek School District , Emmission Reduction Through Solvent Polarity

Environmental Science

UND School of Engineering & Mines

Project in Energy or Environmental Science Categories

1 Winner: Senior Division : Received a cash award of \$100 and a certificate

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

UND School of Engineering & Mines

Project in Energy or Environmental Science Categories

1 Winner: Junior Division : Received a cash award of \$50 and a certificate

Zoey Reyna, Trenton School District , Power Of The Wind

Association of North Dakota Geographers

Project in the Field of Human-Environment Interaction

1 Winner: Senior Division : Received a cash award of \$125 and a certificate

Alexander Spilman, Mandan School District , Study of TENORM Deposits in Oil Field Equipment

Ricoh Corporation

Project Related to Environmentally Friendly Businesses

1 Winner: Senior Division : Received A Certificate

Hunter Pinke, Wishek School District , Which Type of Glass Holds and Resists Heat Most Efficiently?

Coalition for Conservation & Environmental Education

Outstanding Environmental Project

1 Winner: Senior Division : Received A Cash Award Of \$50 A Large Purple Rosette Ribbon And A Certificate

Hunter Pinke, Wishek School District , Which Type of Glass Holds and Resists Heat Most Efficiently?

Coalition for Conservation & Environmental Education

Outstanding Environmental Project

1 Winner: Junior Division : Received A Cash Award Of \$50 A Large Purple Rosette Ribbon And A Certificate

Abbey Simonson, Oak Grove School District , What's in the Wetlands?

NDSSEF Association

Project Related to Environmental Pollution and/or Remediation

1 Winner: Junior Division : Received A Cash Award of \$50 And A Certificate

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

NDSSEF Association

Project Related to Environmental Pollution and/or Remediation

1 Winner: Senior Division : Received A Cash Award of \$50 And A Certificate

Tyler Toepke-Floyd, Wishek School District , Emission Reduction Through Solvent Polarity

Human Nutrition/Nursing

UND Department of Nutrition & Dietetics

Project in the Area of Nutrition and Food Science

1 winner: Junior Division : Received a cash award of \$25 and a certificate

Martin Krump, Hankinson School District , A Comparison of Cheese Production of Swiss Dairy Goats

UND Department of Nutrition & Dietetics

Project in the Area of Nutrition and Food Science

1 winner: Senior Division : Received a cash award of \$50 and a \$250 scholarship and a certificate

Jennifer Riemann, Hankinson School District , The Contamination Levels of Ground Beef and the Preserving Abilities of Tannins

UND College of Nursing & Professional Disciplines

Project Related to Nursing

2 winners: Junior Division : Received a cash award of \$100 and a certificate

Dusti Seidel, Trenton School District , How's It Affected?

Camryn Schall, Schroeder School District , Osteoporosis

UND College of Nursing & Professional Disciplines

Project Related to Nursing

2 winners: Senior Division : Received a cash award of \$200 and a certificate

Gracia Eder, Trinity Christian School District , Do You Trust Your Soap For Blood Sugar Testing?

Barbara Senger, Mandan School District , Lose the Ooze! How Effective is "Whizzer" on Cleaning Wrestling Mats?

U.S. Department of Health and Human Service

Project Promoting Healthy Life Style

1 Winner: Junior or Senior Division : Received A Certificate And A Medallion

Wyatt Limke, Berthold School District , Effects of Caffeine on Reaction Time

UND Department of Psychology

Project in the Psychology or Behavioral Science Category

1 winner: Junior Division : Received a cash award of \$100 and a certificate

Isabella Froehling, Wishek School District , Stand Straight

UND Department of Psychology

Project in the Psychology or Behavioral Science Category

1 winner: Senior Division : Received a cash award of \$100 and a certificate

Kate Fox, Wing School District , Which Scents Make Sense?

Humanities/Social/Behavioral Sciences

UND Department of Sociology

Project in the Social Science Category

1 winner: Junior Division : Received a cash award of \$150 and a certificate

Mya Vetter, Linton School District , Men vs Women: A Statistical Analysis of Marketing

UND Department of Sociology

Project in the Social Science Category

1 winner: Senior Division : Received a cash award of \$150 and a certificate

Zachary Kringstad, Valley/Edinburg School District , The Effects of Exercise on Learning and Memory Patterns in Mice*

UND College of Arts & Sciences

Project in the Fields of Social or Behavioral Science

1 Winner: Senior Division : Received a cash award of \$100 and a certificate

Wyatt Wilm, Hankinson School District , The Distraction Tendencies of Humans

UND College of Arts & Sciences

Project in the Fields of Social or Behavioral Science

1 Winner: Junior Division : Received a cash award of \$50 and a certificate

Toby Zikmund, Park River School District , The Effects of Music on Hand-Eye Coordination

Virginia George Inheritance Fund

Project in the Fields of Social or Behavioral Science

1 Winner: Senior Division : Received a cash award of \$125 and a certificate

Kelsey Guttormson, Tioga School District , Mind Over Matter

Virginia George Inheritance Fund

Project in the Fields of Social or Behavioral Science

1 Winner: Junior Division : Received a cash award of \$75 and a certificate

Chase Bader, Wishek School District , How Many Numbers Can You Remember?

American Psychological Association

Project Related to Psychology

1 Winner: Junior or Senior Division : Received A Certificate

Zachary Kringstad, Valley/Edinburg School District , The Effects of Exercise on Learning and Memory Patterns in Mice*

ISEF Alumni

ISEF Alumni

Project as Determined By ISEF Judges

1 Winner: Junior or Senior Division : Received A Cash Award Of \$200 And A Certificate

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

ISEF Alumni

Project as Determined By ISEF Judges

1 Winner: Junior or Senior Division : Received A Cash Award Of \$100 And A Certificate

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

Life Sciences

UND Department of Biochemistry and Molecular Biology

Project in the Area of Life Sciences

2 winners: Junior Division : Received a cash award of \$50 and a certificate

Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

Sadie Schaubel, Trenton School District , Mr. Clean?

UND Department of Biochemistry and Molecular Biology

Project in the Area of Life Sciences

2 winners: Senior Division : Received a cash award of \$50 and a certificate

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

UND Department of Biology

Project in the Biology Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

UND Department of Biology

Project in the Biology Category

1 winner: Senior Division : Received a cash award of \$100 and a \$300 scholarship and a certificate

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division : Received A Cash Award Of \$100 And A Certificate

Paige Schmidt, Kidder Co. Tappen School District , Artificially Inseminated or Bull Bred (2)

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division : Received A Cash Award Of \$75 And A Certificate

Devarshi Patel, Red River School District , Protective Role of Selenium Against Methyl-mercury Poisoning in House Crickets (*Acheta domesticus*)

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Junior Division : Received A Cash Award Of \$25 And A Certificate

Ashley Segal, Oak Grove School District , Inside a Horses Mouth

North Dakota Veterinary Medical Assn. Auxiliary

Project Related to Veterinary Medicine

1 Winner: Junior Division : Received A Cash Award Of \$50 A Certificate And A Pin

Martin Krump, Hankinson School District , A Comparison of Cheese Production of Swiss Dairy Goats

NDSSEF Association

Project in Botany

1 Winner: Junior Division : Received A Cash Award of \$50 And A Certificate

Cody Mauch, Hankinson School District , The Effects of Weed Extracts on the Growth of Glycine max

NDSSEF Association

Project in Botany

1 Winner: Senior Division : Received A Cash Award of \$50 And A Certificate

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

Math/Computer Science

UND Department of Computer Science

Project in the Computer Science Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Jackson Holm, Schroeder School District , Educational Video Games*

UND Department of Computer Science

Project in the Computer Science Category

1 winner: Senior Division : Received a cash award of \$50 and a certificate

Holly Krumm, Strasburg School District , A Mathematical Analysis of Bach's Fugues

UND Department of Mathematics

Project in the Mathematics Category

1 winner: Junior Division : Received a cash award of \$50 and a certificate

Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

UND Department of Mathematics

Project in the Mathematics Category

1 winner: Senior Division : Received a cash award of \$100 and a \$500 scholarship and a certificate

Holly Krumm, Strasburg School District , A Mathematical Analysis of Bach's Fugues

Intel Excellence In Computer Science

Project in Computer Science Category

1 Winner: Senior Division : Received A Cash Award Of \$200 And A Certificate

Matthew Schaeftbauer, Strasburg School District , Programming for Students

Mu Alpha Theta

Project Involving Modern Mathematics

1 Winner: Senior Division : Received A Certificate

Eva Byerley, Ellendale School District , Dig the Force

Medicine/Health

UND Department of Anatomy

Project Related to Medical or Health Sciences

1 winner: Junior Division : Received a cash award of \$100 and a certificate

Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

UND Department of Anatomy

Project Related to Medical or Health Sciences

1 winner: Senior Division : Received a cash award of \$100 and a certificate

Tayson O'Hara, Hankinson School District , The Antimicrobial Effect of Deciduous Tree Bark

UND Department of Pathology

Project Related to Medical or Health Sciences

2 winners: Junior Division : Received a cash award of \$100 and a certificate

Mya Steinwehr, Hankinson School District , The Effects of Natural Bactericides on Green Beans

Riley McLean, Bismarck Cathedral School District , Ice Please?

UND Department of Pathology

Project Related to Medical or Health Sciences

2 winners: Senior Division : Received a cash award of \$100 and a certificate

Teri Loll, Hankinson School District , The Effects of Antacids on Acidity and the Growth of E. coli

Barbara Senger, Mandan School District , Lose the Ooze! How Effective is "Whizzer" on Cleaning Wrestling Mats?

UND School of Medicine & Health Sciences

Project Related to Medical or Health Sciences

1 Winner: Senior Division : Received a cash award of \$100 and a certificate

Jennifer Riemann, Hankinson School District , The Contamination Levels of Ground Beef and the Preserving Abilities of Tannins

UND School of Medicine & Health Sciences

Project Related to Medical or Health Sciences

1 Winner: Junior Division : Received a cash award of \$50 and a certificate

Lauren Cain, Oak Grove School District , Wells and Well Being

UND School of Medicine & Health Sciences

Project Related to Medical or Health Sciences

1 Winner: Junior Division : Received a cash award of \$100 and a certificate

Martin Krump, Hankinson School District , A Comparison of Cheese Production of Swiss Dairy Goats

UND School of Medicine & Health Sciences

Project Related to Medical or Health Sciences

1 Winner: Senior Division : Received a cash award of \$200 and a certificate

Brennen Boll, Hankinson School District , The Effects of Various Toothpaste on Streptococci Bacteria

North Dakota Academy of Family Physicians

Project Related to Medicine

1 Winner: Senior Division : Received A Cash Award Of \$50 And A Certificate

Kelsey Guttormson, Tioga School District , Mind Over Matter

North Dakota Society for Clinical Laboratory

Project Related to Laboratory Medicine

1 Winner: Senior Division : Received A Cash Award Of \$50 And A Certificate

Wyatt Limke, Berthold School District , Effects of Caffeine on Reaction Time

North Dakota Society for Clinical Laboratory

Project Related to Laboratory Medicine

1 Winner: Junior Division : Received A Cash Award Of \$50 And A Certificate

Kristen Larson, Park River School District , Grooming and Heart Rate

Kingsbury Outstanding Health Science Project

Outstanding Project Related to Health Sciences

1 Winner: Junior Division : Received A Cash Award of \$50 and a certificate

Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

Microbiology/Pharmacology

UND Department of Microbiology / Immunology

Project Related to Microbiology / Immunology or Infectious Disease

2 winners: Junior Division : Received a cash award of \$50 and a certificate

Gracie Mosher, Hankinson School District , The Comparison of Dishwashing Liquids

Lakin Mauch, Hankinson School District , The Agricultural Effects of Natural Products on Wheat

UND Department of Microbiology / Immunology

Project Related to Microbiology / Immunology or Infectious Disease

2 winners: Senior Division : Received a cash award of \$100 and a certificate

Jennifer Riemann, Hankinson School District , The Contamination Levels of Ground Beef and the Preserving Abilities of Tannins

Brennen Boll, Hankinson School District , The Effects of Various Toothpaste on Streptococci Bacteria

UND Department of Pharmacology, Physiology & Therapeutics

Project Related to Medical or Health Sciences

1 winner: Junior Division : Received a cash award of \$100 and a certificate

Bailey Beneda, Fordville/Lankin School District , Can Exercise Affect Your Brain?

UND Department of Pharmacology, Physiology & Therapeutics

Project Related to Medical or Health Sciences

1 winner: Senior Division : Received a cash award of \$100 and a certificate

Kelsey Gaukler, Hankinson School District , The Hydrological Assessment of Area Lakes

North Dakota Pharmacists Association

Project in Field of Pharmacology

1 Winner: Junior Division : Received A Cash Award Of \$75 And A Certificate
Sienna Smith, Schreoder, GF School District , Are You Hyped Up?

North Dakota Pharmacists Association

Project in Field of Pharmacology

1 Winner: Senior Division : Received A Cash Award Of \$100 And A Certificate
Tayson O'Hara, Hankinson School District , The Antimicrobial Effect of Deciduous Tree Bark

Navy

United States Navy

Project (All Categories Considered)

3 Winners: Senior Division : Received An Educational Recognition Award Valued At \$75 A
Medallion And A Certificate

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as
Biopesticides

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

United States Navy

Project (All Categories Considered)

3 Winners: Junior Division : Received A Medallion And A Certificate

Mya Steinwehr, Hankinson School District , The Effects of Natural Bactericides on Green Beans

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

Wesley Kemp, Valley/Edinburgh School District , The Friction Factor

Physics

UND Department of Physics & Astrophysics Physics

Project in the Physics Category

1 winner: Junior Division : Received a cash award of \$100 and a certificate
Wesley Kemp, Valley/Edinburgh School District , The Friction Factor

UND Department of Physics & Astrophysics Physics

Project in the Physics Category

1 winner: Senior Division : Received a cash award of \$100 and a \$500 scholarship and a certificate
Eva Byerley, Ellendale School District , Dig the Force

United States Metric Association

Project Using Metric System for Measurements

5 Winners: Junior Division : Received A Certificate

Kerstin Grubb, Tioga School District , Milk Or Plastic?

Wesley Kemp, Valley/Edinburgh School District , The Friction Factor

Jordan Saxerud, Lisbon School District , Stifling Surges

Rory Waliser, Lisbon School District , Magnetic Rifle!

Preston Degerman, Oak Grove School District , Does the Surface Affect the Splat?

North Dakota Physics Teachers

Project in Area of Physics or Physical Science

1 Winner: Senior Division : Received A Cash Award Of \$25 And A Certificate

Tony Krautbauer, Hankinson School District , The Effects of Flour on Combustion and Shelf Life of Bread

North Dakota Physics Teachers

Project in Area of Physics or Physical Science

1 Winner: Junior Division : Received A Cash Award Of \$25 And A Certificate

Preston Degerman, Oak Grove School District , Does the Surface Affect the Splat?

Sweepstakes

UND College of Arts & Sciences

Outstanding Math or Science Project

1 Winner (must be a female exhibitor): Senior Division : Received a cash award of \$100 and a certificate

Jasmine Kreft, Trinity Christian School District , The Evolution Of Alternative Fuel Production Derived From Invasive Eurasian Milfoil

UND College of Arts & Sciences

Outstanding Math or Science Project

1 Winner (must be a female exhibitor): Junior Division : Received a cash award of \$50 and a certificate

Mya Steinwehr, Hankinson School District , The Effects of Natural Bactericides on Green Beans

UND Office of Research & Economic Development

Project exhibiting Exceptional Creativity

1 winner: Junior or Senior Division : Received a \$500 gift certificate to the UND Bookstore and a certificate

Bailey Hagen, Trenton School District , Fishy Medicine

Yale Science and Engineering Association

Project in Computer Science, Engineering, Physics, or Chemistry

1 Winner: 11Th Grader Division : Received A Medallion And A Certificate

Tyler Toepke-Floyd, Wishek School District , Emmission Reduction Through Solvent Polarity

Water Quality

Water Environment Federation

Project Related to Water Quality or Water Conditions

1 Winner: Junior or Senior Division : Received A Certificate

Jasmine Kreft, Trinity Christian School District , The Evolution Of Alternative Fuel Production Derived From Invasive Eurasian Milfoil

American Water Works Association

Project Related to Drinking Water Quality

1 Winner: Junior Division : Received A Cash Award Of \$75 And A Certificate

Brandon Skjoiten, Hankinson School District , A Chemical and Biological Analysis of Lake Elsie

American Water Works Association

Project Related to Drinking Water Quality

1 Winner: Senior Division : Received A Cash Award Of \$75 And A Certificate

Kelsey Gaukler, Hankinson School District , The Hydrological Assessment of Area Lakes

North Dakota Water Environment Association

Project Related to Water Quality

1 Winner: Senior Division : Received A Cash Award Of \$75 And A Plaque

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution

North Dakota Water Environment Association

Project Related to Water Quality

1 Winner: Junior Division : Received A Cash Award Of \$75 And A Plaque

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

North Dakota Rural Water Systems Association

Project Related to Water Quality

1 Winner: Senior Division : Received A Cash Award Of \$100 And A Plaque

Brenna Ketterling, Wishek School District , The Effects of Soil Type and Fertilizer on Water Quality

Junior Division Place Winners

All first and second place winners received a gold plaque. All third and fourth place winners receive a silver plaque.

Northwest Region

1st Place - Grace Dragseth, East Fairview School District , Going Green With Insulation

2nd Place - Greta Eder, Trinity Christian School District , Temperature Effects On Durum Germination

3rd Place - Dusti Seidel, Trenton School District , How's It Affected?

4th Place - Zoey Reyna, Trenton School District , Power Of The Wind

North Central Region

1st Place - Alivia Schweitzer, Berthold School District , Reaction Time: What Age is Faster?

2nd Place - Madi Kraft, Sawyer School District , Is There Light in Your Gelatin?

3rd Place - Kaylee Lybeck, Leeds School District , Effects of Medicines on Plant Growth

4th Place - Erin Jorgenson, Leeds School District , How Permanent are Permanent Markers?

Northeast Region

1st Place - Wesley Kemp, Valley/Edinburgh School District , The Friction Factor

2nd Place - Nick Whaley, Park River School District , Erosion Explosion

3rd Place - Camryn Schall, Schroeder School District , Osteoporosis

4th Place - Sienna Smith, Schroeder, GF School District , Are You Hyped Up?

Southwest Central Region

1st Place - Eric Spilman, Mandan School District , Impact of Sun's Angle on Solar Panels

2nd Place - Riley McLean, Bismarck Cathedral School District , Ice Please?

3rd Place - Brooklyn Vollmer, Wing School District , Cover Crop Chaos

4th Place - Mya Vetter, Linton School District , Men vs Women: A Statistical Analysis of Marketing

Southeast Central Region

1st Place - Cole Ketterling, Wishek School District , Liquid Fertilizers Effect on Corn

2nd Place - Alec Stroh, Kidder Co. Tappen School District , Making Energy with Coins

3rd Place - Kadey Holm, Ellendale School District , Wipe It all Up!

4th Place - Chase Bader, Wishek School District , How Many Numbers Can You Remember?

Southeast Region

1st Place - Preston Degerman, Oak Grove School District , Does the Surface Affect the Splat?

2nd Place - Betsy Asp, Hankinson School District , The Antibiotic Potential of Natural Herbs

3rd Place - Martin Krump, Hankinson School District , A Comparison of Cheese Production of Swiss Dairy Goats

4th Place - Ashley Segal, Oak Grove School District , Inside a Horses Mouth

Junior Division Sweepstakes Winners

The first place (Sweepstakes) winner received a gold state plaque and a \$100 cash award from the University of North Dakota Graduate School.

The second place (Sweepstakes Runner-Up) winner received a silver plaque and a \$50 cash award from the University of North Dakota Graduate School.

Junior Division 1st Place – Sweepstakes Winner

Mya Steinwehr, Hankinson School District , The Effects of Natural Bactericides on Green Beans

Junior Division 2nd Place - Sweepstakes Runner-Up

Dale Spilman, Mandan School District , Effective Treatment of Ammonia in Wastewater

Senior Division Place Winners

All first and second place winners received a gold plaque and a hooded sweatshirt and will advance to the ISEF in Phoenix Arizona in May and will exhibit their project.

All third and fourth place winners received a silver plaque and are alternates to the ISEF in Phoenix Arizona in May but will not exhibit their project unless a first or second place winner cannot attend.

Northwest Region

1st Place - Jasmine Kreft, Trinity Christian School District , The Evolution Of Alternative Fuel Production Derived From Invasive Eurasian Milfoil

2nd Place - Sarah Telehey, Trinity Christian School District , The Trouble With Typha Latifolia

3rd Place - Kelsey Guttormson, Tioga School District , Mind Over Matter

4th Place - Bailey Hagen, Trenton School District , Fishy Medicine

North Central Region

1st Place - Wyatt Limke, Berthold School District , Effects of Caffeine on Reaction Time

2nd Place - Mara Roteliuk, Sawyer School District , E. Coli vs. Disinfectants

3rd Place - Isaiah Bender, Sawyer School District , What Fuel Works?

(1st Place winner is the only presenter from region at ISEF.)

Northeast Region

1st Place - Devarshi Patel, Red River School District , Protective Role of Selenium Against Methyl-mercury Poisoning in House Crickets (*Acheta domesticus*)

2nd Place - Shelby Cyr, Valley/Edinburg School District , The Effects of Radiation on DNA*

3rd Place - Taylor Anderson, Lakota School District , Are You Leading Me On?

4th Place - Danielle Durand, Valley/Edinburg School District , The Effect of Increasing Radiation on the Growth of Bacteria

Southwest Central Region

1st Place - Kellie Tougas, Strasburg School District , FORENSICS: Testing for Lead

2nd Place - Matthew Schaeffbauer, Strasburg School District , Programming for Students

3rd Place - Eileen Spilman, Mandan School District , Realtime Proxy Analytical Method for Chloride in Water

4th Place - Alexander Spilman, Mandan School District , Study of TENORM Deposits in Oil Field Equipment

5th Place – Barbara Senger, Mandan School District, Lose the Ooze! How effective is ‘Whizzer’ on Cleaning Wrestling Mats?

(3rd Place winner is also a presenter from region at ISEF)

Southeast Central Region

1st Place - Tyler Toepke-Floyd, Wishek School District , Emmission Reduction Through Solvent Polarity

2nd Place - Sean Loken, Wishek School District , Solar Engine Applications

3rd Place - Eva Byerley, Ellendale School District , Dig the Force

4th Place - Hunter Pinke, Wishek School District , Which Type of Glass Holds and Resists Heat Most Efficiently?

Southeast Region

1st Place - Carter Mauch, Hankinson School District , The Effects of Noxious Weeds on Navy Beans

2nd Place - Tayson O'Hara, Hankinson School District , The Antimicrobial Effect of Deciduous Tree Bark

3rd Place - Jennifer Riemann, Hankinson School District , The Contamination Levels of Ground Beef and the Preserving Abilities of Tannins

4th Place - Teri Loll, Hankinson School District , The Effects of Antacids on Acidity and the Growth of E. coli

Senior Division Sweepstakes Winners

The first place (Marcus.J.Friskop Sweepstakes) winner received a gold state plaque, a hooded sweatshirt, a \$200 cash award from the Marcus Friskop Family, a \$500 cash award from the University of North Dakota Vice President of Research and Economic Development, and a \$12,000 scholarship (\$3000 per year for four years) to the University of North Dakota and will advance to the ISEF in Phoenix Arizona in May and will exhibit his/her project.

The second place (sweepstakes runner-up) winner received a gold state plaque, a hooded sweatshirt, a \$250 cash award from the University of North Dakota Vice President of Research and Economic Development, and a \$10,000 scholarship (\$2500 per year for four years) to the University of North Dakota and will advance to ISEF in Phoenix Arizona in May and will exhibit his/her project.

The third place (sweepstakes 2nd runner-up) winner received a state plaque, a hooded sweatshirt and a \$150 cash award from the University of North Dakota Graduate School and will advance to the ISEF in Phoenix Arizona in May and will exhibit his/her project.

Senior Division – 1st Place – Sweepstakes Winner

Dre Steinwehr, Hankinson School District , The Usage of Polyphenol and Spinosad Compounds as Biopesticides

Senior Division – 2nd Place – Sweepstakes Runner-Up

Grady Mauch, Hankinson School District , The Fungicidal Attributes of Invasive Plants on Soybeans

Senior Division – 3rd Place – Sweepstakes Second Runner-Up

Gage Metzen, Hankinson School District , Aquatic Plants: Today's Solution to River Pollution