

2019 – Final Awards – ND State Science & Engineering Fair

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 J. Friskop Family, a \$500 cash award from the University of North Dakota Admissions and Financial Aid, and a 1 Year \$2500 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona 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 Division Admissions and Financial Aid, and a 1 Year \$2000 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona and will exhibit his/her project.

The third place (sweepstakes 2nd runner-up) winner received a state plaque, a hooded sweatshirt, a \$200 cash award from the University of North Dakota Admissions and Financial Aid, and a 1 Year \$1000 Scholarship to the University of North Dakota and will advance to the ISEF in Phoenix Arizona and will exhibit his/her project.

Senior Division – 1st Place – Sweepstakes Winner

Emma Kratcha, Hankinson School District , "Using Soil Enhancements to Increase Zea mays Profitability in Limited Production Agricultural Areas"

Senior Division – 2nd Place – Sweepstakes Runner-Up

Shri Patel, Red River School District , "Epigenetic Targets in Longevity Control in Drosophila melanogaster"

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

Abigail Post, Hankinson School District , "An Application of Titanium Dioxide Coatings to Reduce Nitrogen Oxides"

Senior Division Place Winners

Projects that are selected as finalists received a gold plaque and a hooded sweatshirt and will advance to the ISEF in Phoenix Arizona in May and will exhibit their project.

Projects selected as alternates received a silver plaque and are alternates to the ISEF in Phoenix Arizona in May but will not exhibit their project unless a finalist from that region cannot attend.

Northwest Region

1st Finalist: Brody LaRoque, Trenton School District, "A Safer Pipeline Design"

2nd Finalist: Mikayla Wolfe, Tioga School District, "(H₂O)h My!"

3rd Finalist: Bryan Martinez, Trenton School District, "Effects of Sodium in Nature"

1st Alternate: Cameron Taylor, Tioga School District, "Password Security"

2nd Alternate: Lydia Carr, Tioga School District, "What's Up With All Of These Negative Political Ads?"

Northeast Region

1st Finalist: Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

1st Alternate: Matt Koski, Lakota School District , "Which Organic Fertilizer is Most Effective Part III"

2nd Alternate: Macy Herda, Lakota School District , "Swimming In Acid"

Southwest Central Region

1st Finalist: Halle Rivinius, Grant School District , "Fats"

2nd Finalist: Abbigale Steeke, Scranton School District , "The Public Perception On Meat Labeling"

1st Alternate: Madelyn Sauter, Grant School District , "Robotics in Agriculture"

2nd Alternate: Alexis Imholte & Sophia McLeish, Mandan School District , "Tendon Repair and Stitch Pattern"

Southeast Central Region

1st Finalist: Megan Beyer, Litchville-Marion School District , "KEVAN - Keven Efficient Videogame Playing Artificial Neural Net"

2nd Finalist: Bryce Goettle, Ashley School District , "Electromagnetic Breaking: Efficiency Relative to Position"

1st Alternate: Alexis Kempf, Ashley School District , "Surviving with Solar"

2nd Alternate: Morgan Dutton, Kidder County School District , "Factors Affecting Dewormer Efficiency"

Southeast Region

1st Finalist: Emerson Falk, Hankinson School District , "An Analysis of Microbial Reduction Methods for Lake Water"

2nd Finalist: Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

1st Alternate: Allison Habib, Hankinson School District , "A Chemical Analysis of Various Water Sources"

2nd Alternate: Braden Prochnow, Hankinson School District , "Can Spectroscopy Indicate Bacterial Quantities?"

Junior Division Sweepstakes Winners

The first place (Sweepstakes) winner received a gold state plaque, a \$125 cash award from the ND IDeA Network of Biomedical Research Excellence and a \$250 cash award in honorarium of Marcus J. Friskop from the Maddock High School Science Fair Alumni Students.

The second place (Sweepstakes Runner-Up) winner received a silver plaque and a \$75 cash award from the ND IDeA Network of Biomedical Research Excellence.

Junior Division 1st Place – Sweepstakes Winner

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

Junior Division 2nd Place – Sweepstakes Runner-Up

Sophus Hammond, Valley Middle School , "The Art of Photogra-Tree"

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: Brock Sundhagen, Tioga School District , "Hydro Power"

2nd Place: Gracie Nutt, Tioga School District , "Do You Need a Helping Hand?"

3rd Place: Emma Taylor, Tioga School District , "Are You Brushing With Bacteria?"

4th Place: Riley Pederson, Tioga School District , "My Wonderous Rolling Wonder!"

Northeast Region

1st Place: Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

2nd Place: Preston Diedrich, Schroeder Middle School , "Dist-Sense"

3rd Place: Katie Swartz, Schroeder Middle School , "Beating Bacteria"

4th Place: Taylor Wilson, Schroeder Middle School , "Hot to Trot"

Southwest Central Region

1st Place: Riley Richter, Linton School District , "Can You Hear Me Now"

2nd Place: Merissa Meyer, Grant County School District , "Bye, Bye, Bacteria"

3rd Place: Layton Woodburty, Flasher School District , "Ice Shovel"

4th Place: Joseph Richter, Flasher School District , "Cell Phone Radiation"

Southeast Central Region

1st Place: Marshall Lindgren, Ashley School District , "Egg Production"

2nd Place: Cora Schaunaman, Ashley School District , "Creep Feed of Mixed Ration"

3rd Place: Christopher Pfeifle, Ashley School District , "Organic vs. Commercial Mouthwash"

4th Place: Hannah Seefeld, Ellendale School District , "You Call This Living"

Southeast Region

1st Place: Brooklyn Bergemann, Lisbon School District , "Call? Or Text?"

2nd Place: Leah Saxberg, Griggs County Central School District , "Does Fertilizer Affect Soybeans?"

3rd Place: Piper Suhr, Griggs County Central School District , "The Effect of Caffeine on the Mind and Body"

4th Place: Bladow/Sheggerud Team, Hankinson School District , "Dirty Money"

Agriculture/Soil Science

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Senior Division: A Cash Award of \$150 And a Certificate

Joshua Olson, Ellendale School District , "Light It Up!"

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

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

Emma Kratcha, Hankinson School District , "Using Soil Enhancements to Increase Zea mays Profitability in Limited Production Agricultural Areas"

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

1 Winner: Junior Division: A Cash Award of \$150 And a Certificate

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

North Dakota Soil Conservation District/Auxiliary

Project Related to Soil Conservation

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

Grace Mehlhoff, Wing School District , "Power of Erosion"

Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Madelyn Schmidt, Kidder County School District , "The Presence of Primary Plant Nutrient Levels in Soil After Methane Gas Production"

Laura Muggli, Grant School District , "Glyphosphate Across The State"

Farmers Union Insurance - North Dakota

Project Related to Agriculture

2 Winners: Junior Division: A Cash Award of \$25 And a Certificate

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

Alea Steinwand, Ellendale School District , "Trough Troubles"

North Dakota Farm Bureau

Project Related to Agriculture

2 Winners: Senior Division: A Cash Award of \$25, And A Certificate

Abbigale Steeke, Scranton School District , "The Public Perception On Meat Labeling"

Samantha Ellison, Grant School District , "Average Daily Gainz"

North Dakota Farm Bureau

Project Related to Agriculture

2 Winners: Junior Division: A Cash Award of \$25, And A Certificate

Cora Schaunaman, Ashley School District , "Creep Feed of Mixed Ration"

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

Chemistry/Biochemistry

Department of Chemistry

Project in Chemistry

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

Department of Chemistry

Project in Chemistry

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

American Association for Clinical Chemistry

Project in Clinical Chemistry

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

American Chemical Society-Red River Valley Section

Project in Field of Chemistry

1 Winner: Junior or Senior Division: A \$100 Barnes and Noble Gift Card, A Periodic Table Scroll Pen, And a Certificate

Allison Habib, Hankinson School District , "A Chemical Analysis of Various Water Sources"

NDSSEF Association

Project in Biochemistry

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

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

NDSSEF Association

Project in Biochemistry

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

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Earth/Atmospheric Sciences

Department of Atmospheric Sciences

Project in Atmospheric Sciences

1 Winner: Junior or Senior Division: Monetary Award of \$75 and a Certificate

Emma Pierce, Trenton School District , "It's Freezing"

Department of Geography

Project in Geography

1 Winner: Junior Division: Monetary Award of \$75 and a Certificate

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

Department of Geography

Project in Geography

1 Winner: Senior Division: Monetary Award of \$75 and a Certificate

Mikayla Wolfe, Tioga School District , "(H₂O)h My!"

Harold Hamm School of Geology & Geological Engineering

Project in Geology/ Geological Engineering

1 Winner: Junior Division: Monetary Award of \$100 and a Certificate

Brock Sundhagen, Tioga School District , "Hydro Power"

Harold Hamm School of Geology & Geological Engineering

Project in Geology/ Geological Engineering

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Brody LaRoque, Trenton School District , "A Safer Pipeline Design"

North Dakota Geological Society

Project in Field of Geology or Earth Science

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

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

North Dakota Geological Society

Project in Field of Geology or Earth Science

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

Emerson Falk, Hankinson School District , "An Analysis of Microbial Reduction Methods for Lake Water"

American Meteorological Society

Project Related to Meteorology

2 Winners: Junior or Senior Division: A Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

Association For Women Geoscientists

Project Related to Geosciences

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

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

National Oceanic & Atmospheric Administration

Project Related to Improved Understanding of the Earth's Processes

1 Winner: Junior Division: A Certificate And A Medallion

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

NASA Earth System Science Award

Project Related to Earth's Interconnected Systems

1 Winner: Junior or Senior Division: A Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Energy/Power/Electricity

Otter Tail Power Company

Project Related to Energy or Electricity

3 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Alexis Kempf, Ashley School District , "Surviving with Solar"

Grant Schneider, Ashley School District , "Fidgeting for Electricity Part II"

Andrew Mehlhoff, Wing School District , "Steam Turbine Utilization Hydrogen Peroxide"

Otter Tail Power Company

Project Related to Energy or Electricity

2 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Brock Sundhagen, Tioga School District , "Hydro Power"

Gracyn Holzer, Linton School District , "Do Cell Phones Radiate"

Xcel Energy

Project Related to Energy or Electricity

3 Winners: Junior Division: A Cash Award of \$25 And a Certificate

Joseph Richter, Flasher School District , "Cell Phone Radiation"

Alora Kroh & Emma Helbling, Mandan School District , "FR PPE Investigation"

Riley Richter, Linton School District , "Can You Hear Me Now"

Xcel Energy

Project Related to Energy or Electricity

3 Winners: Senior Division: A Cash Award of \$25 And a Certificate

Tanner Kempf, Ashley School District , "Welding: Stick vs. MIG"

Spencer Rudningen, Grenora School District , "Forms of Rocket Fuel"

Madelyn Sauter, Grant School District , "Robotics in Agriculture"

Engineering

Department of Petroleum Engineering

Project in Engineering

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate

Jackson Meidinger, Ashley School District , "Beans vs. Bakken"

College of Engineering and Mines

Project in Engineering

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Jarin Monson, Griggs County Central School District , "Skin Prep Competition"

College of Engineering and Mines

Project in Engineering

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Abigail Post, Hankinson School District , "An Application of Titanium Dioxide Coatings to Reduce Nitrogen Oxides"

College of Engineering and Mines

Project in Engineering (Female Winner)

1 Winner: Senior Division: Monetary Award of \$100 and a \$500 Engineering Scholarship and a Certificate

Alexis Imholte & Sophia McLeish, Mandan School District , "Tendon Repair and Stitch Pattern"

Society of Automotive Engineers

Project in Mobility Engineering

1 Winner: Junior Division: A Cash Award of \$100 And a Certificate

Riley Pederson, Tioga School District , "My Wonderous Rolling Wonder!"

Society of Automotive Engineers

Project in Mobility Engineering

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Abigail Post, Hankinson School District , "An Application of Titanium Dioxide Coatings to Reduce Nitrogen Oxides"

ASM Materials Education Foundation

Project in Materials Engineering

1 Winner: Junior or Senior Division: A Ribbon And a Certificate

Reagan Chambers, Woodhaven Academy , "Feasibility Study of a Three-Dimensional Printed Honeycomb Foundation"

Engineering (Chemical)

Department of Chemical Engineering

Project in Chemical Engineering

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Sophus Hammond, Valley Middle School , "The Art of Photogra-Tree"

Department of Chemical Engineering

Project in Chemical Engineering

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Engineering (Civil)

Department of Civil Engineering

Project in Civil Engineering

1 Winner: Junior Division: Monetary Award of \$25 and a Certificate
Brady Pfaff-Christianson, Litchville-Marion School District , "BRIDGEBREAKER"

Department of Civil Engineering

Project in Civil Engineering

1 Winner: Senior Division: Monetary Award of \$25 and a Certificate
Brody LaRoque, Trenton School District , "A Safer Pipeline Design"

Engineering (Electrical)

Dr. Richard Schultz Award - Department of Electrical Engineering

Project in Electrical Engineering

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate
Gracie Nutt, Tioga School District , "Do You Need a Helping Hand?"

Dr. Richard Schultz Award - Department of Electrical Engineering

Project in Electrical Engineering

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate
Alexis Kempf, Ashley School District , "Surviving with Solar"

Engineering (Mechanical)

Department of Mechanical Engineering

Project in Mechanical Engineering

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate
Layton Woodburty, Flasher School District , "Ice Shovel"

Department of Mechanical Engineering

Project in Mechanical Engineering

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate
Tanner Kempf, Ashley School District , "Welding: Stick vs. MIG"

Environmental Sciences

College of Engineering and Mines

Project in Energy/Environmental Science

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Coalition For Conservation & Environmental Education

Outstanding Environmental Project

1 Winner: Senior Division: A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Coalition For Conservation & Environmental Education

Outstanding Environmental Project

1 Winner: Junior Division: A Cash Award of \$50, A Large Purple Rosette Ribbon, And a Certificate

Grace Mehlhoff, Wing School District , "Power of Erosion"

Ricoh Corporation

Project Related to Environmentally Friendly Businesses

1 Winner: Senior Division: A Certificate

Brody LaRoque, Trenton School District , "A Safer Pipeline Design"

NDSSEF Association

Project Related to Environmental Remediation

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

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"

NDSSEF Association

Project Related to Environmental Remediation

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

Bryan Martinez, Trenton School District , "Effects of Sodium in Nature"

Human Nutrition/Food Science

Hot Cakes Café & Lodging

Project That Has Emphasis on Food Quality or Food Safety

1 Winner: Junior or Senior Division: A Cash Award of \$25, T-Shirt, And a Certificate

Halle Rivinius, Grant School District , "Fats"

NDSSEF Association

Project Related to Human Nutrition or Food Science

2 Winners: Junior Division: A Cash Award of \$25 And a Certificate

Ashtyn Auch, Schroeder Middle School , "Pop Quiz"

Hannah Seefeld, Ellendale School District , "You Call This Living"

NDSSEF Association

Project Related to Human Nutrition or Food Science

2 Winners: Senior Division: A Cash Award of \$25 And a Certificate

Abbigale Steeke, Scranton School District , "The Public Perception On Meat Labeling"

Halle Rivinius, Grant School District , "Fats"

ISEF Alumni

ISEF Alumni

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division: A Cash Award of \$200 And a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

ISEF Alumni

Project as Determined by ISEF Judges

1 Winner: Junior or Senior Division: A Cash Award of \$100 And a Certificate

Alexis Imholte & Sophia McLeish, Mandan School District , "Tendon Repair and Stitch Pattern"

Life Sciences

Department of Biomedical Sciences

Project in Area of Life Sciences (Molecular Biology Emphasis)

2 Winners: Junior Division: Monetary Award of \$50 each and a Certificate

Sophus Hammond, Valley Middle School , "The Art of Photogra-Tree"

Cora Schaunaman, Ashley School District , "Creep Feed of Mixed Ration"

Department of Biomedical Sciences

Project in Area of Life Sciences (Molecular Biology Emphasis)

2 Winners: Senior Division: Monetary Award of \$50 each and a Certificate

Shri Patel, Red River School District , "Epigenetic Targets in Longevity Control in Drosophila melanogaster"

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Department of Biology

Project in Biology

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

Department of Biology

Project in Biology

1 Winner: Senior Division: Monetary Award of \$100 and a \$300 Biology Scholarship and a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Kingsbury Family

Outstanding Life Science Project

1 Winner: Junior or Senior Division: Monetary Award of \$25 and a Plaque

Gracyn Holzer, Linton School District , "Do Cell Phones Radiate"

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Morgan Dutton, Kidder County School District , "Factors Affecting Dewormer Efficiency"

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: A Cash Award of \$75 And a Certificate

Lindsey Vachal, Tioga School District , "Cattle Growth Implants"

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Junior Division: A Cash Award of \$25 And a Certificate

Lily Steeke, Scranton School District , "Livestock Handling Facilities"

Auxiliary to the North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

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

Cora Schaunaman, Ashley School District , "Creep Feed of Mixed Ration"

NDSSEF Association

Project in Botany

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

Gavin Kratcha, Hankinson School District , "The Effects of Micronutrients on Glycine max"

NDSSEF Association

Project in Botany

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

Emma Kratcha, Hankinson School District , "Using Soil Enhancements to Increase Zea mays Profitability in Limited Production Agricultural Areas"

Mathematics/Computer Science

Intel Excellence In Computer Science

Project in Computer Science Category

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

Megan Beyer, Litchville-Marion School District , "KEVAN - Keven Efficient Videogame Playing Artificial Neural Net"

Mu Alpha Theta

Project Involving Modern Mathematics

1 Winner: Senior Division: A Certificate

Alexis Kempf, Ashley School District , "Surviving with Solar"

Department of Computer Science

Project in Computer Science

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Gracie Nutt, Tioga School District , "Do You Need a Helping Hand?"

Department of Computer Science

Project in Computer Science

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate

Blake Bernhardt, Wing School District , "Exposing Vulnerabilities In Websites Through SQL Injection"

Department of Mathematics

Project in Mathematics

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Gracie Nutt, Tioga School District , "Do You Need a Helping Hand?"

Department of Mathematics

Project in Mathematics

1 Winner: Senior Division: Monetary Award of \$100 and a \$500 Mathematics Scholarship and a Certificate

Bryce Goettle, Ashley School District , "Electromagnetic Breaking: Efficiency Relative to Position"

Medicine/Health

ND IDeA Network of Biomedical Research Excellence

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary Award of \$50 and a Certificate

Ellie Brown, Griggs County Central School District , "Time is of the Essence"

ND IDeA Network of Biomedical Research Excellence

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Abigail Post, Hankinson School District , "An Application of Titanium Dioxide Coatings to Reduce Nitrogen Oxides"

School of Medicine & Health Sciences

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

School of Medicine & Health Sciences

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary Award of \$50 and a Certificate

Nicole Schmidt, Ashley School District , "The Effects of ACL Tears"

School of Medicine & Health Sciences

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary Award of \$100 and a Certificate

Joseph Richter, Flasher School District , "Cell Phone Radiation"

Department of Biomedical Sciences

Project in Pharmacology/Immunology

1 Winner: Junior Division: Monetary Award of \$100 and a Certificate

Ashtyn Auch, Schroeder Middle School , "Pop Quiz"

Department of Biomedical Sciences

Project in Pharmacology/Immunology

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

North Dakota Dental Foundation

Project Related to Dentistry

2 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Tayzie Cox, Tioga School District , "Sticky Situations"

Christopher Pfeifle, Ashley School District , "Organic vs. Commercial Mouthwash"

North Dakota Dental Foundation

Project Related to Dentistry

2 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Taytum Kreil, Trenton School District , "Toothy Bacteria"

North Dakota Academy of Family Physicians

Project Related to Medicine

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

Alexis Imholte & Sophia McLeish, Mandan School District , "Tendon Repair and Stitch Pattern"

North Dakota Society for Clinical Laboratory

Project Related to Laboratory Medicine

3 Winners: Senior Division: A Cash Award of \$50 And a Certificate

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Braden Prochnow, Hankinson School District , "Can Spectroscopy Indicate Bacterial Quantities?"

Alexis Imholte & Sophia McLeish, Mandan School District, "Tendon Repair and Stitch Pattern"

North Dakota Society for Clinical Laboratory

Project Related to Laboratory Medicine

3 Winners: Junior Division: A Cash Award of \$50 And a Certificate

Jada Bonogofsky, Flasher School District , "Germs! Germs! Everywhere?"

Ashtyn Auch, Schroeder Middle School , "Pop Quiz"

Kennedy Vagts, Tioga School District , "Animals pH"

North Dakota Pharmacists Association

Project in Field of Pharmacology

1 Winner: Junior Division: A Cash Award of \$75 And a Certificate

Ashtyn Auch, Schroeder Middle School , "Pop Quiz"

North Dakota Pharmacists Association

Project in Field of Pharmacology

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Kasandra Hulm, Strasburg School District , "Antibiotics Vs. Essential Oils"

Microbiology

Department of Biomedical Sciences

Project in Microbiology/Infectious Disease

2 Winners: Junior Division: Monetary Award of \$50 each and a Certificate

Alea Steinwand, Ellendale School District , "Trough Troubles"

Christopher Pfeifle, Ashley School District , "Organic vs. Commercial Mouthwash"

Department of Biomedical Sciences

Project in Microbiology/Infectious Disease

2 Winners: Senior Division: Monetary Award of \$100 and a Certificate

Kaity Hove, Trenton School District , "Bacteria Destroyers"

Isabelle Chambers, Woodhaven Academy , "A New Method to Study Human Microbiome "

Department of Biomedical Sciences

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary Award of \$100 and a Certificate

Rylee Stearns, Trenton School District , "Are Hospitals Clean?"

Department of Biomedical Sciences

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary Award of \$100 and a Certificate

McKayla DeWitz, Kidder County School District , "Don't Put Your Money Where Your Mouth Is!"

Military

Navy

Project (All Categories Considered)

3 Winners: Senior Division: An Educational Recognition Award Valued at \$75, A Medallion, And a Certificate

Alyssa Kemp, Cavalier School District , "Saving our Seas - A Solid Solution to Reducing Carbon Dioxide and Ocean Acidification "

Andrew Mehlhoff, Wing School District , "Steam Turbine Utilization Hydrogen Peroxide"

Madison Wilson, Scranton School District , "Diesel Winterization"

Navy

Project (All Categories Considered)

3 Winners: Junior Division: A Medallion And a Certificate

Rylee Stearns, Trenton School District , "Are Hospitals Clean?"

Carlee Fuchs, Flasher School District , "Up in Flames"

Joseph Richter, Flasher School District , "Cell Phone Radiation"

Air Force

Project That Has Applications Useful to Air Force

4 Winners: Junior or Senior Division: An Over-the-Shoulder Sling Pack, Power Bank Charger, Dog Tag USB Flash Drive, A Dual USB Car Charger, And a Certificate

Tymer Boldt, Flasher School District , "Driving On Air"

Spencer Rudningen, Grenora School District , "Forms of Rocket Fuel"

Megan Beyer, Litchville-Marion School District , "KEVAN - Keven Efficient Videogame Playing Artificial Neural Net"

Gracyn Holzer, Linton School District , "Do Cell Phones Radiate"

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Junior Division Runner-Up: A Duffle Bag With Assortment of Items

Piper Suhr, Griggs County Central School District , "The Effect of Caffeine on the Mind and Body"

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Junior Division: A Backpack With Assortment of Items

Alora Kroh & Emma Helbling, Mandan School District , "FR PPE Investigation"

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Senior Division: A Duffle Bag With Assortment of Items

Cameron Taylor, Tioga School District , "Password Security"

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Senior Division Runner-Up: A Backpack With Assortment of Items

Bailee Pierce, Scranton School District , "How Casein Affects You"

Physics/Astronomy

Department of Physics & Astrophysics

Project in Physics & Astronomy

1 Winner: Junior Division: Monetary Award of \$100 and a Certificate

Preston Diedrich, Schroeder Middle School , "Dist-Sense"

Department of Physics & Astrophysics

Project in Physics & Astronomy

1 Winner: Senior Division: Monetary Award of \$100 and a \$500 Physics Scholarship and a Certificate

Andrew Mehlhoff, Wing School District , "Steam Turbine Utilization Hydrogen Peroxide"

North Dakota Physics Teachers

Project in Area of Physics or Physical Science

1 Winner: Senior Division: A Cash Award of \$20, T-Shirt, And a Certificate

Bryce Goettle, Ashley School District , "Electromagnetic Breaking: Efficiency Relative to Position"

North Dakota Physics Teachers

Project in Area of Physics or Physical Science

1 Winner: Junior Division: A Cash Award of \$20, T-Shirt, And a Certificate

Zachary St. Aubin, Ashley School District , "This is Tense"

United States Metric Association

Project Using Metric System for Measurements

5 Winners: Junior Division: A Certificate

Brooklyn Bergemann, Lisbon School District , "Call? Or Text?"

Zachary St. Aubin, Ashley School District , "This is Tense"

Joseph Richter, Flasher School District , "Cell Phone Radiation"

Braden Schlatter, Glen Ullin School District , "You Nailed It"

Preston Diedrich, Schroeder Middle School , "Dist-Sense"

Social/Behavioral Sciences

Department of Psychology

Project in Psychology or Behavioral Science

2 Winners: Junior Division: Monetary Award of \$100 and a Certificate

Asia Bercherl, Griggs County Central School District , "Eyewitness Accuracy"

Ellie Brown, Griggs County Central School District , "Time is of the Essence"

Department of Psychology

Project in Psychology or Behavioral Science

2 Winners: Senior Division: Monetary Award of \$100 and a Certificate

Lydia Carr, Tioga School District , "What's Up With All Of These Negative Political Ads?"

Kebba Beach, Ashley School District , "Dream On"

Virginia George Inheritance Fund

Project in Social or Behavioral Science

1 Winner: Senior Division: Monetary Award of \$125 and a Certificate

Abbigale Steeke, Scranton School District , "The Public Perception On Meat Labeling"

Virginia George Inheritance Fund

Project in Social or Behavioral Science

1 Winner: Junior Division: Monetary Award of \$75 and a Certificate

Piper Suhr, Griggs County Central School District , "The Effect of Caffeine on the Mind and Body"

American Psychological Association

Project Related to Psychology

1 Winner: Junior or Senior Division: A Certificate

Elizabeth Sherbrooke, Hankinson School District , "The Effect of Distraction Methods on Focusing to Complete a Task"

Sweepstakes

Yale Science And Engineering Association

Project in Areas of Computer Science

1 Winner: Senior Division: A Medallion And A Certificate

Brody LaRoque, Trenton School District , "A Safer Pipeline Design"

Water Quality

American Water Works Association

Project Related to Drinking Water Quality

1 Winner: Junior Division: A Cash Award of \$75 And a Certificate

Alea Steinwand, Ellendale School District , "Trough Troubles"

American Water Works Association

Project Related to Drinking Water Quality

1 Winner: Senior Division: A Cash Award of \$75 And a Certificate

Mikayla Wolfe, Tioga School District , "(H2O)h My!"

North Dakota Water Environment Association

Project Related to Water Quality

1 Winner: Senior Division: A Cash Award of \$75 And a Plaque

Emerson Falk, Hankinson School District , "An Analysis of Microbial Reduction Methods for Lake Water"

North Dakota Water Environment Association

Project Related to Water Quality

1 Winner: Junior Division: A Cash Award of \$75 And a Plaque

Kathryn Schneider, Ashley School District , "Bye-Bye, Blue-Green Algae"

North Dakota Rural Water Systems Association

Project Related to Water Quality

1 Winner: Senior Division: A Cash Award of \$100 And a Certificate

Allison Habib, Hankinson School District , "A Chemical Analysis of Various Water Sources"

Water Environment Federation

Project Related to Water Quality or Water Conditions

1 Winner: Junior or Senior Division: A Certificate

Kaylee Kemp, Cavalier School District , "Say it Ain't Snow - Investigating Acid Deposition"