

2023 FINAL AWARDS

Senior Division Sweepstakes Winners

The first place (Marcus J. Friskop Sweepstakes) winner received a gold state plaque, a jacket, a \$200 cash award from the Marcus J. Friskop Family, a \$500 cash award from the University of North Dakota College of Engineering & Mines, and a 1 Year \$2500 Scholarship to the University of North Dakota and will advance to the ISEF in Dallas Texas and will exhibit his/her project.

The second place (sweepstakes runner-up) winner received a gold state plaque, a jacket, a \$250 cash award from the University of North Division College of Arts & Sciences, and a 1 Year \$2000 Scholarship to the University of North Dakota and will advance to the ISEF in Dallas Texas 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 School of Medicine & Health Sciences, and a 1 Year \$1000 Scholarship to the University of North Dakota and will advance to the ISEF in Dallas Texas and will exhibit his/her project.

Senior Division – 1st Place – Sweepstakes Winner

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

Senior Division – 2nd Place – Sweepstakes Runner-Up

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

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

Karlee Hoyt, Trenton School District, "Water Daphnia vs. Marine Pollutants"

North Dakota State Science and Engineering Fair

Senior Division Place Winners

Projects that are selected as finalists received a gold plaque and a jacket and will advance to the ISEF in Dallas Texas in May and will exhibit their project.

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

Northwest Region

1st Finalist: Gracie Nutt, Tioga School District, "Paramount Power Plow"

2nd Finalist; Madison Mock, Trenton School District, "Brand Vs. Natural"

3rd Finalist: Brooke Vachal, Tioga School District, "Cattle Weaning"

1st Alternate: Jerrad Tyler Hiatt, Tioga School District, "What Types Of Wood Burn Hotter"

2nd Alternate: Billee Sunhagen, Tioga School District, "The Colors Of Optical Illusions"

3rd Alternate: Cheryl Hayes, Tioga School District, "Hand Sanitizer Effectiveness"

North Dakota State Science and Engineering Fair

Northeast Region

1st Finalist: Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

1st Alternate: Sudiksha Singhal, Red River High School, "A Study of the Thermal Properties of Tissue and Fecal Matter to Investigate Potential Biomedical Applications of Thermography with a Focus on IBD"

2nd Alternate: Elizabeth Fedje, Brooke Gullickson, Valley/Edinburg School District, "The Path to Preventing Blue-Green Algae Growth in North Dakota Watersheds"

3rd Alternate: Halle Kohlmeier, Jacie Reardon, Adrianna Tande, Central High School, "This is So Lit!"

Southwest Central Region

1st Finalist: James Gessey, Flasher School District, "Is It Worse Than Nicotine"

2nd Finalist: Summer Fleck, Flasher School District, "Conception Rate in Cattle As Affected By Grade Of Transplanted In Vitro Fertilization Embryos"

1st Alternate: Victoria Richter, Flasher School District, "Think Ink"

2nd Alternate: Grant Hauge, Flasher School District, "An Analysis Of Nitrates In Sorghum, Based On Moisture And Timing"

3rd Alternate: Dani Maychrzak, Scranton School District, "Testing Different Types Of Cattle Bedding To Determine Which Has The Least Amount Of Bacterial Growth"

North Dakota State Science and Engineering Fair

Southeast Region

1st Finalist: Kenadi David, Hankinson School District, "Brush Up!"

2nd Finalist: Kardelen Hanson, Hankinson School District, "Examining the Effects of Media-Related Confirmation Bias on Adults "

3rd Finalist: Patrick Shen, Davies High School, "Do Single-Cell Hi-C Data Follow a Power-law Decay?" 1st Alternate: Elise Elliot, Hankinson School District, "Analysis of Topsoil Erosion Prevention"

2nd Alternate: Brayden Sutherland, Lisbon School District, "A Study on the Relationship Between Retention and Work Ethic"

3rd Alternate: Lillian Mittleider, Kidder County School District, "The Effects of Distracted Driving"

Junior Division Sweepstakes Winners

The first place (Sweepstakes) winner received a gold state plaque, a \$150 cash award from the ND IDeA Network of Biomedical Research Excellence.

The second place (Sweepstakes Runner-Up) winner received a silver plaque and a \$100 cash award from the ND IDeA Network of Biomedical Research Excellence.

Junior Division 1st Place – Sweepstakes Winner

Layton Pribula, Blake Solberg, Schroeder Middle School, "Riding the Waves"

Junior Division 2nd Place – Sweepstakes Runner-Up

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

North Dakota State Science and Engineering Fair

Junior Division Place Winners

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

Northwest Region

1st Place: Landon Gaudreau, ASB School District, "Can Foil Reflect Indirect Heat"

2nd Place: Kiya Sparks, Tioga School District, "Environmental Influences On Worms & Compost" 3rd Place: Macie Fugate, East Fairview School District, "Getting Started"

4th Place: Jake Schlothauer, East Fairview School District, "Sud Studies"

5th Place: Ty Poulsen, East Fairview School District, "Wasteful Wipes"

Northeast Region

1st Place: Amaa Wijetunga, South Middle School, "FilteriCoffee Grounds For Construction"

2nd Place: Ella Lizakowski, Schroeder Middle School, "Green Grass"

3rd Place: Wyatt Larson, Schroeder Middle School, "Beat the Heat"

4th Place: Sean Oncel, Schroeder Middle School, "Power of Colors"

5th Place: Micah Jorgenson, Schroeder Middle School, "Flight Plan"

North Dakota State Science and Engineering Fair

Southwest Central Region

1st Place: Brooklyn Hepper, Flasher School District, "Deflection In Various Bridge Types"

2nd Place: Jocelyn Zingg, Flasher School District, "Beneficial Biogas"

3rd Place: Ava Hauck, Dickinson School District, "Got Shades?"

4th Place: Cassy Hartman, Flasher School District, "Effect Of Starter Fertilization On North Dakota Crops"

5th Place: Madalyn Bohl, Flasher School District, "Effect Of Acid Rain On Seed Germination"

Southeast Region

1st Place: Keegan Isakson, Kidder County School District, "The Danger of Distracted Driving" 2nd Place: Skylar Johnson, Lisbon School District, "How Safe Is Your Livestocks' Water?"

3rd Place: Alex Jean, Hankinson School District, "Does What You Do Effect Your Hand Strength?" 4th Place: Avery Schoonover, Kidder County School District, "Introvert Vs. Extrovert Who Has the Better Memory"

5th Place: Amla Prochnow, Hankinson School District, "The Application of Citrus Extract as an Antimicrobial Alternative"

North Dakota State Science and Engineering Fair

Agriculture/Soil Science

Farmers Union Insurance - North Dakota

Project Related to Agriculture

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

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

Summer Fleck, Flasher School District, "Conception Rate in Cattle As Affected By Grade Of Transplanted In Vitro Fertilization Embryos"

Farmers Union Insurance - North Dakota

Project Related to Agriculture

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

Jocelyn Zingg, Flasher School District, "Beneficial Biogas"

Macie Fugate, East Fairview School District, "Getting Started"

North Dakota Farm Bureau

Project Related to Agriculture

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

Grant Hauge, Flasher School District, "An Analysis Of Nitrates In Sorghum, Based On Moisture And Timing"

Brooke Vachal, Tioga School District, "Cattle Weaning"

North Dakota State Science and Engineering Fair

North Dakota Farm Bureau

Project Related to Agriculture

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

Kiya Sparks, Tioga School District, "Environmental Influences On Worms & Compost"

Abigail Ferguson, Tioga School District, "The Power Of Grazing"

Chemistry/Biochemistry

Department of Chemistry

Project in Chemistry

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

Nevaeh Barten, Williston JH School District, "Mooving From Milk To Plastic.... Udderly Amazing"

Department of Chemistry

Project in Chemistry

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

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

American Chemical Society-Red River Valley Section

Project in Field of Chemistry

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

Brenna Eckroth, Flasher School District, "An Analysis Of Toothpaste Efficacy Using Potable Solution Part II"

North Dakota State Science and Engineering Fair

American Chemical Society-Red River Valley Section

Project in Field of Chemistry

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

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

NDSSEF Association

Project in Biochemistry

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

Amla Prochnow, Hankinson School District, "The Application of Citrus Extract as an Antimicrobial Alternative"

NDSSEF Association

Project in Biochemistry

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

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

Earth/Atmospheric Sciences

Department of Atmospheric Sciences

Project in Atmospheric Sciences

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

Ava Hauck, Dickinson School District, "Got Shades?"

North Dakota State Science and Engineering Fair

Department of Geography

Project in Geography

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

Ava Hauck, Dickinson School District, "Got Shades?"

Department of Geography

Project in Geography

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

Elise Elliot, Hankinson School District, "Analysis of Topsoil Erosion Prevention"

Harold Hamm School of Geology & Geological Engineering

Project in Geology/Geological Engineering

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

Madalyn Bohl, Flasher School District, "Effect Of Acid Rain On Seed Germination"

Harold Hamm School of Geology & Geological Engineering

Project in Geology/Geological Engineering

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

Josie Fernholz, Trenton School District, "Agriculture On Earth vs The Moon"

North Dakota Geological Society

Project in Field of Geology or Earth Science

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

Madalyn Bohl, Flasher School District, "Effect Of Acid Rain On Seed Germination"

North Dakota State Science and Engineering Fair

North Dakota Geological Society

Project in Field of Geology or Earth Science

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

Elise Elliot, Hankinson School District, "Analysis of Topsoil Erosion Prevention"

National Weather Service

Project Related to Meteorology

1 Winner: Junior Division: Certificate

Malory Garcia, Tioga School District, "Solar Eclipse"

National Weather Service

Project Related to Meteorology

1 Winner: Senior Division: Certificate

Grant Hauge, Flasher School District, "An Analysis Of Nitrates In Sorghum, Based On Moisture And Timing"

Association For Women Geoscientists

Project Related to Geosciences

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

Elise Elliot, Hankinson School District, "Analysis of Topsoil Erosion Prevention"

North Dakota State Science and Engineering Fair

National Oceanic & Atmospheric Administration

Project Related to Improved Understanding of the Earth's Processes

1 Winner: Junior Division: Certificate And a Medallion

Madalyn Bohl, Flasher School District, "Effect Of Acid Rain On Seed Germination"

NASA Earth System Science Award

Project Related to Earth's Interconnected Systems

1 Winner: Junior or Senior Division: Certificate

Chaskee Schmidt, Flasher School District, "An Analysis Of Water Source Quality As Affected By Bacteria Introduced Through Carcass Decomposition"

National Geographic Society

Project Related to Issues of Oceans, Lands, Wildlife, Human History & Cultures, and Human Ingenuity 1 Winner: Senior Division: Monetary Award of \$100 And a Certificate

Grant Hauge, Flasher School District, "An Analysis Of Nitrates In Sorghum, Based On Moisture And Timing"

Energy/Power/Electricity

Otter Tail Power Company

Project Related to Energy or Electricity

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

Xzander Schwartz, Trenton School District, "Magnetic Suspension"

Hayden Fischer, Flasher School District, "How Much Weight Does It Take To Drop A Maglev Train?" Cody Bahm, Flasher School District, "Bullet Destruction"

North Dakota State Science and Engineering Fair

Otter Tail Power Company

Project Related to Energy or Electricity

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

Jocelyn Zingg, Flasher School District, "Beneficial Biogas"

Alexander Evans, Scranton School District, "Comparing The Cost Efficiency Of Incandescent And LED Lightbulbs"

Xcel Energy

Project Related to Energy or Electricity

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

Ava Frolek , Lidgerwood School District, "Oxygen Overload "

Micah Jorgenson, Schroeder Middle School, "Flight Plan"

Ava Hauck, Dickinson School District, "Got Shades?"

Xcel Energy

Project Related to Energy or Electricity

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

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

Jerrad Tyler Hiatt, Tioga School District, "What Types Of Wood Burn Hotter"

Patrick Shen, Davies High School, "Do Single-Cell Hi-C Data Follow a Power-law Decay?"

North Dakota State Science and Engineering Fair

Enerplus

Project Related to Energy

2 Winners: Junior Division: Monetary Award of \$250 And a Certificate

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

Layton Pribula, Blake Solberg, Schroeder Middle School, "Riding the Waves"

Enerplus

Project Related to Energy

2 Winners: Senior Division: Monetary Award of \$250 And a Certificate

Gracie Nutt, Tioga School District, "Paramount Power Plow"

Riley Pederson, Tioga School District, "The Swamp Monster"

Engineering

Department of Petroleum Engineering

Project in Engineering

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

Gracie Nutt, Tioga School District, "Paramount Power Plow"

College of Engineering and Mines

Project in Engineering

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

Landon Gaudreau, ASB School District, "Can Foil Reflect Indirect Heat"

North Dakota State Science and Engineering Fair

College of Engineering and Mines

Project in Engineering

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

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

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

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

Biomedical Engineering Program

Project in Biomedical Engineering

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

Layton Pribula, Blake Solberg, Schroeder Middle School, "Riding the Waves"

Biomedical Engineering Program

Project in Biomedical Engineering

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

Lyla Gillespie, Lisbon School District, "Which Sunscreen is Most Effective"

Society of Automotive Engineers

Project in Mobility Engineering

North Dakota State Science and Engineering Fair

1 Winner: Junior Division: Monetary Award of \$125 And a Certificate

Micah Jorgenson, Schroeder Middle School, "Flight Plan"

Society of Automotive Engineers

Project in Mobility Engineering

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

Hayden Fischer, Flasher School District, "How Much Weight Does It Take To Drop A Maglev Train?"

NPS Metals a Division of Owen Industries

Project Related to Manufacturing

1 Winner: Senior Division: Monetary Award of \$300 And a Certificate

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

NPS Metals a Division of Owen Industries

Project Related to Manufacturing

1 Winner: Junior Division: Monetary Award of \$200 And a Certificate

Landon Gaudreau, ASB School District, "Can Foil Reflect Indirect Heat"

North Dakota State Science and Engineering Fair

Engineering (Chemical)

Department of Chemical Engineering

Project in Chemical Engineering

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

Marlene Perez, ASB School District, "Oil Spill Prototype C.A.B.S."

Department of Chemical Engineering

Project in Chemical Engineering

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

Lyla Gillespie, Lisbon School District, "Which Sunscreen is Most Effective"

Engineering (Civil)

Department of Civil Engineering

Project in Civil Engineering

1 Winner: Junior Division: Monetary Award of \$25 and a Certificate

Brooklyn Hepper, Flasher School District, "Deflection In Various Bridge Types"

Department of Civil Engineering

Project in Civil Engineering

1 Winner: Senior Division: Monetary Award of \$25 and a Certificate

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

North Dakota State Science and Engineering Fair

Engineering (Electrical)

Dr. Richard Schultz Award - Department of Electrical Engineering

Project in Electrical Engineering

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

Evelyn Chambers, Woodhaven Academy, "Generative AI: Can It Fool the Human Senses?"

Dr. Richard Schultz Award - Department of Electrical Engineering

Project in Electrical Engineering

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

Gracie Nutt, Tioga School District, "Paramount Power Plow"

Engineering (Mechanical)

Department of Mechanical Engineering

Project in Mechanical Engineering

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

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

Department of Mechanical Engineering

Project in Mechanical Engineering

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

Xzander Schwartz, Trenton School District, "Magnetic Suspension"

North Dakota State Science and Engineering Fair

Environmental Sciences

College of Engineering and Mines

Project in Energy/Environmental Science

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

Elise Elliot, Hankinson School District, "Analysis of Topsoil Erosion Prevention"

Ricoh Corporation

Project Related to Environmentally Friendly Businesses

1 Winner: Senior Division: Certificate

Gracie Nutt, Tioga School District, "Paramount Power Plow"

NDSSEF Association

Project Related to Environmental Remediation

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

Amla Prochnow, Hankinson School District, "The Application of Citrus Extract as an Antimicrobial Alternative"

NDSSEF Association

Project Related to Environmental Remediation

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

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

North Dakota State Science and Engineering Fair

Human Nutrition/Food Science

Hot Cakes Café & Lodging

Project That Has Emphasis on Food Quality or Food Safety

1 Winner: Junior Division: Monetary Award of \$25, T-Shirt, And a Certificate

Ty Poulsen, East Fairview School District, "Wasteful Wipes"

Hot Cakes Café & Lodging

Project That Has Emphasis on Food Quality or Food Safety

1 Winner: Senior Division: Monetary Award of \$25, T-Shirt, And a Certificate

Emma Taylor, Tioga School District, "Are Food Handler Gloves Really Beneficial?"

NDSSEF Association

Project Related to Human Nutrition or Food Science

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

Layla Krinke, Scranton School District, "The Public Knowledge Of Egg Labeling"

Taelyn Boldt, Flasher School District, "Toxicity In Energy Drinks"

NDSSEF Association

Project Related to Human Nutrition or Food Science

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

Denver Nelson, Hankinson School District, "Storing Your Fruit the Right Way"

Hailey Qual, Lisbon School District, "A Comparison of Bacterial Colonization on Animal Based Proteins versus Plant Based Proteins"

North Dakota State Science and Engineering Fair

ISEF Alumni

ISEF Alumni

Project as Determined by ISEF Judges

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

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

ISEF Alumni

Project as Determined by ISEF Judges

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

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

Life Sciences (animal & plant)

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

Chloe Maychrzak, Scranton School District, "Smelling The Difference Between Real & Artificial Smells"

Austin Ulrich, Schroeder Middle School, "Smelly Beans"

North Dakota State Science and Engineering Fair

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

Sudiksha Singhal, Red River High School, "A Study of the Thermal Properties of Tissue and Fecal Matter to Investigate Potential Biomedical Applications of Thermography with a Focus on IBD"

James Gessey, Flasher School District, "Is It Worse Than Nicotine"

Department of Biology

Project in Biology

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

Romana Eaton, Scranton School District, "Family Resemprints"

Department of Biology

Project in Biology

1 Winner: Senior Division: Monetary Award of \$100 And a \$500 Biology Scholarship And a Certificate Patrick Shen, Davies High School, "Do Single-Cell Hi-C Data Follow a Power-law Decay?"

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: Monetary Award of \$300 And a Certificate

Brooke Vachal, Tioga School District, "Cattle Weaning"

North Dakota State Science and Engineering Fair

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

1 Winner: Senior Division: Monetary Award of \$225 And a Certificate

Grant Hauge, Flasher School District, "An Analysis Of Nitrates In Sorghum, Based On Moisture And Timing"

North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

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

Skylar Johnson, Lisbon School District, "How Safe Is Your Livestocks' Water?"

Auxiliary to the North Dakota Veterinary Medical Association

Project Related to Veterinary Medicine

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

Layla Krinke, Scranton School District, "The Public Knowledge Of Egg Labeling"

Society for In Vitro Biology

Project in the Area of Tissue Culture

1 Winner: 11th Grader Division: Certificate

Patrick Shen, Davies High School, "Do Single-Cell Hi-C Data Follow a Power-law Decay?"

North Dakota State Science and Engineering Fair

NDSSEF Association

Project in Botany

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

Haylee Mauch, Hankinson School District, "To Fertilize or Not to Fertilize...Which Kind is the Question"

NDSSEF Association

Project in Botany

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

Josie Fernholz, Trenton School District, "Agriculture On Earth vs The Moon"

Mathematics/Computer Science

Mu Alpha Theta

Project Involving Modern Mathematics

1 Winner: Senior Division: Certificate

Riley Pederson, Tioga School District, "The Swamp Monster"

North Dakota Guaranty & Title Co.

Project Related to Computer Science (Emphasis in Artificial Intelligence)

1 Winner: Junior Division: Monetary Award of \$250 And a Certificate

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

North Dakota State Science and Engineering Fair

Department of Mathematics

Project in Mathematics

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

Layton Pribula, Blake Solberg, Schroeder Middle School, "Riding the Waves"

Department of Mathematics

Project in Mathematics

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

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

School of Electrical Engineering & Computer Science

Project in Computer Science

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

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

School of Electrical Engineering & Computer Science

Project in Computer Science

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

Gracie Nutt, Tioga School District, "Paramount Power Plow"

North Dakota State Science and Engineering Fair

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

Milla Fagerholt, Gianna Hall, Valley/Edinburg Middle School, "Hidden Hazards"

ND IDeA Network of Biomedical Research Excellence

Project in Medical or Health Sciences

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

Daci Wells, Flasher School District, "Welding UV Radiation In Accordance With The Law Of Reflection"

School of Medicine & Health Sciences

Project in Medical or Health Sciences

1 Winner: Senior Division: Monetary Award of \$300 And a Certificate

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

School of Medicine & Health Sciences

Project in Medical or Health Sciences

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

Sophia Hertz, Flasher School District, "Sanitation Rate Of UVC Light On CPAP Apparatus"

North Dakota State Science and Engineering Fair

School of Medicine & Health Sciences

Project in Medical or Health Sciences

1 Winner: Junior Division: Monetary Award of \$300 And a Certificate

Amla Prochnow, Hankinson School District, "The Application of Citrus Extract as an Antimicrobial Alternative"

Department of Biomedical Sciences

Project in Pharmacology/Immunology

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

Taelyn Boldt, Flasher School District, "Toxicity In Energy Drinks"

Department of Biomedical Sciences

Project in Pharmacology/Immunology

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

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

North Dakota Dental Foundation

Project Related to Dentistry

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

Brenna Eckroth, Flasher School District, "An Analysis Of Toothpaste Efficacy Using Potable Solution Part II"

North Dakota State Science and Engineering Fair

North Dakota Dental Foundation

Project Related to Dentistry

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

Kenadi Houle, Trenton School District, "Lets Talk Germs"

Olivia Koehler, Hankinson School District, "Does Chewing Gum Impact the Bacteria In Your Mouth?"

North Dakota Academy of Family Physicians

Project Related to Medicine

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

Mykenzie Winkler, Grant County School District, "Stressed Out?"

American Society for Clinical Laboratory Science - North Dakota

Project Related to Laboratory Medicine

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

Taylor Zenker, Flasher School District, "Synthetic vs. Natural"

James Gessey, Flasher School District, "Is It Worse Than Nicotine"

Kaitlyn Hauge, Flasher School District, "Mask Efficacy"

North Dakota State Science and Engineering Fair

American Society for Clinical Laboratory Science - North Dakota

Project Related to Laboratory Medicine

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

Carrie LaDuke, Flasher School District, "The Effect Of Disinfectant Wipes On Bacteria"

Jake Schlothauer, East Fairview School District, "Sud Studies"

Gracie Melberg, Tioga School District, "Dandelions & Their Health Benefits"

North Dakota Pharmacists Association

Project in Field of Pharmacology

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

Wyatt Larson, Schroeder Middle School, "Beat the Heat"

North Dakota Pharmacists Association

Project in Field of Pharmacology

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

James Gessey, Flasher School District, "Is It Worse Than Nicotine?"

Microbiology

Department of Biomedical Sciences

Project in Microbiology/Infectious Disease

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

Taelyn Boldt, Flasher School District, "Toxicity In Energy Drinks"

Skyilar Johnson, Lisbon School District, "How Safe Is Your Livestocks' Water?"

North Dakota State Science and Engineering Fair

Department of Biomedical Sciences

Project in Microbiology/Infectious Disease

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

Karlee Hoyt, Trenton School District, "Water Daphnia Vs. Marine Pollutants"

Denver Nelson, Hankinson School District, "Storing Your Fruit the Right Way"

Department of Biomedical Sciences

Project in Medical or Health Sciences

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

Amla Prochnow, Hankinson School District, "The Application of Citrus Extract as an Antimicrobial Alternative"

Department of Biomedical Sciences

Project in Medical or Health Sciences

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

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

North Dakota State Science and Engineering Fair

Military/Navy

Navy

Project (All Categories Considered)

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

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

Josie Fernholz, Trenton School District, "Agriculture On Earth vs The Moon"

Navy

Project (All Categories Considered)

2 Winners: Junior Division: Medallion And a Certificate

Marlene Perez, ASB School District, "Oil Spill Prototype C.A.B.S."

Che Yu, South Middle School, "Self-driving car made from Raspberry Pi with 360 degrees Lidar sensing"

Military/North Dakota Army National Guard

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

1 Winner: Junior Division: Backpack With Assortment of Items

Milla Fagerholt, Gianna Hall, Valley/Edinburg Middle School, "Hidden Hazards"

North Dakota State Science and Engineering Fair

North Dakota Army National Guard

Project That Has Applications Useful to North Dakota Army National Guard

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

Cody Bahm, Flasher School District, "Bullet Destruction"

Military/United States Air Force

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

Micah Jorgenson, Schroeder Middle School, "Flight Plan"

Evelyn Chambers, Woodhaven Academy, "Generative AI: Can It Fool the Human Senses?"

Gracie Nutt, Tioga School District, "Paramount Power Plow"

Xzander Schwartz, Trenton School District, "Magnetic Suspension"

Physics/Astronomy

Department of Physics & Astrophysics

Project in Physics & Astronomy

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

Amaa Wijetunga, South Middle School, "FilteriCoffee Grounds For Construction"

Aerin Salgado, Kenai Auch, Schroeder Middle School, "It's Electric!"

North Dakota State Science and Engineering Fair

Department of Physics & Astrophysics

Project in Physics & Astronomy

1 Winner: Senior Division: Monetary Award of \$100 And a \$500 Physics Scholarship
And a Certificate Hayden Fischer, Flasher School District, "How Much Weight Does It
Take To Drop A Maglev Train?"

United States Metric Association

Project Using Metric System for Measurements

5 Winners: Junior Division: Certificate

Milla Fagerholt, Gianna Hall, Valley/Edinburg Middle School, "Hidden Hazards"

Harrison Mathre, Schroeder Middle School, "Frozone"

Aerin Salgado, Kenai Auch, Schroeder Middle School, "It's Electric!"

Ava Hauck, Dickinson School District, "Got Shades?"

Layton Pribula, Blake Solberg, Schroeder Middle School, "Riding the Waves"

Social/Behavioral Sciences

Department of Psychology

Project in Psychology or Behavioral Science

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

Layla Krinke, Scranton School District, "The Public Knowledge Of Egg Labeling"

Evelyn Chambers, Woodhaven Academy, "Generative AI: Can It Fool the Human
Senses?"

North Dakota State Science and Engineering Fair

Department of Psychology

Project in Psychology or Behavioral Science

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

James Gessey, Flasher School District, "Is It Worse Than Nicotine"

Karady Evans, Scranton School District, "Difference Between Teaching Different Types Of Kinesthetic Lessons To Elementary Aged Students, While Teaching Ag In The Classroom"

Virginia George Inheritance Fund

Project in Social or Behavioral Science

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

Kardelen Hanson, Hankinson School District, "Examining the Effects of Media-Related Confirmation Bias on Adults"

Virginia George Inheritance Fund

Project in Social or Behavioral Science

1 Winner: Junior Division: Monetary Award of \$25 and a Certificate

Layla Krinke, Scranton School District, "The Public Knowledge Of Egg Labeling"

American Psychological Association

Project Related to Psychology

1 Winner: Junior or Senior Division: Certificate

Evelyn Chambers, Woodhaven Academy, "Generative AI: Can It Fool the Human Senses?"

North Dakota State Science and Engineering Fair

Sweepstakes

Yale Science and Engineering Association

Project in Areas of Computer Science

1 Winner: Senior Division: Medallion and a Certificate

Gavin Kratcha, Hankinson School District, "Sustainable Hydroponic Production Using Automated Agricultural Nutrient Reclamation"

Regeneron Biomedical Science Award

Project Related to Biomedical Science and Research

1 Winner: Senior Division: Monetary Award of \$375 And a Certificate

Jada Bonogofsky, Flasher School District, "Antimicrobial Resistance Of A Biofilm-Forming Pathogen Probed With Antipyretic Pharmaceuticals And Antibiotics"

Water Quality

American Water Works Association

Project Related to Drinking Water Quality

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

Skylar Johnson, Lisbon School District, "How Safe Is Your Livestocks' Water?"

American Water Works Association

Project Related to Drinking Water Quality

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

Cora Oster, Lisbon School District, "Does Water Temperature Affect Bacteria Colonization"

North Dakota State Science and Engineering Fair

North Dakota Water Environment Association

Project Related to Water Quality

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

Malory Kemp, Cavalier School District, "Sustainable Solutions - Comparing Electrochemical vs Traditional Methods of Wastewater Remediation"

North Dakota Water Environment Association

Project Related to Water Quality

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

Madalyn Bohl, Flasher School District, "Effect Of Acid Rain On Seed Germination"

North Dakota Rural Water Systems Association

Project Related to Water Quality

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

Karlee Hoyt, Trenton School District, "Water Daphnia Vs. Marine Pollutants"

Water Environment Federation

Project Related to Water Quality or Water Conditions

1 Winner: Junior or Senior Division: Certificate

Chaskee Schmidt, Flasher School District, "An Analysis Of Water Source Quality As Affected By Bacteria Introduced Through Carcass Decomposition"