



MSSF 80
YEARS

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80 YEARS
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MAINE STATE SCIENCE FAIR



SATURDAY
3/28/2026
@
ORONO H.S.

AWARDS

GRAND AWARDS

The top three projects at the Maine State Science Fair will be awarded with \$250 prizes.

CATEGORY AWARDS

We will recognize the top three projects in each of the following competition categories:

Animal Sciences	Biological & Biomedical Sciences 2	Environmental Sciences 1
Behavioral & Social Sciences 1	Chemistry & Materials	Environmental Sciences 2
Behavioral & Social Sciences 2	Computer Science & Mathematics	Microbiology
Behavioral & Social Sciences 3	Engineering 1	Plant Sciences
Biological & Biomedical Sciences 1	Engineering 2	

SCHOLARSHIPS

The following colleges and universities will award nearly \$1 million in scholarships to 11th and 12th grade participants:



SPECIAL AWARDS

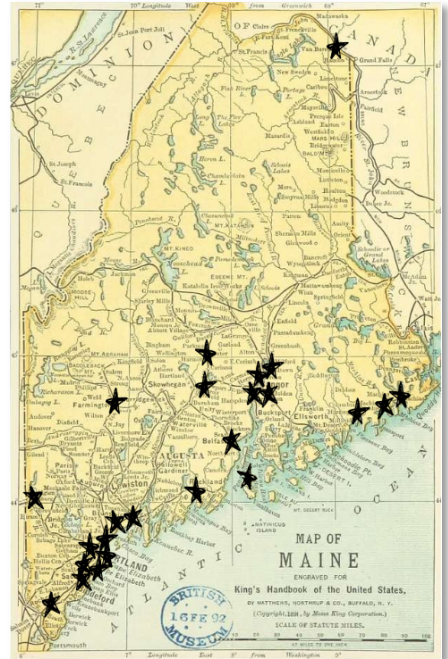
The following awards will be given to top qualifying projects:

American Psychological Association Award	Office of Naval Research Award
Association for Women Geoscientists Award	Regeneron Biomedical Science Prize
Citadel Securities Innovation Prize	Ricoh Sustainable Development Award
NASA Earth System Science Award	Society for In Vitro Biology Award
NOAA Taking the Pulse of the Planet Award	United States Air Force Award
NAYGN: Westinghouse - New England, Excellence in Energy Research Prize	Yale Science and Engineering Association Award

PARTICIPATING SCHOOLS

- Bangor High School
- Baxter Academy for Technology + Science
- BCOPE
- Brewer High School
- Brunswick High School
- Cape Elizabeth High School
- Dexter Regional High School
- Falmouth High School
- Foster CTE Center
- Fryeburg Academy
- Homeschool
- John Bapst Memorial High School
- Machias Memorial High School
- Maine Coast Waldorf School
- Medomak Valley High School
- Narraguagus Senior High School*
- Noble High School
- Nokomis Regional High School
- North Haven Community School*
- Old Town High School
- Orono High School
- Scarborough High School*
- Thornton Academy
- Van Buren District Secondary School
- Washington Academy
- Yarmouth High School*

*New in 2026



JUDGES

- Kehinde Joan Abayomi; The University of Maine
- Erin E. Anderson; University of New England
- Alexander Anesko; Tenstorrent
- Devan C. Arnold; Maine Mathematics & Science Alliance
- Maisha Asha; Maine Department of Education
- Daniel Avery; LGC Clinical Diagnostics
- Ashley Ballanger; Irving Forest Products
- Kallol Barai; The University of Maine
- Kwadwo O. Boakye; The University of Maine
- Colleen Bossie, PharmD; MaineHealth
- Craig A. Bossie; Bossie Hurley LLC
- Mouse Boucher; Surry Gardens
- Matthew Brichacek; The University of Maine
- Tionna M. Brothers, PhD; The Jackson Laboratory
- Justin Brown; The University of Maine
- Michael J. Camire, PhD; Husson University
- Ruth N. Che, PhD; The University of Maine
- Faith Chepkoech (Alumni); The University of Maine
- Sean Cosgrove; QISG
- James R. Crowley; Retired, Maine DEP
- Nabanita Das; The University of Maine
- Farahad Dastoor, PhD; The University of Maine
- Daniel Dixon; The University of Maine
- Conor Dodd; Lanco Integrated
- Frank Dudish; The University of Maine
- Amy Dunn, PhD; The Jackson Laboratory
- Cody B. Edson, PhD; Husson University
- Larry Feinstein, PhD; University of Maine at Presque Isle
- Jacqueline N. Flavian-Obasi; The University of Maine
- Allie E. Foster; Biodiversity Research Institute
- Navdeep Gogna, PhD; The Jackson Laboratory
- McKenna Goulette; University of Maine Pulp & Paper Foundation
- Kshanti Greene; Thomas College
- Sarah E. Grondin; Portsmouth Naval Shipyard
- Jessica Hacker, PhD; Husson University
- Adam Henckler; Portsmouth Naval Shipyard
- Sierra Holland, PhD CPM; Soft Corner Midwifery
- Lydia R. Horne, PhD; The University of Maine

Cary James; The University of Maine
Noro G. John; The University of Maine
Cory P. Johnson, PhD; MDI Biological Laboratory
Harpreet Kaur, PhD; The Jackson Laboratory
Nicholas R. Keeney; Hurricane Island Center for
Science and Leadership
Bashir Khoda, PhD; The University of Maine
Anil Raj Kizha, PhD; The University of Maine
Dan Klimek, PhD; Retired
Barry Magda; Central Maine Community College
Melissa Maginnis, PhD; The University of Maine
Zoe Mattingly; Tufts University, The Jackson Laboratory
Lauren A. Mayhew, DCS; University of Maine Augusta
Angela Mech, PhD; The University of Maine
Neal Mecum, PhD; Abbott Laboratories
Hannah Megathlin; The Jackson Laboratory
Brooklynn M. Merrill; MaineHealth Institute for Research
& University of Maine GSBSE
James L. Miller, PhD; The Jackson Laboratory
Monique Mills-Ray, PhD; The Jackson Laboratory
Madison Mueth; The University of Maine
Kevin J. Nolan; Abbott Laboratories
Prince Obosu, PhD; The University of Maine
Temidayo O. Ogunjinmi, PhD; The University of Maine
Christopher Okonkwo, PhD; The Roux Institute at
Northeastern University
Jesutomisin Hannah Olajuyin; The University of Maine
Olaleye Ebenezer Olajuyin; The University of Maine
Temitope Omotayo Olayinka; The University of Maine
Hilda Opoku Frempong; The University of Maine &
The Jackson Laboratory
Susana Owusu Ansah; Northeastern University
Colby C. Peters; University of New England
Lydia M. Pinard; Bigelow Laboratory for Ocean Sciences
Md Hafizur Rahman; The University of Maine
Evan L. Salcido, PhD; The University of Maine
Julia M. Saloni, PhD; Thomas College
Ehsan Sardar, PhD; The University of Maine
Meg Schierer; The University of Maine
Jill Schoof; Maine Maritime Academy
John R. Seavitt, PhD; The Jackson Laboratory
Isaac D. Sewell; The University of Maine
Ken Shoemake; Retired
Ankit K. Singh, PhD; The University of Maine
Surjeet Singh, PhD; The Jackson Laboratory
Rachelle M. Smith, PhD; Husson University
Harikrishnan Soman; The University of Maine
Ryan C. Talcoff; Tufts University & The Jackson Laboratory
Theodore W. Taylor; Appalachian Mountain Club
Libin Thaikkattil Louis, PhD; University of Maine at Fort Kent
Tharun Thiyagarajan; Husson University
Hailey N. Thomas; University of New England
Roberta L. Trefts; Husson University
Austin Watts; Watts Engineering
David A. Welch, PhD; University of Maine at Augusta
Tiffany A. Wilson; Stillwater Environmental Engineering, Inc.

PROJECTS

ANIMAL SCIENCES

Analyzing Moose Permit Data

Zunairah Khan; Brunswick High School

Animal research importance

McKenzie Roy; Nokomis Regional High School

Beaver Human Area Conflict

Lukas Jiang; Dexter Regional High School

Beehive Management and Microplastic Presence in Hives

Grace Jiang; Dexter Regional High School

Can *Paracentrotus micans* Use Phototaxis to Navigate a Maze?

Cristiano Vargas; Medomak Valley High School

Do Vultures & Eagles impact each other in Maine?

Whitneigh Bubar; Dexter Regional High School

Feeding Method Preference of Eastern Grey Squirrel (*Sciurus carolinensis*) Based on Amount of Food Taken and Time Taken;

Finnegan Zwintscher; Cape Elizabeth High School

How Food Sources Affect Interspecific Interactions In Pacific Reef Environments

Samuel Dudley & Kenzie Phillips; Brunswick High School

Maine dams' impact on water quality in the Penobscot River in relation to Atlantic salmon population recovery

August Twining Baker; Orono High School

Mermaids Don't Eat Plastic... But Tide Pool Invertebrates Sure Do
Ava Harvey; Old Town High School

The Effect Largemouth Bass on Game Ponds in Maine

Isaac Furrow & Johnathan Donaldson; Nokomis Regional High School

The effect of river acidification on the Maine fishing economy

Maisy Lipman; Yarmouth High School

The effect the natural turbidity of the water has on the color of fish

Gerald Gould; Nokomis Regional High School

The impact of barometric pressure on songbird feeding behavior

Gavin Gagnon; Van Buren District Secondary School

The patient foramen ovale prevalence in preserved ovine hearts;
Sophie Teelham; Cape Elizabeth High School

The relation between the size of an American lobster's claws and carapace size

Elena Weaver; Orono High School

Understanding Possible Factors in the Development of Hemangiosarcomas in Dogs

Logan Smith; John Bapst Memorial High School

What structures do Common Shiners prefer more?

Jerimiah Cobb; Dexter Regional High School

BEHAVIORAL & SOCIAL SCIENCES

Always Within Reach: A Nomophobia Survey

Joseph DellaValla & John DellaValla; Fryeburg Academy

Assessing Menstrual Awareness Amongst Female Athletes

Cecilia Fremont; Cape Elizabeth High School

Cell phones. How much do they really interfere with our relationships? Abigail Bartlett; Nokomis Regional High School

Comparison of Fine Motor Skills in Instrumentalists vs. Non-Instrumentalists; Clara Herman; Yarmouth High School

Different Genres of Classical Music and Their Effect on Short-Term Memory ; Abigael Francis; Cape Elizabeth High School

Digital Anxiety; Ashlyn Bouchard & Madyson Caron; Van Buren District Secondary School

Effects of Peer-Limited Social Media Usage

Nina Mitchell; Orono High School

Examining the possible effects of changing the AGR rule on goalkeeper tactics in the Champions league

Micah Olsen; Orono High School

Heading Frequency in Girls' and Boys' Varsity Soccer in Cape Elizabeth; Finley Digiovanni; Cape Elizabeth High School

High School Student's Ability to Critically Evaluate AI Generated Academic Reasoning; Duong Nguyen; Washington Academy

How Do Fidgets Impact Students' Informational Retention?
Ivory Oo; Orono High School

How do grades effect teenagers?
Jordyn Kelley; Nokomis Regional High School

How Do STEM Programs and Science Fair Influence STEM Career Paths?; Alanna Goss; Medomak Valley High School

How Music Affects The Autonomic Nervous System
Layla Stephenson; Maine Coast Waldorf School

How Scent Affects Memory Recall
Luca Kleeman; Cape Elizabeth High School

How Stories Affect Sleep Patterns In Females
Shaeleigh Buskirk; Van Buren District Secondary School

BEHAVIORAL & SOCIAL SCIENCES (CONTINUED)

How the presence of a visual distraction in the background affects how you can do a simple mental task
Adelaide Hess; Orono High School

Humans' ability to detect AI-generated photos versus human-taken photos based on age range; Addison Miller & Francesca Haydar; Cape Elizabeth High School

Images Influence on Human Ability to Correctly Categorize Scents; Syrin Hassan; Yarmouth High School

Measuring Stress In Terms Of Pressure And Time Management In High School Athletes
Avery Forsyth & Olive Blouin; Cape Elizabeth High School

Mindfulness and Post-Traumatic Stress Disorder in Maine Firefighters; Evelyn Titus; Orono High School

Music Training's Relationship with Teenagers' Brain Development; Jessica Murphy; Orono High School

Physical Activity and Sleep in the U.S. for Teenagers
William Ahrens; Yarmouth High School

Physician Perceptions of Generative and Explainable Artificial Intelligence across Rural and Urban Healthcare Settings
Chloe Murdock; Dexter Regional High School

Seasonal Depression
Joseph Monk; Nokomis Regional High School

Smell & Memory Make Scents: How Different Scents Impact Memory ; Eleanor Weyenberg; Yarmouth High School

Stereotype and candidate evaluation
Liana Martinez & Samara Reidy; Orono High School

Student Phone Usage During the School Day
Rubina Anker; Cape Elizabeth High School

Teacher's Takes on Reading Amounts Through Grades and Over the Years; Sophia Brozman; Bangor High School

The Attitude and Use of Artificial Intelligence in the Classroom
Alexis Willey; Medomak Valley High School

The Effect of "Grandma" Hobbies on Perceived Stress Levels
Beatrice Schatz; Maine Coast Waldorf School

The Effect of Dancing on Mood
Cara Feldman; Nokomis Regional High School

The Effect of Long-Term Brand Loyalty on Cognitive Dissonance in Consumers
Cecilia Haynes; Yarmouth High School

The Effects of Singing on Perceived Anxiety Levels
Kai McLeod-Sprague; Maine Coast Waldorf School

The effects of the Trump administration on immigrants' perceptions of the U.S.
Hajar Wise & Lucas Forbes; Orono High School

The Impact of Choice: Improving Speech Outcomes Through Client-Led Therapy; Taryn Maldonado; Homeschool

The Impact of Circadian Rhythm on the Behaviors of *Drosophila melanogaster*
Angel Wadsworth; Medomak Valley High School

The Impact Of Screen Time Among Teens & Its Relationship To Sleep Quality & Life Satisfaction
Shelby Sinclair; Dexter Regional High School

The Maine Youth Voter Turnout
Anna Guzzi; Nokomis Regional High School

Treatment Effectiveness for Mental Blocks in Gymnastics
Lily Breen; Orono High School

Voter Decision Making
Amber Haining; Nokomis Regional High School

What is better for a grades 9th and 10th grade girls focus → scrolling or going for a walk
Cora Fleming; Yarmouth High School

What Levels of Historical Trauma do the Penobscot People Face Across Generations? Alkhader Wise; Orono High School

BIOLOGICAL & BIOMEDICAL SCIENCES

Spinosaurid Phylogeny and Potential Ancestors
Braedyn Smythe; Dexter Regional High School

The Differences in Conductivity and Human Vital Signs for Home-made Vs. Store Bought Electrolyte Solutions
Elijah Pinkham; Van Buren District Secondary School

The Effect of Offshore Wind Frequencies on *Pyrocystis fusiformis* Quorum Sensing
Kendra Weaver & Tess Welch; Brunswick High School

From Protecting to Wrinkling: Assessing the Effect of Antioxidant Serums on UV-Induced Protein Denaturation Using

Albumin as a Skin Model
Fatimah Salam & Salam Salam; Thornton Academy

An Analysis of Risk Factors for Chronic Hypertension Following Hypertensive Disorders of Pregnancy
Hanna Ajemian; Falmouth High School

Bacteriophage therapies against cancer and using bioinformatics to track genetic patterns of cancer causing bacteria; Bridgette White; Nokomis Regional High School

Cell Phones and Affects on Health
Gavin Mower & Travis Nania; Nokomis Regional High School

BIOLOGICAL & BIOMEDICAL SCIENCES (CONTINUED)

Coagulation Dysfunction in Organ Xenotransplantation
Estella Regnier; Falmouth High School

Comparing the Oxytocin Receptor Gene in Mammals and Maternal Behavior using Bioinformatics
Tilia Meinersmann; Medomak Valley High School

Developing an Application for the Monitoring of Sleep Apnea
Preston Couto; Bangor High School

Diabetes Technology
Ruby Whitmore; Old Town High School

Difference in Plyometric overload and Weight overloads in Vertical jump; Sutton Yi; Yarmouth High School

Hippocampal Vulnerability to Chronic High Glucose: A CA1-CA3 Comparative Computational Analysis
Trang Nguyen; Washington Academy

Improving Rural Cancer Patient Access to Treatment: PIK3CA Mutations In Colorectal Cancer Patients
Brandon Brozman; Bangor High School

Measuring the Effects of Energy Drinks & CBD on Daphnia Magna; Henry Boucher; Cape Elizabeth High School

Methods for Dissolving Simulated Calcium-Based Kidney Stones; Mizuki Pace; Nokomis Regional High School

Stem Cells and Cerebral Palsy
Baylee Packard; Dexter Regional High School

The Effect of Covid-19 on Humans
Hallie Coats; Nokomis Regional High School

The Effects of Caffeine on the Regeneration of Planaria
Natalie Simmons; Medomak Valley High School

The Effects of Diet Patterns on Fertility of *Drosophila melanogaster*; Maggie Bruno; Medomak Valley High School

The Effects of Natural vs. Chemical Antioxidants on the Population and Stress Levels of *Caenorhabditis elegans*
Anna Cheesman & Kirsten Creamer; Medomak Valley High School

The Effects of Red Bull on the Behavior of Crayfish
Addison Crawford; Medomak Valley High School

The Effects of Scented Candles on the Gender Ratio of *Drosophila melanogaster* Offspring
Kendall Wyman; Medomak Valley High School

The Protective Effects Of Certain Regenerative Supplements on *Drosophila melanogaster* Being Exposed to Ultraviolet Radiation;
Tenzin Ware; Medomak Valley High School

The RNA-Binding protein CELF4 will prevent the synthesis of TRPV1; Sophia Turker; Falmouth High School

Understanding How Concussions Affect the Brain; Alyssa Whitten & Rylee Rancourt; Nokomis Regional High School

Urinalysis: The Effects Of Energy Drink Compounds On Electrolytes Within The Human Body; Lauren Russell & Brylee Beaulieu; Nokomis Regional High School

Using PCR to Observe the Effects of Perfluorooctanesulfonic Acid on the Kidney in *Danio rerio*
David Creamer; Medomak Valley High School

What could treatment for HLHS be like in the future using space medicine?; Steven Poisso; Dexter Regional High School

CHEMISTRY & MATERIALS SCIENCE

A Comparative Analysis of Egg Replacers in Baking
Daisy Swindler; Medomak Valley High School

Bio-IVP: The Biodegradable Intravenous Packet
Riley Bosco; Bangor High School

Calcium Cross-linked Alginate Hydrogels Effect on Lead-contaminated Water; Madalynn Brichacek; Orono High School

Can optimizations of the photomolecular effect improve the efficiency of water desalinization and decontamination?
Ryan Movalia; John Bapst Memorial High School

Can Water Electrolysis Be A Viable Method For Fueling Hydrogen Vehicles?; Braiden Smith; Noble High School

Composites vs. Climate: Predicting the Impact of Environmental Extremes; Sophia Morgan; Old Town High School

Designing and Optimizing a Passive Evaporative Refrigerator for Medical Cold-Chain Transportation
Anca Soare & Meghna Vijay; Bangor High School

Developing a Hydrogen PEM Fuel Cell with Fe-N-C Catalyst
Jonah Milton; Cape Elizabeth High School

Evaluating PLA Bioplastics Compared to Standard Retainer Plastics: Durability, Safety, and Biodegradation in Orthodontic Materials; Fatimah Almarhoon; Bangor High School

How to improve the comfort of wear mask through reduce breathing resistance; Nuolin Chen; Bangor High School

Making Ink from Maine Invasive Plants
Finn Gilbert; Cape Elizabeth High School

Sodium chlorides influence on water's ability to conduct electricity; Natalie Coolidge; Yarmouth High School

Testing the Thermally Insulating Properties of Different Insulators with and without Silica Aerogel Particle-Infused Paint;
Noah Scott & Miles Vettese; Cape Elizabeth High School

The difference in the decomposition of ultra-processed and unprocessed foods; Phoebe Evans; Cape Elizabeth High School

COMPUTER SCIENCE & MATHEMATICS

A Low-Cost Implementation of High-Speed Autonomous Drone Navigation; Kasey Nanovic; Falmouth High School

AI-Enabled Semantic Graph Analysis of Education Futures
Jasmine Juraboeva, Annika Noblet, & Lily Coon; Bangor High School

AI-Guided Real-Time Path Planning for Resource-Constrained Drones; Adrian Gevorgyan; Falmouth High School

Analyzing the Effects of New England's Snowmaking Industry on Global Warming ; Harper Nelson; Brunswick High School

Asa Corey Game - Looks... or personality? Which is actually more important... In game design, of course.
Asa Corey; Bangor High School

Assessing Early-Season Snow Reliability with R: Maine's XC Ski Season; Reid Quirk; Orono High School

Machine Learning Approaches to Predicting Stress-Driven Glucose Spikes; Maisie Cox & Clara Oldenburg; Bangor High School

ENGINEERING

AEROSAVE: Autonomous Emergency Reconnaissance & Observation System for Aquatic Victim Emergency-aid; James Mitchell, Sam Lavallee, & Wyatt Binette; Falmouth High School

An Effective 3d Printed Water Filter
Daniel Holsapple; Bangor High School

Analyzing the Effectiveness of Helical Fin Geometries for the Purpose of Stability
Jeffery Webber; Nokomis Regional High School

Angle of a Wing Wall on the Effectiveness of a Malqaf Windcatcher; Peter Kurbatov; Orono High School

Beyond the Gust: High-Efficiency Wing Designs for Fixed-Wing UAVs; Cooper Neely; Old Town High School

Bridge Strength Testing; Mega bridges vs. normal suspension bridges; Kiptyn DeHaan; Van Buren District Secondary School

Buddy Back : Emergency Alert Device for First Responders
Tristan Miniutti; Noble High School

Carbonated Water
Benjamin Hatch; Foster CTE Center

Design and Implementation of a Self-Sustaining Hydraulic Water Delivery and Distribution System for Community Greenhouse; Alexander Violette & Alexander Bebout; Van Buren District Secondary School

Design of a Passive Tuned Mass Damper for Parkinsonian Tremor Attenuation
Charles Bruder & Connor Gooch; Falmouth High School

Developing Accessible Early Screening For Diabetic Retinopathy Using Electroretinogram and Fundoscopy
Emme Nguyen; Bangor High School

Identifying viable radiation dose ranges to balance competing objectives of tumor response and off-target toxicity
Ryan Werthmann; Falmouth High School

My JROTC: A JROTC Unit Management Platform
Abigail Caron; Bangor High School

Neural Network-Based Modeling and 3D Printing of Engineered Porous Media; Zafir Bashir; Bangor High School

Stock Market Direction Prediction using Machine Learning and Market Sentiment Indicators; Vasily Lee; Brunswick High School

The Collection and Easy Access of Animal Diseases and Treatments; Samuel Denty; Bangor High School

Designing and Building a Walking-Powered Electricity Generator; Emmy Xu; Falmouth High School

Enhancing Mealtime Safety Through Adaptive Dishware
Kaydance Robichaud & Kyleigh Eisenhour; Nokomis Regional High School

Designing and Optimizing a Dialysis Model Using Layered Filtration and Cross-Membrane Diffusion Methods
Ama Opoku; Bangor High School

Get a Grip: How Surfaces Affect Strength in Clasp-Style Prosthetics; Phoebe Yerxa; Old Town High School

How does tidal energy compare in a bay vs an inlet or channel
Liam Doughty; Medomak Valley High School

IRIS — Intelligent Robotic Identification and Sorting
Jonah Chang; Cape Elizabeth High School

Optimizing offshore wind turbine bases for more reliable energy production; Paul Friess; Bangor High School

Paper from the Unwanted: A Study of Japanese Knotweed
Quinn Andrews; Bangor High School

Protecting against the effects of solar storms: Are DIY Faraday cages a realistic option?
Jake Fleming; Dexter Regional High School

Quantifying Ship Noise Pollution in Casco Bay and Its Potential Impact on Maine Fisheries
Victoria Wahlig; Falmouth High School

ENGINEERING (CONTINUED)

Rapid Strain Measurement of Civil Infrastructure using Homography-Based QR Code Pattern Tracking
Surya Vel; John Bapst Memorial High School

Rocket Nozzle Designs
Gabriel Gagnon; Bangor High School

Scooter Speed
Logan Morse; Nokomis Regional High School

ENVIRONMENTAL SCIENCES

Climate Changes Effects on Subnivean Environments in Southern Maine
Amelia Welborn; Cape Elizabeth High School

Comparing Temperature and Precipitation data between Inland and coastal microclimates in Cape Elizabeth Maine
Aral Kan Azis; Cape Elizabeth High School

Determining the Effect of Increased Atmospheric Temperature in the Effectiveness of Herbicides
Lucy Russell; Brunswick High School

Effect of Humidity and LED Color Temperature on Light Pollution Amplification
Taehee Kim & Zihan Zhou; Thornton Academy

Environmental Consequences of Road Salt: Impacts on Soil Microbial Communities
Raphia Mattsen & Daniel Tarr; Bangor High School

Environmental Impacts of AI: Student Usage and Perceptions of the Impact;
Hadley Oliver; John Bapst Memorial High School

Exploring Microplastic Distribution in the Portland Area Based on GNOME Current Simulations
Hailey Fallon; Cape Elizabeth High School

How can we reduce electrical costs at my school
Jackson Bradley; Dexter Regional High School

How pollution from nearby transportation sources affects water quality in the Scarborough Marsh
Esmee Ritch & Adriana Ousback, Scarborough High School

Microplastics in Maine Sea Salt
Wenshin Lu; Cape Elizabeth High School

Obstacles to Integrated Pest Management in Maine Golf Courses
Dominic Madore; Orono High School

Phosphorus Levels Upstream and Below-stream of Dams in the Penobscot River
Lila Ouellette; Orono High School

Plastic in Paradise? Microplastic Pathways in High-Quality Freshwater Ecosystems
Isaac Austin; Old Town High School

Shock Detection Bracelet Prototype
Mollie Webber; Yarmouth High School

VAWT vs HAWT
Jack Hunt; Yarmouth High School

ReCap: From Trash to Utensils
Ava Middleton; Bangor High School

Relationship between larval plankton and sea water temperatures
Isabelle Bam; Cape Elizabeth High School

Runoff Contamination
Callie McCarley; Cape Elizabeth High School

Runoff's effect on Plant Growth
Julia Tracy & Samantha McKee; Falmouth High School

Safe Sipping; Are Our Springs Safe?
Daniel Goncharov; Bangor High School

Sand layers' relation to wave energy
Elizabeth Adams; Cape Elizabeth High School

Simon Scraps E-Waste Recycling
Simon Brainerd; Baxter Academy for Technology and Science

The Effect of Arbuscular Mycorrhizal Fungi and Biochar on the Uptake of Per- and Polyfluoroalkyl Substances in Harvestable Crops; CJ Pluecker; Medomak Valley High School

The Effect of Dryer Lint Accumulation on the Leaves of Broad Beans (*Vicia faba*)
Kelsie Law; Cape Elizabeth High School

The Effect of Ocean Acidification on Mussel Growth and Shell Durability
Charlotte Lachance; Yarmouth High School

The Effect of Various Edge Crops on the Mitigation of Agricultural Runoff on Water Quality of a Freshwater Body
Bradley Overlock; Medomak Valley High School

The Effects of Mineral vs Chemical Sunscreens on the Growth of *Arthrospira platensis*
Anna Reed; Medomak Valley High School

The Effects of Road Salt on Plants and Soil Health
Ani Bush & Keira Kelly; Falmouth High School

The Effects of the Kakhovka Reservoir on the Local Climate in Southern Ukraine
Sophia Tyutyunnyk; Orono High School

ENVIRONMENTAL SCIENCES (CONTINUED)

The Impact of *Saccharina latissima* on the Growth of Sea Clams
Cadence Overlock; Medomak Valley High School

The negative effects of plastic on the environment
Kaydence Monti; Nokomis Regional High School

To Carpool, or Not To Carpool, That Is The Question
Ellen Bloch; Maine Coast Waldorf School

Using GIS to Track Lobster Population in Maine
Silas Grey & Cameron Tarr; Bangor High School

Using Moss as a Bioindicator of Airborne Particulates Across
an Urban to Rural Gradient

Logan Martin; John Bapst Memorial High School

Water Quality Indicators in the Groundwater and
Surface Waters of Cherryfield, Maine

Jenna Bishop; Narraguagus Junior/Senior High School

MICROBIOLOGY

Annotating and Characterizing the Genomic Features of a
Bacteriophage Isolated from a Sample of Soil from the
University of Maine; Emily Sherman; Orono High School

Antibacterial Properties of Different Fungal Extracts
Jared MacDonald; North Haven Community School

Biostimulation for Motor Oil Degradation with *Pseudomonas*
Floresens and *Bacillus Cereus* Through Manipulation of Nitrogen
and Phosphorus Nutrients; Lillian Coriaty; Fryeburg Academy

Effect of Hand Hygiene on Biodiversity of Bacteria Found
Under False Nails

Azlynn Olson; Nokomis Regional High School

Effectiveness of spices on the inhibition of *E. coli* growth
Juliet Keniston; Dexter Regional High School

Effects of Benzoyl Peroxide, Salicylic Acid, and Glycolic Acid
on *Staphylococcus Epidermidis* Growth
Afton Mick; Falmouth High School

How Mold Grows in Processed Foods Compared to Organic
Foods

Tamara Lucas & Clara Pratt; Falmouth High School

Investigating *Pleurotus ostreatus* growth techniques as an
alternative to meat based protein

Sophia Lopez; Brunswick High School

Mimicking Immune Priming: Stress Adaptation in Yeast
An Nguyen; Fryeburg Academy

Mold Growth on White Bread From Supermarket vs Bakery vs
Home

Sophie Estes; Cape Elizabeth High School

The antibacterial efficacy of honeys from different floral sources
in Maine

Maria Stone; Orono High School

The Effect of Secondary Metabolites in Sphagnum Moss on
Gram-Negative K-12 *E. coli* Bacteria

Mallory Smith; Nokomis Regional High School

The impact of sunlight exposure on biofilm development in
freshwater ecosystems

Audra Brooks; Orono High School

Understanding The Relationship Between Biodiversity & Harmful
Algal Blooms

Henrique Simoes; John Bapst Memorial High School

PLANT SCIENCES

Comparing Commercial and City Compost: Effects on Plant
Growth, pH, and Moisture

Zhirou Lin & Viley Lin; Bangor High School

Daylily Hybridization

Ana Kelly; Falmouth High School

Evaluating the Trees: Examining the Effects of Prism Factor
and Averages on Basal Area Predictions

Dakota Shorey; Orono High School

Exploring the relationship of soil water retention between
invasive versus native plants

Sophia Kulikowski; Orono High School

Grow Anywhere

October Patterson; BCOPE

Growing plants in different soil

William Jilek; Nokomis Regional High School

How Beech Leaf Disease and Beech Bark Disease Affect
Bangor Forests

Brody Reid & Benjamin McKay; Bangor High School

How does BHS vermicomposting accelerate the growth of
plants

Ryen Frost; Bangor High School

Locate, Measure, Tag: Tracking Beech Leaf Disease in Maine
Forests

Eli Nangle; Bangor High School

Phosphorus Busters: Circulating for Clean Water

Samuel Martin; Bangor High School

PLANT SCIENCES (CONTINUED)

Predicting Tree Height from Diameter at Breast Height in Maine Forests

Shreyassu Handral; Brewer High School

Rehabilitation of Nutrient Depleted Dormant Town Blueberry Field

Lauren Livesay; Brunswick High School

Revitalizing marsh grass indoors

Phoebe Shank; Machias Memorial High School

The Effect of Mycorrhizal Fertilizers on Drought Resistance in Maize Crops

Annabelle Foianini & Abigail Grunewald; Yarmouth High School

The Effects of Arbuscular Mycorrhizal Fungi and Biochar on the Growth and Health of *Solanum lycopersicum*

Abigail Kopishke; Medomak Valley High School

The Effects of Arbuscular Mycorrhizal Fungi on the Recovery Rate of *Solanum lycopersicum* After a Drought

Grady Emerson; Medomak Valley High School

The Effects of Chitosan Fertilizer on *Solanum lycopersicum* Inoculated with Arbuscular Mycorrhizal Fungi

Judd Gamage; Medomak Valley High School

The Effects of Seaweed Extract on the Growth and Biofortification of *Brassica oleracea*

Summer Weston; Medomak Valley High School

The Effects of Vermicompost mixed with Manure vs Food Scraps on the Growth of Basil

Hannah Fecteau; Medomak Valley High School

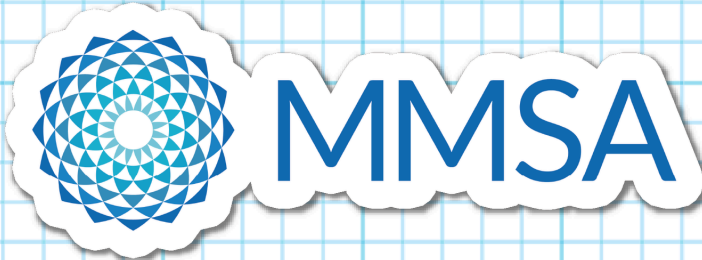
The Impact of Selective Breeding on *Petunia* Traits Compared to Parent Plants

Keaton Mosunic; Cape Elizabeth High School

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