

**35th BLUE RIDGE HIGHLANDS REGIONAL SCIENCE FAIR
MARCH 27 – 28, 2026
RADFORD UNIVERSITY**

STUDENT WINNERS

- 101 Lilly Bowman**
The Birth Weight of Lambs When The Ewe is Fed More Protein
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Animal Sciences – Third Place
American Society of Mammalogists Award
- 103 Xavier Gitre**
Parent-absent begging in Eastern Bluebirds: structural characteristics, environmental correlates, and parental responses
Blacksburg High School
Sponsor: Katharine Davis
Grand Award Winner
Virginia Science and Engineering Fair Delegate
Animal Sciences – First Place
- 104 Madeline Jennings**
The Laying Rate of Hens in Relation to Their Environment
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Society for In Vitro Biology Award
- 105 Liam Lauria-Leighton**
Hermit Crab Claw Strength as Related to Body Weight
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
Animal Sciences – Second Place
- 106 Aidan Ralston**
Does the Configuration of Feeding troughs Affect the Time it Takes for the Herd to Finish Eating?
Southwest Virginia Governor's School
Sponsor: Megan Arnold
Animal Sciences – Honorable Mention
American Society of Mammalogists Award

- 201 Alice Bartos**
Exploring the Association Between the KIAA0319 Genetic Marker and Dyslexic Traits in High-Achieving High School Students
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
Behavioral and Social Sciences – Honorable Mention
- 203 Piper Chamlis**
The Effect of Education about Titanium Dioxide as a Food Additive on Consumer Choices
Southwest Virginia Governor's School
Sponsor: Greg Riffe
Behavioral and Social Sciences – Third Place
- 210 Aleah Palmer**
Impact of Video Game Platform Types on Touch Based Reaction Times
Southwest Virginia Governor's School
Sponsor: Megan Arnold
Virginia Science and Engineering Fair Delegate
Behavioral and Social Sciences – Second Place
Emory and Henry Scholarship
- 211 Lilyanna Simpkins**
Evaluating the Emotional Response between Real and AI Images from Different Softwares
Southwest Virginia Governor's School
Sponsor: Megan Arnold
Virginia Science and Engineering Fair Delegate
Behavioral and Social Sciences – First Place
American Psychological Association Award
United States Air Force Award
- 301 Santiago Angulo**
The effect of weight training on sprint performance in adolescent male swimmers during a three month period
Blacksburg High School
Sponsor: Katharine Davis
Biochemistry; Biomedical and Health Sciences – Third Place

- 303 Joshua Osemobor**
Analyzing the Effectiveness of Expansion Techniques of Meningeal Tissue
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
Grand Award Winner
Virginia Science and Engineering Fair Delegate
Biochemistry; Biomedical and Health Sciences – First Place
Biomedical Engineering Award - Virginia Tech – First Place
Regeneron Biomedical Science Award
- 304 Jacelyn Peak**
From Powder to Power: Absorption Performance of Synthetic Hydrogels
Twin Valley High School
Sponsor: Nikki Peak
Biochemistry; Biomedical and Health Sciences – Second Place
- 401 Larah Clemons**
Supportive Capabilities of a Limited Motion Ankle Brace
Southwest Virginia Governor's School
Sponsor: Matthew Frazier
VCOM-Virginia Public Health and Healthcare Award – Second Place
Radford University Scholarship
- 402 Avi Gandhi**
Histotripsy for the Treatment of Cauliflower Ear: A Feasibility Study in Porcine Ears
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
VCOM-Virginia Public Health and Healthcare Award – Third Place
New River Community College Scholarship
- 403 Mirabella Garza**
Influence of Infant car Seat Carrying Technique on Lower-limb Symmetry During Gait
Blacksburg High School
Sponsor: Katharine Davis
Biomedical Engineering – Third Place

- 404 Joanna Jackson**
Screwable Modular Components for the Pylon of Pediatric Leg Prosthetics
Southwest Virginia Governor's School
Sponsor: Matthew Frazier
Virginia Science and Engineering Fair Delegate
Biomedical Engineering – First Place
American Red Cross Award – New River Valley; Science in Service to Our Communities
VCOM-Virginia Public Health and Healthcare Award – First Place
Yale Science and Engineering Association Award
- 405 Ian Jora Macrea**
The Effects of Electromechanical Uncouplers Blebbistatin and Bdm on Cardiomyocyte Conduction Velocity
Blacksburg High School
Sponsor: Katharine Davis
Biomedical Engineering – Second Place
Biomedical Engineering Award - Virginia Tech – Third Place
- 501 Saad Ali**
Investigating Diurnal Oscillations of Cell Division Timing in Stentor coeruleus
Blacksburg High School
Sponsor: Katharine Davis
Virginia Science and Engineering Fair Delegate
Cellular and Molecular Biology; Microbiology – First Place
Office of Naval Research Distinguished Achievement Award
- 502 Lauren Linford**
Testing How Often Trombone and Baritone Mouthpieces Should Be Cleaned to Remove Streptococcus salivarius
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
Cellular and Molecular Biology; Microbiology – Second Place
American Association of University Women Award
- 503 Rishi Nair**
Comparing type 1 and 2 immunoglobulins in STAT4 myeloid cell knock out in MRL/lpr mice
Blacksburg High School
Sponsor: Katharine Davis
Cellular and Molecular Biology; Microbiology – Third Place
American Society of Biochemistry and Molecular Biology Award
Biomedical Engineering Award - Virginia Tech – Second Place

- 601 Olivia Close**
Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in Honey Produced in Southwest Virginia Apiaries
Southwest Virginia Governor's School
Sponsor: Jared Brown
Virginia Science and Engineering Fair Delegate
Chemistry – First Place
American Chemical Society, Tennessee Virginia Highlands Section Award – Second Place
American Chemical Society, Virginia Blue Ridge Section Award
- 602 Lorelei Collier**
Comparing Protein Content in Gluten-Free Flours
Southwest Virginia Governor's School
Sponsor: Jared Brown
American Chemical Society, Tennessee Virginia Highlands Section Award – Third Place
- 603 Avery Dhanraj**
How Sulfur-Containing Products Affect the Tarnish Rate of Silver-Plated Jewelry
Southwest Virginia Governor's School
Sponsor: Jared Brown
Chemistry – Second Place
American Chemical Society, Tennessee Virginia Highlands Section Award – First Place
Iota Sigma Pi Award
- 604 Mya Gustafson**
The Effect of the Type of Egg on Soufflé Characteristics
Southwest Virginia Governor's School
Sponsor: Megan Arnold
Chemistry – Third Place
- 701 Lucas Holland**
Modeling Spatial Temperature Structure Using Generalized Additive Models and Local Indicators of Spatial Association
Blacksburg High School
Sponsor: Katharine Davis
Virginia Science and Engineering Fair Delegate
Earth and Environmental Sciences – First Place

- 702 Haley Stone**
Thermal Dynamics of Caves: Influence of Single Versus Multiple Entrances
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
Earth and Environmental Sciences – Second Place
Association of Women Geoscientists Award
National Oceanic and Atmospheric Administration Award
- 703 Milo Tao-Lin**
Investigating the effect of the Number of predictor Locations and Predictor Location Concentration on LSTM Precipitation Dry/Wet Hour Classification
Blacksburg High School
Sponsor: Katharine Davis
Earth and Environmental Sciences – Third Place
Mount Tabor Ruritan Club Award
National Weather Service Award
- 801 Mateja Grove**
Harmonic-Based Estimation of Coil Misalignment in Low-Power Wireless Power Transfer systems
Blacksburg High School
Sponsor: Katharine Davis
Embedded Systems; Robotics and Intelligent Machines – Second Place
United States Air Force Award
- 802 Ian Yu**
Performance Analysis of a 5 Bar linkage entapod for Martian locomotion
Blacksburg High School
Sponsor: Katharine Davis
Grand Award Alternate
Virginia Science and Engineering Fair Delegate
Embedded Systems; Robotics and Intelligent Machines – First Place
- 803 Ethan Zhu**
Autonomous Robotic Arm for Detection and Collection of Sidewalk Trash Using Machine Learning and Stereo Vision
Blacksburg High School
Sponsor: Xiaoyi Xu
Embedded Systems; Robotics and Intelligent Machines – Third Place
Office of Naval Research Distinguished Achievement Award

- 901 Dahlia Obiedat**
Evaluating Solar Powered Desalination on San Andres Island: A Systems-Level Feasibility Analysis
Blacksburg High School
Sponsor: Michele Sudweeks
Energy: Sustainable Materials and Design; Environmental Engineering – Second Place
Genius Olympiad
National Aeronautics and Space Administration Earth System Science Award
Stockholm Junior Water Prize – Second Prize
United States Metric Association Award
- 902 Eleanor Steele**
Temperature-Dependent Filtration Efficiency of SMS Nano-biochar for Trimethoprim Removal
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Virginia Science and Engineering Fair Delegate
Energy: Sustainable Materials and Design; Environmental Engineering – First Place
Citadel Securities Innovation Prize
Genius Olympiad
Ricoh Corporation Sustainable Development Award
Stockholm Junior Water Prize – First Prize
United States Air Force Award
Virginia Lakes and Watersheds Award
- 903 Tony Zhao**
Open Circuit Potential of FUNaK salt in 0.5M Nitric Acid
Blacksburg High School
Sponsor: Katharine Davis
Energy: Sustainable Materials and Design; Environmental Engineering – Third Place
- 1001 Cedar Heartway**
How Varying Serrations on Trailing Edges of Propeller Affect the Noise Produced by Micro Drone Propellers
Southwest Virginia Governor's School
Sponsor: Matthew Frazier
Engineering Technology: Statics and Dynamics – Third Place

1002 Mohamed Abdel Motaleb

How do different mycelium species and substrate formulations influence soil stability and strength

Blacksburg High School

Sponsor: Katharine Davis

Engineering Technology: Statics and Dynamics – Second Place

1004 Spencer Sisson

Using an Arduino Microcontroller and Repurposed Remote Control Car to Develop a Pacing Device for Track Athletes

Southwest Virginia Governor's School

Sponsor: Matthew Frazier

Virginia Science and Engineering Fair Delegate

Engineering Technology: Statics and Dynamics – First Place

1101 Michael Baron

The Effects of Assorted Fluids on Saxophone Reed Durability

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Materials Science – Third Place

1102 Lydia Pratt

The Effects of Nickel Content and Quenching Rate on the Mechanical Properties and Microstructure of ASTM A588 Weathering Steel

Southwest Virginia Governor's School

Sponsor: Sherry Pugh

Virginia Science and Engineering Fair Delegate

Materials Science – First Place

1104 Addison Vest

The Effect of Color on the Bleed-Through Rate of Highlighters

Southwest Virginia Governor's School

Sponsor: Jared Brown

Materials Science – Second Place

1201 Ellie Blankenship

The Probability of Two People Wearing the Same Color Shirt

Southwest Virginia Governor's School

Sponsor: Greg Riffe

Mathematics – Third Place

- 1203 Adelaide Li**
Long-Term Sustainability of a Wealth Tax Base Under Liquidity Constraints: An Agent-Based Modeling Approach
Blacksburg High School
Sponsor: Katharine Davis
Virginia Science and Engineering Fair Delegate
Mathematics – First Place
- 1204 Addison Sheets**
Determining Funding Strategies at Southwest Virginia Animal Shelters
Southwest Virginia Governor's School
Sponsor: Megan Arnold
Mathematics – Second Place
Radford University Scholarship
Wytheville Community College Scholarship
- 1301 Jay Hoerter**
Observer Sensitivity to an Oscillating Diode
Southwest Virginia Governor's School
Sponsor: Jared Brown
Physics and Astronomy – Third Place
- 1302 Melvin Palmer**
Defending Against Cosmic Muons: How Material Type, Thickness, and Location Affect Human Exposure
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Virginia Science and Engineering Fair Delegate
Physics and Astronomy – First Place
- 1303 Josiah Townsend**
An Analysis of Neutrino Detectors in Nuclear Security
Blacksburg High School
Sponsor: Katharine Davis
Physics and Astronomy – Second Place
- 1401 Leighann Bruce**
Soil, Climate, and Carrot Quality: Comparing Agricultural Regions in Virginia
Southwest Virginia Governor's School
Sponsor: Jared Brown
Plant Sciences – Second Place
Mount Tabor Ruritan Club Award

- 1402 Saige Carico**
Limosilactobacillus fermentum on Growth Enhancement of Pea Plants in Acidic Soil
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Virginia Science and Engineering Fair Delegate
Plant Sciences – First Place
- 1403 Garrison Wheatley**
The Effects of the Introduction of Salicylic Acid and a Rapid Drop in Nutrient Concentration on Spirodela polyrhiza for the Purpose of Inducing Flowering
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
Plant Sciences – Third Place
- 2101 Sora Powers**
Bunny-Bonding: How does it help when training a rabbit?
St. John Nuemann Academy
Sponsor: Suzanne Gilley
Animal Sciences + Biochemistry + Biomedical and Health Sciences + Microbiology – Third Place
American Society of Mammalogists Award
VCOM-Virginia Public Health and Healthcare Award – Third Place
- 2102 Lyhout Veng**
Determining Mass of Extracted DNA from Different Fruits
St. John Nuemann Academy
Sponsor: Suzanne Gilley
Animal Sciences + Biochemistry + Biomedical and Health Sciences + Microbiology – First Place
Thermo Fisher Scientific Junior Innovators Award
- 2103 Dylan Smith and Gracie Viers**
Racing Heart
Twin Valley Elementary/Middle School
Sponsor: Rebecca Whited
Animal Sciences + Biochemistry + Biomedical and Health Sciences + Microbiology – Second Place
VCOM-Virginia Public Health and Healthcare Award – First Place

- 2201 Mya Cecchini**
Stain Pain Hurt Your Brain? The Ultimate Stain Remover Faceoff
Classical Conversations
Sponsor: Anna Cecchini
Chemistry + Earth and Environmental Sciences – First Place
American Chemical Society, Virginia Blue Ridge Section Award
Citadel Securities Innovation Prize
Office of Naval Research Distinguished Achievement Award
- 2204 Jodi Keller**
Which Liquid Will Freeze Faster?
Twin Valley Elementary/Middle School
Sponsor: Lori Ratliff
Chemistry + Earth and Environmental Sciences – Third Place
- 2209 Emily Vasquez-Mayorga**
Ingredient Interaction: What happens when an ingredient is left out?
St. John Nuemann Academy
Sponsor: Suzanne Gilley
Chemistry + Earth and Environmental Sciences – Second Place
- 2301 Analiese Hess**
The Great Weight Debate
Homeschool
Sponsor: Danielle Hess
Engineering Technology: Statics and Dynamics + Materials Science + Physics and Astronomy – First Place
Office of Naval Research Distinguished Achievement Award
Thermo Fisher Scientific Junior Innovators Award
- 2302 Emily Layne**
Hydraulics
Hurley Elementary/Middle School
Sponsor: Scott Embery
Engineering Technology: Statics and Dynamics + Materials Science + Physics and Astronomy – Second Place
Iota Sigma Pi Award
Lemelson Early Inventor Prize
- 2401 Becca Diaz**
Carnation Information: which one dies first?
St. John Nuemann Academy
Sponsor: Suzanne Gilley
Plant Sciences – Second Place
VCOM-Virginia Public Health and Healthcare Award – Second Place

2402 Alexandre Domingues

The Effect of Various Fertilizers on Radish Growth

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Plant Sciences – First Place

Mount Tabor Ruritan Club Award

Thermo Fisher Scientific Junior Innovators Award

Virginia Lakes and Watersheds Award