

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

WINNERS BY CATEGORY

GRAND AWARD WINNERS

103 Xavier Gitre

Parent-absent begging in Eastern Bluebirds: structural characteristics, environmental correlates, and parental responses

Blacksburg High School

Sponsor: Katharine Davis

303 Joshua Osemobor

Analyzing the Effectiveness of Expansion Techniques of Meningeal Tissue

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

GRAND AWARD ALTERNATE

802 Ian Yu

Performance Analysis of a 5 Bar linkage entapod for Martian locomotion

Blacksburg High School

Sponsor: Katharine Davis

SENIOR DIVISION

Animal Sciences – 100

First Place

103 Xavier Gitre

Parent-absent begging in Eastern Bluebirds: structural characteristics, environmental correlates, and parental responses

Blacksburg High School

Sponsor: Katharine Davis

Second Place

105 Liam Lauria-Leighton

Hermit Crab Claw Strength as Related to Body Weight

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

Third Place

101 Lilly Bowman

The Birth Weight of Lambs When The Ewe is Fed More Protein

Southwest Virginia Governor's School

Sponsor: Sherry Pugh

Honorable Mention

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

Behavioral and Social Sciences – 200

First Place

211 Lilyanna Simpkins

Evaluating the Emotional Response between Real and AI Images from Different Softwares

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Second Place

210 Aleah Palmer

Impact of Video Game Platform Types on Touch Based Reaction Times

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Third Place

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

Honorable Mention

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

Biochemistry + Biomedical and Health Sciences – 300

First Place

303 Joshua Osemobor

Analyzing the Effectiveness of Expansion Techniques of Meningeal Tissue

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

Second Place

304 Jacelyn Peak

From Powder to Power: Absorption Performance of Synthetic Hydrogels

Twin Valley High School

Sponsor: Nikki Peak

Third Place

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

Biomedical Engineering – 400

First Place

404 Joanna Jackson

Screwable Modular Components for the Pylon of Pediatric Leg Prosthetics

Southwest Virginia Governor's School

Sponsor: Matthew Frazier

Second Place

405 Ian Jora Macrea

The Effects of Electromechanical Uncouplers Blebbistatin and Bdm on Cardiomyocyte Conduction Velocity

Blacksburg High School

Sponsor: Katharine Davis

Third Place

403 Mirabella Garza

Influence of Infant car Seat Carrying Technique on Lower-limb Symmetry During Gait

Blacksburg High School

Sponsor: Katharine Davis

Cellular and Molecular Biology + Microbiology – 500

First Place

501 Saad Ali

Investigating Diurnal Oscillations of Cell Division Timing in Stentor coeruleus

Blacksburg High School

Sponsor: Katharine Davis

Second Place

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

Third Place

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

Chemistry – 600

First 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

Second Place

603 Avery Dhanraj

How Sulfur-Containing Products Affect the Tarnish Rate of Silver-Plated Jewelry

Southwest Virginia Governor's School

Sponsor: Jared Brown

Third Place

604 Mya Gustafson

The Effect of the Type of Egg on Soufflé Characteristics

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Earth and Environmental Sciences – 700

First Place

701 Lucas Holland

Modeling Spatial Temperature Structure Using Generalized Additive Models and Local Indicators of Spatial Association

Blacksburg High School

Sponsor: Katharine Davis

Second Place

702 Haley Stone

Thermal Dynamics of Caves: Influence of Single Versus Multiple Entrances

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

Third Place

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

Embedded Systems + Robotics and Intelligent Machines – 800

First Place

802 Ian Yu

Performance Analysis of a 5 Bar linkage entapod for Martian locomotion

Blacksburg High School

Sponsor: Katharine Davis

Second Place

801 Mateja Grove

Harmonic-Based Estimation of Coil Misalignment in Low-Power Wireless Power Transfer systems

Blacksburg High School

Sponsor: Katharine Davis

Third 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

**Energy: Sustainable Materials and Design +
Environmental Engineering – 900**

First Place

902 Eleanor Steele

Temperature-Dependent Filtration Efficiency of SMS Nano-biochar for Trimethoprim Removal

Southwest Virginia Governor's School

Second Place

901 Dahlia Obiedat

Evaluating Solar Powered Desalination on San Andres Island: A Systems-Level Feasibility Analysis

Blacksburg High School

Sponsor: Michele Sudweeks

Third Place

903 Tony Zhao

Open Circuit Potential of FUNaK salt in 0.5M Nitric Acid

Blacksburg High School

Sponsor: Katharine Davis

Engineering Technology: Statics and Dynamics – 1000

First 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

Second Place

1002 Mohamed Abdel Motaleb

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

Blacksburg High School

Sponsor: Katharine Davis

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

Materials Science – 1100

First 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

Second Place

1104 Addison Vest

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

Southwest Virginia Governor's School

Sponsor: Jared Brown

Third Place

1101 Michael Baron

The Effects of Assorted Fluids on Saxophone Reed Durability

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Mathematics – 1200

First 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

Second Place

1204 Addison Sheets

Determining Funding Strategies at Southwest Virginia Animal Shelters

Southwest Virginia Governor's School

Sponsor: Megan Arnold

Third Place

1201 Ellie Blankenship

The Probability of Two People Wearing the Same Color Shirt

Southwest Virginia Governor's School

Sponsor: Greg Riffe

Physics and Astronomy – 1300

First 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

Second Place

1303 Josiah Townsend

An Analysis of Neutrino Detectors in Nuclear Security

Blacksburg High School

Sponsor: Katharine Davis

Third Place

1301 Jay Hoerter

Observer Sensitivity to an Oscillating Diode

Southwest Virginia Governor's School

Sponsor: Jared Brown

Plant Sciences – 1400

First Place

1402 Saige Carico

Limosilactobacillus fermentum on Growth Enhancement of Pea Plants in Acidic Soil

Southwest Virginia Governor's School

Sponsor: Sherry Pugh

Second Place

1401 Leighann Bruce

Soil, Climate, and Carrot Quality: Comparing Agricultural Regions in Virginia

Southwest Virginia Governor's School

Sponsor: Jared Brown

Third 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

JUNIOR DIVISION

Animal Sciences + Biochemistry + Biomedical and Health Sciences + Microbiology – 2100

First Place

2102 Lyhout Veng

Determining Mass of Extracted DNA from Different Fruits

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Second Place

2103 Dylan Smith and Gracie Viers

Racing Heart

Twin Valley Elementary/Middle School

Sponsor: Rebecca Whited

Third Place

2101 Sora Powers

Bunny-Bonding: How does it help when training a rabbit?

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Chemistry + Earth and Environmental Sciences – 2200

First Place

2201 Mya Cecchini

Stain Pain Hurt Your Brain? The Ultimate Stain Remover Faceoff

Classical Conversations

Sponsor: Anna Cecchini

Second Place

2209 Emily Vasquez-Mayorga

Ingredient Interaction: What happens when an ingredient is left out?

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Third Place

2204 Jodi Keller

Which Liquid Will Freeze Faster?

Twin Valley Elementary/Middle School

Sponsor: Lori Ratliff

Engineering Technology: Statics and Dynamics + Materials Science + Physics and Astronomy – 2300

First Place

2301 Analiese Hess
The Great Weight Debate
Homeschool
Sponsor: Danielle Hess

Second Place

2302 Emily Layne
Hydraulics
Hurley Elementary/Middle School
Sponsor: Scott Embery

Plant Sciences – 2400

First Place

2402 Alexandre Domingues
The Effect of Various Fertilizers on Radish Growth
St. John Nuemann Academy
Sponsor: Suzanne Gilley

Second Place

2401 Becca Diaz
Carnation Information: which one dies first?
St. John Nuemann Academy
Sponsor: Suzanne Gilley