

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

WINNERS OF SPECIAL AWARDS

AMERICAN ASSOCIATION FOR UNIVERSITY WOMEN

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

**AMERICAN CHEMICAL SOCIETY
TENNESSEE VIRGINIA HIGHLANDS SECTION**

First Place

603 Avery Dhanraj

How Sulfur-Containing Products Affect the Tarnish Rate of Silver-Plated Jewelry
Southwest Virginia Governor's School
Sponsor: Jared Brown

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

Third Place

602 Lorelei Collier

Comparing Protein Content in Gluten-Free Flours
Southwest Virginia Governor's School
Sponsor: Jared Brown

**AMERICAN CHEMICAL SOCIETY
VIRGINIA BLUE RIDGE SECTION**

601 Olivia Close

Assessment of Polycyclic Aromatic Hydrocarbons (PAHs) in Honey Produced in Southwest Virginia Apiaries
Southwest Virginia Governor's School
Sponsor: Jared Brown

- 2201 Mya Cecchini**
Stain Pain Hurt Your Brain? The Ultimate Stain Remover Faceoff
Classical Conversations
Sponsor: Anna Cecchini

AMERICAN PSYCHOLOGICAL ASSOCIATION

- 211 Lilyanna Simpkins**
Evaluating the Emotional Response between Real and AI Images from Different Softwares
Southwest Virginia Governor's School
Sponsor: Megan Arnold

AMERICAN RED CROSS -- NEW RIVER VALLEY SCIENCE IN SERVICE TO OUR COMMUNITIES

- 404 Joanna Jackson**
Screwable Modular Components for the Pylon of Pediatric Leg Prosthetics
Southwest Virginia Governor's School
Sponsor: Matthew Frazier

AMERICAN SOCIETY OF BIOCHEMISTRY AND MOLECULAR BIOLOGY 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

AMERICAN SOCIETY OF MAMMALOGISTS

- 101 Lilly Bowman**
The Birth Weight of Lambs When The Ewe is Fed More Protein
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
- 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

2101 Sora Powers

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

St. John Nuemann Academy

Sponsor: Suzanne Gilley

ASSOCIATION FOR WOMEN GEOSCIENTISTS

702 Haley Stone

Thermal Dynamics of Caves: Influence of Single Versus Multiple Entrances

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

**BIOMEDICAL ENGINEERING AWARD
VIRGINIA TECH**

First Place

303 Joshua Osemobor

Analyzing the Effectiveness of Expansion Techniques of Meningeal Tissue

Southwest Virginia Governor's School

Sponsor: Rebecca Phillips

Second 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

Third Place

405 Ian Jora Macrea

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

Blacksburg High School

Sponsor: Katharine Davis

CITADEL SECURITIES INNOVATION PRIZE

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

- 2201 Mya Cecchini**
Stain Pain Hurt Your Brain? The Ultimate Stain Remover Faceoff
Classical Conversations
Sponsor: Anna Cecchini

GENIUS OLYMPIAD

- 901 Dahlia Obiedat**
Evaluating Solar Powered Desalination on San Andres Island: A Systems-Level Feasibility Analysis
Blacksburg High School
Sponsor: Michele Sudweeks
- 902 Eleanor Steele**
Temperature-Dependent Filtration Efficiency of SMS Nano-biochar for Trimethoprim Removal
Southwest Virginia Governor's School
Sponsor: Sherry Pugh

IOTA SIGMA PI AWARDS

- 603 Avery Dhanraj**
How Sulfur-Containing Products Affect the Tarnish Rate of Silver-Plated Jewelry
Southwest Virginia Governor's School
Sponsor: Jared Brown
- 2302 Emily Layne**
Hydraulics
Hurley Elementary/Middle School
Sponsor: Scott Embery

LEMELSON EARLY INVENTOR PRIZE

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

MOUNT TABOR RURITAN CLUB AWARDS

- 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

1401 Leighann Bruce
Soil, Climate, and Carrot Quality: Comparing Agricultural Regions in Virginia
Southwest Virginia Governor's School
Sponsor: Jared Brown

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

**NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
EARTH SYSTEM SCIENCE AWARD**

901 Dahlia Obiedat
Evaluating Solar Powered Desalination on San Andres Island: A Systems-Level Feasibility Analysis
Blacksburg High School
Sponsor: Michele Sudweeks

NATIONAL OCEANIC AND ATMOSPHERIC ASSOCIATION

702 Haley Stone
Thermal Dynamics of Caves: Influence of Single Versus Multiple Entrances
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips

NATIONAL WEATHER SERVICE 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

**OFFICE OF NAVAL RESEARCH
DISTINGUISHED ACHIEVEMENT AWARDS**

501 Saad Ali
Investigating Diurnal Oscillations of Cell Division Timing in Stentor coeruleus
Blacksburg High School
Sponsor: Katharine Davis

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

2201 Mya Cecchini
Stain Pain Hurt Your Brain? The Ultimate Stain Remover Faceoff
Classical Conversations
Sponsor: Anna Cecchini

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

REGENERON BIOMEDICAL SCIENCE AWARD

303 Joshua Osemobor
Analyzing the Effectiveness of Expansion Techniques of Meningeal Tissue
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips

RICOH CORPORATION SUSTAINABLE DEVELOPMENT AWARD

902 Eleanor Steele
Temperature-Dependent Filtration Efficiency of SMS Nano-biochar for Trimethoprim Removal
Southwest Virginia Governor's School
Sponsor: Sherry Pugh

SOCIETY FOR IN VITRO BIOLOGY AWARD

104 Madeline Jennings
The Laying Rate of Hens in Relation to Their Environment
Southwest Virginia Governor's School
Sponsor: Sherry Pugh

STOCKHOLM JUNIOR WATER PRIZE

First Place

902 Eleanor Steele

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

Southwest Virginia Governor's School

Sponsor: Sherry Pugh

Second Place

901 Dahlia Obiedat

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

Blacksburg High School

Sponsor: Michele Sudweeks

THERMO FISHER SCIENTIFIC JUNIOR INNOVATORS AWARD

2102 Lyhout Veng

Determining Mass of Extracted DNA from Different Fruits

St. John Nuemann Academy

Sponsor: Suzanne Gilley

2301 Analiese Hess

The Great Weight Debate

Homeschool

Sponsor: Danielle Hess

2402 Alexandre Domingues

The Effect of Various Fertilizers on Radish Growth

St. John Nuemann Academy

Sponsor: Suzanne Gilley

UNITED STATES AIR FORCE AWARD

211 Lilyanna Simpkins

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

Southwest Virginia Governor's School

Sponsor: Megan Arnold

801 Mateja Grove

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

Blacksburg High School

Sponsor: Katharine Davis

902 Eleanor Steele

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

Southwest Virginia Governor's School

Sponsor: Sherry Pugh

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

UNITED STATES METRIC ASSOCIATION

901 Dahlia Obiedat

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

Blacksburg High School

Sponsor: Michele Sudweeks

**EDWARD VIA COLLEGE OF OSTEOPATHIC MEDICINE
VIRGINIA PUBLIC HEALTH AND HEALTHCARE AWARD**

Junior Division

First Place

2103 Dylan Smith and Gracie Viers

Racing Heart

Twin Valley Elementary/Middle School

Sponsor: Rebecca Whited

Second Place

2401 Becca Diaz

Carnation Information: which one dies first?

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Third Place

2101 Sora Powers

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

St. John Nuemann Academy

Sponsor: Suzanne Gilley

Senior Division

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

- 401 Larah Clemons**
Supportive Capabilities of a Limited Motion Ankle Brace
Southwest Virginia Governor's School
Sponsor: Matthew Frazier

Third Place

- 402 Avi Gandhi**
Histotripsy for the Treatment of Cauliflower Ear: A Feasibility Study in Porcine Ears
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips

VIRGINIA LAKES AND WATERSHEDS

- 902 Eleanor Steele**
Temperature-Dependent Filtration Efficiency of SMS Nano-biochar for Trimethoprim Removal
Southwest Virginia Governor's School
Sponsor: Sherry Pugh

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

YALE SCIENCE AND ENGINEERING ASSOCIATION AWARD

- 404 Joanna Jackson**
Screwable Modular Components for the Pylon of Pediatric Leg Prosthetics
Southwest Virginia Governor's School
Sponsor: Matthew Frazier

EMORY AND HENRY SCHOLARSHIP

- 210 Aleah Palmer**
Impact of Video Game Platform Types on Touch Based Reaction Times
Southwest Virginia Governor's School
Sponsor: Megan Arnold

NEW RIVER COMMUNITY COLLEGE 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

RADFORD UNIVERSITY SCHOLARSHIP

- 401 Larah Clemons**
Supportive Capabilities of a Limited Motion Ankle Brace
Southwest Virginia Governor's School
Sponsor: Matthew Frazier

- 1204 Addison Sheets**
Determining Funding Strategies at Southwest Virginia Animal Shelters
Southwest Virginia Governor's School
Sponsor: Megan Arnold

WYTHEVILLE COMMUNITY COLLEGE SCHOLARSHIP

- 1204 Addison Sheets**
Determining Funding Strategies at Southwest Virginia Animal Shelters
Southwest Virginia Governor's School
Sponsor: Megan Arnold