

**26th Annual Blue Ridge Highlands
Regional Science Fair
March 3 - 4, 2017 – Radford University**

SPECIAL AWARDS

American Association of University Women Awards

- 403 Brittany Stiefel
An Investigation of Antibiotic Resistance Surrounding Veterinary Facilities
Southwest Virginia Governor's School
Sponsor: Krista Stith
- 1006 Stevie Lowe
Comparisons of Antibacterial Activity of Skin Secretions of a Frog and Salamanders
Southwest Virginia Governor's School
Sponsor: Krista Stith

American Chemical Society, Northeastern Tennessee Section Awards

First Place

- 503 Dawson Michel Little
The Effect of Pure Vegetable Oils on the Quality of Biodiesel Fuel
Southwest Virginia Governor's School
Sponsor: Jared Brown

Second Place

- 504 Leslie Martin
Effect of Cooking Temperature on Caloric Value
Southwest Virginia Governor's School
Sponsor: Jared Brown

Third Place

- 501 Cheyenne Bidlack
Identification of Metallic Ions in Various Tattoo Inks by Flame Test
Richlands High School
Sponsor: Tiffany Stillwell

American Chemical Society, Virginia Blue Ridge Section Award

- 503 Dawson Michel Little
The Effect of Pure Vegetable Oils on the Quality of Biodiesel Fuel
Southwest Virginia Governor's School
Sponsor: Jared Brown

American Meteorological Society Award

- 604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
Blacksburg High School
Sponsor: Ben Turner

American Psychological Association Award

- 203 Mary Brown
The Prototypes of Good and Bad in Children
Southwest Virginia Governor's School
Sponsor: Greg Riffe

American Red Cross Award

- 305 Saumya Sharman
Bioinformatics Analysis of Signaling Pathways in HER2+ Breast Cancer
Southwest Virginia Governor's School
Sponsor: Krista Stith

American Society of Mammalogists Awards

- 101 Kadie Hudson
Genetic variants present in Haematobia irritans among high carrier and low carrier dairy cattle
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
- 104 Senah Stephens
The Effect of Clipping Udder Hair on Somatic Cell Counts in Dairy Cattle
Southwest Virginia Governor's School
Sponsor: Krista Stith
- 1102 Chloe Vaughn
Dancers Defying Dizziness
Galax High School
Sponsor: Taylor Edwards

1103 Darrah Young and Macy McBride
Can You See Me Now?
Graham Middle School
Sponsor: Catherine Evans

Arizona State University Walton Sustainability Solutions Initiatives

604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
Blacksburg High School
Sponsor: Ben Turner

603 Olivia Smoot
Phytoremediation of Zinc Sulfate Using Hyperaccumulating Sunflowers in a Hydroponic System
Southwest Virginia Governor's School
Sponsor: Krista Stith

ASM Education Foundation Award

803 Kaelum Hasler
Post Consumer PET as Stock for Additive Manufacturing
Blacksburg High School
Sponsor: Katharine Davis

Association of Women Geoscientists Award

603 Olivia Smoot
Phytoremediation of Zinc Sulfate Using Hyperaccumulating Sunflowers in a Hydroponic System
Southwest Virginia Governor's School
Sponsor: Krista Stith

Biomedical Engineering Award – Virginia Tech

405 Lily Zhu and Aarati Pokharel
The Effects of Per2AS, a non-coding RNA gene, on Circadian Rhythmicity
Blacksburg High School
Sponsor: Katharine Davis

Broadcom Masters Awards

1102 Chloe Vaughn
Dancers Defying Dizziness
Galax High School
Sponsor: Taylor Edwards

1203 Kailynn Roberts
Brain and Memory Mnemonics
Galax High School
Sponsor: Kathryn Pakkidis

1405 Josh Tomiak
Warren Truss vs. Howe Truss – Which Bridge is Stronger?
Scott Memorial Middle School
Sponsor: April Schmidt

Genius Olympiad Awards

503 Dawson Michel Little
The Effect of Pure Vegetable Oils on the Quality of Biodiesel Fuel
Southwest Virginia Governor's School
Sponsor: Jared Brown

604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
Blacksburg High School
Sponsor: Ben Turner

Intel Excellence in Computer Science Award

702 Joseph Nielson
Integration of data science and Google Sheets in Lemonade Stand Point-of-Sale web app
Southwest Virginia Governor's School
Sponsor: Richard Fisher

I-SWEEEP Award

604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
Blacksburg High School
Sponsor: Ben Turner

Manufacturing Technology Center Award

803 Kaelum Hasler
Post Consumer PET as Stock for Additive Manufacturing
Blacksburg High School
Sponsor: Katharine Davis

Mount Tabor Ruritan Club Awards

- 1101 Hannah Hass
Come Chick This Out
Graham Middle School
Sponsor: Catherine Evans
- 1403 Bryce Havens
I'm Having a Septic Breakdown
Graham Middle School
Sponsor: Catherine Evans
- 805 Isaac Payne
Improved Aerodynamic Camper Device
Southwest Virginia Governor's School
Sponsor: Greg Riffe
- 1008 Tristan Conner Williams
A Quantitative Analysis of Fecal Coliforms of Washed Eggs
Southwest Virginia Governor's School
Sponsor: Krista Stith

Mu Alpha Theta Award

- 904 Alexander Tomiak
Determining the Accuracy of SIR Modeling to Predict Movie Popularity
Southwest Virginia Governor's School
Sponsor: Sherry Pugh

NASA Earth System Science Award

- 603 Olivia Smoot
Phytoremediation of Zinc Sulfate Using Hyperaccumulating Sunflowers in a Hydroponic System
Southwest Virginia Governor's School
Sponsor: Krista Stith

National Oceanic and Atmospheric Administration Award

- 105 Ty Stephenson
Effects of coal mining related contaminants on a mussel, *Lamsilis fasciola*
Blacksburg High School
Sponsor: Katharine Davis

Office of Naval Research Awards (U. S. Navy and U. S. Marine Corps)

- 1404 Nathan Sexton
How Hydraulics Works
Tazewell Middle School
Sponsor: Katherine Claytor
- 1405 Josh Tomiak
Warren Truss vs. Howe Truss – Which Bridge is Stronger?
Scott Memorial Middle School
Sponsor: April Schmidt
- 203 Mary Brown
The Prototypes of Good and Bad in Children
Southwest Virginia Governor's School
Sponsor: Greg Riffe
- 703 Patrick Thomas
Deciduous Tree Leaf Recognition with Artificial Neural Networks: Year 2
Southwest Virginia Governor's School
Sponsor: Richard Fisher

Radford University Sigma Xi Chapter Distinguished Award in Science

- 1302 Shraddha Patel
On Your Mark, Get Set, RUST!
Graham Middle School
Sponsor: Catherine Evans
- 105 Ty Stephenson
Effects of coal mining related contaminants on a mussel, Lamsilis fasciola
Blacksburg High School
Sponsor: Katharine Davis

Regeneron Intel Science Talent Search

- 503 Dawson Michel Little
The Effect of Pure Vegetable Oils on the Quality of Biodiesel Fuel
Southwest Virginia Governor's School
Sponsor: Jared Brown
- 604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
Blacksburg High School
Sponsor: Ben Turner

- 701 Collin Gray
The Effects of Different CPU Core Counts and Clock Speed on Performance
Southwest Virginia Governor's School
Sponsor: Richard Fisher
- 901 Samuel Coulson
The Economic Situation of Radford, Virginia and Its Connectedness to Blacksburg, Virginia
Southwest Virginia Governor's School
Sponsor: Greg Riffe
- 1005 Simonne Guenette
The Role of Trehalose in Heat Resistant Mycobacterium avium
Blacksburg High School
Sponsor: Katharine Davis

Ricoh Corporation Sustainable Development Award

- 503 Dawson Michel Little
The Effect of Pure Vegetable Oils on the Quality of Biodiesel Fuel
Southwest Virginia Governor's School
Sponsor: Jared Brown

Society for In Vitro Biology Award

- 1003 Madelena Eifert
The Effect of Cavitation Bubbles on Non-pathogenic E. coli on an Ice Cream Scoop
Southwest Virginia Governor's School
Sponsor: Krista Stith

U. S. Air Force Distinguished Achievement Awards

- 802 Owen Hall
Magnetic Torque Generator
Southwest Virginia Governor's School
Sponsor: Matthew Frazier
- 803 Kaelum Hasler
Post Consumer PET as Stock for Additive Manufacturing
Blacksburg High School
Sponsor: Katharine Davis

805 Isaac Payne
Improved Aerodynamic Camper Device
Southwest Virginia Governor's School
Sponsor: Greg Riffe

903 William Mahaney
Using Kenken Puzzles to Strengthen RSA Encryption
Southwest Virginia Governor's School
Sponsor: Greg Riffe

United States Metric Association Award

1003 Madelena Eifert
The Effect of Cavitation Bubbles on Non-pathogenic E. coli on an Ice Cream Scoop
Southwest Virginia Governor's School
Sponsor: Krista Stith

U. S. Stockholm Junior Water Prize

603 Olivia Smoot
Phytoremediation of Zinc Sulfate Using Hyperaccumulating Sunflowers in a Hydroponic System
Southwest Virginia Governor's School
Sponsor: Krista Stith

604 Grace Turner
The Effects of Acidified Simulated Seawater on Mollusk Shells
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Virginia Dental Awards

- 104 Senah Stephens
The Effect of Clipping Udder Hair on Somatic Cell Counts in Dairy Cattle
Southwest Virginia Governor's School
Sponsor: Krista Stith
- 203 Mary Brown
The Prototypes of Good and Bad in Children
Southwest Virginia Governor's School
Sponsor: Greg Riffe
- 302 Andrew Caudill
Constructing a Connectivity Map: Linking Genes Associated with Type 2 Diabetes Using Genome Databases
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
- 404 Audra White
Variation in Lung Volumes of Non-Smokers, Smokers of Conventional Cigarettes, and Smokers of Electronic Cigarettes
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
- 503 Dawson Michel Little
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Phytoremediation of Zinc Sulfate Using Hyperaccumulating Sunflowers in a Hydroponic System
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- 702 Joseph Nielson
Integration of data science and Google Sheets in Lemonade Stand Point-of-Sale web app
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Determining the Accuracy of SIR Modeling to Predict Movie Popularity
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Virginia Dental Grand Award

302 Andrew Caudill
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Southwest Virginia Governor's School
Sponsor: Rebecca Phillips

Virginia Lakes and Watersheds Association Award

105 Ty Stephenson
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Blacksburg High School
Sponsor: Katharine Davis

1403 Bryce Havens
I'm Having a Septic Breakdown
Graham Middle School
Sponsor: Catherine Evans

Yale Science and Engineering Association Award

802 Owen Hall
Magnetic Torque Generator
Southwest Virginia Governor's School
Sponsor: Matthew Frazier

Emory and Henry Scholarship

404 Audra White
Variation in Lung Volumes of Non-Smokers, Smokers of Conventional Cigarettes, and Smokers of Electronic Cigarettes
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips

New River Community College Scholarship

- 803 Kaelum Hasler
Post Consumer PET as Stock for Additive Manufacturing
Blacksburg High School
Sponsor: Katharine Davis

Wytheville Community College Scholarship

- 302 Andrew Caudill
Constructing a Connectivity Map: Linking Genes Associated with Type 2 Diabetes Using Genome Databases
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips