

**29th Annual Blue Ridge Highlands Regional Science Fair
March 6 - 7, 2020 – Radford University**

**VIRGINIA STATE SCIENCE AND ENGINEERING FAIR
DELEGATES**

- 208 Samuel Grove
Nicotine Usage Rates Amongst U.S. Sexual Minority Students
Blacksburg High School
Sponsor: Katharine Davis
- 215 Nadine Shannon
Is There an Association Between People with a Morning Versus Evening Chronotype and Variants of the HCRTR2 Gene?
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
- 218 Rosemary Wnorowski
Determining the Efficiency of the Container Deposit Laws
Southwest Virginia Governor's School
Sponsor: Greg Riffe
- 303 Haley Hansen
Assessing Compliance of Fourth and Fifth Grade Students with a National Backpack Weight Guideline
Southwest Virginia Governor's School
Sponsor: Heather Lowe
- 304 Kayla Horne
Commonalities in Craniosynostosis Patients
Southwest Virginia Governor's School
Sponsor: Sherry Pugh
- 403 Claire Morton
The Division Decision: The Cdc13 Protein and Cell Size Control
Blacksburg High School
Sponsor: Katharine Davis
- 502 Isabella Burgoyne
Using Cellulose Nanocrystals as a Filter for Methane and Nitrogen Dioxide
Southwest Virginia Governor's School
Sponsor: Jared Brown

- 601 Brandon Fan
An AI-based System for Early Detection of Natural Disaster and Incidents Using Open Data
Blacksburg High School
Sponsor: Katharine Davis
- 704 Virginia Worrell
Determining the Toxicological Effects of Polyurethane Foam and Complex Leachate on Artemia Nauplii
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips
- 803 Adam Downs
Analyzing the Relationship Between Brine Viscosity and Anti-Icing Viability Across Multiple Snow Cycles
Southwest Virginia Governor's School
Sponsor: Jared Brown
- 902 Kate Childers
The Application of Fiber Optic Multi-Core Shape Sensing Fibers on Flexible Models
Southwest Virginia Governor's School
Sponsor: Matthew Frazier
- 1001 Lauritz Cedric Means Christensen
The Quantification of Gerrymandering in Montgomery County: An Exploration of Cracking in Southwest Virginia
Blacksburg High School
Sponsor: Katharine Davis
- 1105 Vishvesha Sridhar
Identification of the Gradient Drift Instability in the Sub-auroral Polarization Stream
Blacksburg High School
Sponsor: Katharine Davis
- 1202 Cassady Marion
The Impact of Arbuscular Mycorrhizal Fungi on Marigold Development in Microplastic-Contaminated Soil
Southwest Virginia Governor's School
Sponsor: Rebecca Phillips