

2025 Science Fair Winners (Advancing to Regional Fair)

Middle School Division

Category: Animal Sciences/Biochemistry/Biomedical & Health Sciences / Microbiology

First Place:

The Effects of Different Intervals of Light on Bacillus subtilis

Students: Hudson Brendel and Jaxson Kuzmich

Sponsor: Brian Crockett

School: Glenvar Middle School

Second Place:

Does the Breed of Chicken Affect the Number of Eggs it Will Lay?

Student: Jack Swank

Sponsor: Lyndsey O'Brien

School: Hidden Valley Middle School

Third Place:

The Effect of Household Cleaner on Bacteria

Student: Nora Richardson

Sponsor: Lynn Furrow

School: Cave Spring Middle School

Category: Chemistry

First Place:

School Water: Just Add Chlorine?

Student: Brett Gardner

Sponsor: Alexis Parrish

School: William Byrd Middle School

Second Place:

The Effect of the pH of a Liquid on the Liquid's Surface Tension

Students: Jacob Meyer, Carson Lunn

Sponsor: Sandi Rhodes

School: Cave Spring Middle School

Third Place:

What is the Effect of Different Battery Brands on Battery Life?

Student: Isaac Boruchowitz

Sponsor: Buck Beatrous

School: Glenvar Middle School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Earth and Environmental Sciences

First Place:

Water Health and Purity Comparison of the Roanoke, James, and New Rivers

Students: Katherine Karolyi, Amelia Karolyi

Sponsor: Lyndsey O'Brien

School: Hidden Valley Middle School

Second Place:

The Effects of Different Water Treatment Methods/Filtration Systems When Tested on Water Nitrate Pollution

Student: Marygann Jenkins

Sponsor: Andrew Close

School: William Byrd Middle School

Third Place:

The Effect of Biodegradable Materials on Absorbing Oil from Water

Student: Mahima Sethumadhavan

Sponsor: Sandi Rhodes

School: Cave Spring Middle School

Category: Engineering Technology/Environmental Engineering/Systems Software

First Place:

Will a Computer System Recognize Colors?

Student: Gabrielle Claiborne

Sponsor: Karen Perry

School: Northside Middle School

Second Place:

From Dirty to Drinkable

Student: Marshall Webb

Sponsor: Camille Joslyn

School: Hidden Valley Middle School

Third Place:

What Structure Holds Up Best Against Winds from a Hurricane? The Effect of House Design on the Ability to Withstand Hurricanes

Student: Nicole Eggleston

Sponsor: Erin O'Donnell

School: William Byrd Middle School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Materials Science

First Place:

Water Damage Test

Students: Ezekiel Starkey and Colt Stewart

Sponsor: Buck Beatrous

School: Glenvar Middle School

Second Place:

Do I Really Need My Swim Cap?

Student: Jaylen Smith

Sponsor: Samantha Bright

School: Northside Middle School

Third Place:

Melt Away

Student: Cameron Kennedy

Sponsor: Alisa Goodwin

School: Northside Middle School

Category: Physics

First Place:

The Effect of Different Amperage Supplied to Electromagnets on the Maximum Speed of a Magnetically Levitated Top

Student: Colin Ray

Sponsor: Lynn Furrow

School: Cave Spring Middle School

Second Place:

The Effect of the Number of Stages on a Gauss Launcher on the Distance the Last Ball Travels Horizontally

Student: Atharva Sathe

Sponsor: Lynn Furrow

School: Cave Spring Middle School

Third Place:

Measure the Splatter! How Does Forensics Matter?

Student: Julia Sullivan

Sponsor: Ginger Davis

School: Hidden Valley Middle School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Plant Sciences

First Place:

Effects of Different Wavelengths of Light on Wheatgrass Germination

Student: Matthew Gard

Sponsor: Brian Crockett

School: Glenvar Middle School

Second Place:

The Effect of Amount of CO₂ on Height of Chive Plants

Students: Jude Hypes and Petrus (Derk) Potgeiter

Sponsor: Tamicka Bonnick

School: Cave Spring Middle School

Third Place:

How Different Minerals Affect Seed Germination

Students: Noah Stevens and Bryson Kuzmich

Sponsor: Brian Crockett

School: Glenvar Middle School

High School Division

Category: Animal Sciences/Behavior and Social Sciences

First Place:

The Effect of River Water on Danio rerio Eye Size and Expression of Estrogen-Responsive Gene

Student: Anvita Panchumarthy

Sponsor: Brandon Taylor

School: CSHS, Roanoke Valley Governor's School

Second Place:

An Analysis of Changes in Perceptions of Fears Over Time

Student: Nate Buck

Sponsor: Ryan Adams

School: William Byrd High School

Third Place:

Investigating the Relationship between Dopamine-Influencing activities and Mental Health

Student: Anna Carter

Sponsor: Melissa Carr

School: William Byrd High School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Biochemistry/Cellular and Molecular Biology/Chemistry

First Place:

The Effect of Naturally Occurring Antimicrobials on the Growth of Escherichia coli

Student: Braeden Booth

Sponsor: Melissa Carr

School: William Byrd High School

Second Place:

An Analysis of The Amount of Fat Extracted from Specific Foods Versus the Corresponding Healthy Counterparts

Student: Elena Mullen

Sponsor: Ryan Adams

School: William Byrd High School

Third Place:

The Effect of Adding Salt and Sugar on Freezing Point of Water

Student: Kyleigh Ginger, Noah Wheeler

Sponsor: Ashton Eubank

School: William Byrd High School

Category: Biomedical and Health Sciences

First Place:

Do Natural and Herbal Heartburn Treatments Work as Well as a Leading Brand of Over-the-Counter Antacids?

Student: Julia Carroll

Sponsor: Jennifer Crozier

School: Glenvar High School

Second Place:

The Effect of Years in Band on a Participants Hearing

Student: Sara Settle

Sponsor: Kristol Blankenship

School: Hidden Valley High School

Third Place:

The Effect of Types of Tylenol Placed in Acid

Student: Madison Knowles

Sponsor: Kristol Blankenship

School: Hidden Valley High School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Earth and Environmental Science

First Place:

The Inhibitory Effects of UV-C Light on the Growth of Botrytis cinerea

Student: Claire Ricketts

Sponsor: Joanne Villers

School: CSHS, Roanoke Valley Governor's School

Second Place:

The Effect of Increased Fertilizer on the Development of Striations in a Winogradsky Column

Student: Julia Ponder

Sponsor: Jennifer Crozier

School: Glenvar High School

Third Place:

The Impact of Microplastics on the Growth, Behavior/Activity, and Survival Rate of Brine Shrimp (*Artemia salina*)

Student: Olivia Long

Sponsor: Melissa Carr

School: William Byrd High School

Category: Energy: Sustainable Materials and Design/Mathematics

First Place:

The Amount of Electrical Energy Produced from Thermal Energy at Different Temperatures.

Student: Ethan Sutton

Sponsor: Melissa Carr

School: William Byrd High School

Second Place:

Possible Sustainable Future: Can a homemade battery be better than a store bought one?

Student: Trisha Mathur

Sponsor: Shannon Lewis

School: Hidden Valley High School

Third Place:

The Effect of Different Banking Methods and Firms on Financial Income

Student: Christopher Boyd

Sponsor: Ryan Adams

School: William Byrd High School

2025 Science Fair Winners (Advancing to Regional Fair)

Category: Engineering Technology/Robotics/Systems Software

First Place:

Advancing Coronary Artery Disease Risk Prediction using Machine Learning: A Meta-Ensemble Approach

Student: Aryan Madan

Sponsor: Tracy Jenkins

School: HVHS, Roanoke Valley Governor's School

Second Place:

Handwriting Robotic Arm 2.0

Student: Jeanne-Eugenie Picard

Sponsor: Drew Hurst

School: HVHS, Roanoke Valley Governor's School

Third Place:

Autonomous Following Box V2

Student: Alpinveer (Alpin) Singh

Sponsor: Drew Hurst

School: CSHS, Roanoke Valley Governor's School

Category: Materials Science

First Place:

The Effect of Temperature and Humidity on Various Musical Instruments' Timbre

Students: Josh Allen, Ryan McIntyre

Sponsor: Melissa Carr School:

William Byrd High School

Second Place:

The Effects of Different Amounts of Liquid-Powder Chalk on Peak Grip Force

Students: Eliana Guzman, Carter Graffeo

Sponsor: Karen Hicks

School: Glenvar High School

Third Place:

The Water Absorption of Pumice, Sandstone, and Granite

Students: Mallory Michalski, Keeli Emery, Adalie Mills

Sponsor: Ashton Eubank

School: William Byrd High School

Category: Microbiology

First Place:

2025 Science Fair Winners (Advancing to Regional Fair)

Developing and Testing a Coagulative Anti-microbial Sponge on Staphylococcus Epidermidis within a Simulated Wound Cavity

Student: Nafisah Izzat, Gabrielle Romeo

Sponsor: Brandon Taylor

School: CSHS, WBHS - Roanoke Valley Governor's School

Second Place:

The Effects of Peptide Nucleic Acids and Bromelain on the Inhibition of Biofilm in Staphylococcus Species

Student: Nicole Scarlatescu

Sponsor: Brandon Taylor

School: HVHS, Roanoke Valley Governor's School

Third Place:

Evaluating the Efficacy of Silver and Zinc Oxide Nanoparticles in Inhibiting Biofilm Formation and Bacterial Growth

Student: Hana Sageer

Sponsor: Steve Smith/Steve Villers

School: HVHS, Roanoke Valley Governor's School

Category: Physics

First Place:

The Effects of the Amount of Trusses on the Structural Integrity of a Warren Truss Bridge

Students: Colin Graffeo, Daniel Tozier

Sponsor: Jennifer Crozier

School: Glenvar High School

Second Place:

The Effect of Different Sized Secondary Syringes on Model Hydraulic Systems

Student: Aaron Start

Sponsor: Ashton Eubank

School: William Byrd High School

Third Place:

The Effect of Bat Composition on the Exit Velocity of a Baseball

Student: Hudson Cain

Sponsor: Ryan Adams

School: William Byrd High School

Category: Plant Sciences

2025 Science Fair Winners (Advancing to Regional Fair)

First Place:

Rooting for Positive Thinking: How Magnets Affect Root Growth

Student: Meera Raichura

Sponsor: Cindy Bohland

School: WBHS, Roanoke Valley Governor's School

Second Place:

The Effect of Mycorrhizal Fungi on Drought Tolerance of Mung Bean Plants

Student; Sophie Childers

Sponsor: Karen Hicks

School: Glenvar High School

Third Place:

The Effect of Pollution on Rhizobium leguminosarum Covered Chickpea Plant Nodules

Students: Nathan Thompson, Levi King

Sponsor: Jennifer Crozier

School: Glenvar High School