

Virginia Piedmont Regional Science Fair

Category Awards Ceremony

Animal Sciences

Junior Division

Honorable Mention

Morgan Hurst	JR-ANIM-007	Charlottesville Catholic School
Liliana Jones	JR-ANIM-007	Charlottesville Catholic School
Franklin Piedra	JR-ANIM-017	Community Christian Academy
Wren Keighley	JR-ANIM-022	North Branch School

Third Place

Noah Walker	JR-ANIM-024	Freedom Middle
-------------	-------------	----------------

Second Place

Signe Marsh	JR-ANIM-012	Joseph T. Henley Middle
-------------	-------------	-------------------------

First Place

Alayna Krumrie	JR-ANIM-005	Donald B. Dixon-Lyle R. Smith Middle
Madeleine Pollok	JR-ANIM-005	Donald B. Dixon-Lyle R. Smith Middle

Behavioral and Social Sciences

Junior Division

Honorable Mention

William Mathew	JR-BEHA-007	The Covenant School
Corinne Lee	JR-BEHA-014	The Covenant School
Abigail Podraza	JR-BEHA-018	Thornburg Middle

Third Place

Madeline Thomas	JR-BEHA-003	Donald B. Dixon-Lyle R. Smith Middle
-----------------	-------------	--------------------------------------

Second Place

Cate Bryce	JR-BEHA-016	The Covenant School
------------	-------------	---------------------

First Place

Katherine Smith	JR-BEHA-012	Charlottesville Catholic School
Emily Wells	JR-BEHA-012	Charlottesville Catholic School

Biochemistry, Cellular & Molecular Biology

Junior Division

Third Place

Tristan Subkanha	JR-BCMB-003	Post Oak Middle
------------------	-------------	-----------------

Second Place

Leasil Empie	JR-BCMB-001	Post Oak Middle
--------------	-------------	-----------------

First Place

Madeline Farber	JR-BCMB-009	Charlottesville Catholic School
-----------------	-------------	---------------------------------

Chemistry

Junior Division

Honorable Mention

Molly Ciesil	JR-CHEM-018	The Covenant School
Abigayle West	JR-CHEM-020	Freedom Middle
Muriel Kahrl	JR-CHEM-033	Tandem Friends School

Third Place

Jonathan Derby	JR-CHEM-003	Tandem Friends School
----------------	-------------	-----------------------

Second Place

Jackson Kulick	JR-CHEM-005	Piedmont Regional Home School
----------------	-------------	-------------------------------

First Place

Alex Bravo	JR-CHEM-009	Donald B. Dixon-Lyle R. Smith Middle
------------	-------------	--------------------------------------

Computer Science

Junior Division

Honorable Mention

Turi Gokturk	JR-COMP-004	The Covenant School
Olivia Lyon	JR-COMP-006	Freedom Middle
Isla Rolf	JR-COMP-014	Donald B. Dixon-Lyle R. Smith Middle

Third Place

James Armentani	JR-COMP-003	Post Oak Middle
-----------------	-------------	-----------------

Second Place

Ruud Steinberg	JR-COMP-005	Charlottesville Catholic School
----------------	-------------	---------------------------------

First Place

Riley Griffith	JR-COMP-002	Tandem Friends School
----------------	-------------	-----------------------

Energy and Transportation

Junior Division

Honorable Mention

Sattvic Anabathula	JR-ENTR-006	Joseph T. Henley Middle
--------------------	-------------	-------------------------

Third Place

Zachary Belford	JR-ENTR-001	Lakeside Middle School
-----------------	-------------	------------------------

Second Place

Ryland Thompson	JR-ENTR-004	The Covenant School
-----------------	-------------	---------------------

First Place

Keegan Mejias	JR-ENTR-003	Charlottesville Catholic School
---------------	-------------	---------------------------------

Engineering: Electrical and Mechanical

Junior Division

Honorable Mention

Elliot Belford	JR-EELM-001	Lakeside Middle School
Shana Herman	JR-EELM-012	Freedom Middle
Theo Vaman	JR-EELM-014	Lakeside Middle School

Third Place

Daniil Pestov	JR-EELM-011	Community Christian Academy
---------------	-------------	-----------------------------

Second Place

Zepherin Soika	JR-EELM-009	Charlottesville Catholic School
----------------	-------------	---------------------------------

First Place

Emmerson Ouellette	JR-EELM-006	Edward E. Drew Jr. Middle
Aksha Somu	JR-EELM-006	Edward E. Drew Jr. Middle

Engineering: Materials and Bioengineering

Junior Division

Honorable Mention

Miles Pendergrast	JR-EMBE-002	Donald B. Dixon-Lyle R. Smith Middle
Anna Taylor	JR-EMBE-008	Piedmont Regional Home School

Third Place

Ella Nicks	JR-EMBE-010	North Branch School
------------	-------------	---------------------

Second Place

Ellie Bruscia	JR-EMBE-005	Charlottesville Catholic School
---------------	-------------	---------------------------------

First Place

Ashlyn Blackburn	JR-EMBE-006	Charlottesville Catholic School
------------------	-------------	---------------------------------

Environmental, Earth & Planetary Sciences

Junior Division

Honorable Mention

Connor Woodle	JR-EEPS-014	The Covenant School
Alexandre Lombart	JR-EEPS-018	Charlottesville Catholic School
Wyatt King	JR-EEPS-021	Lakeside Middle School

Third Place

Robert Furr	JR-EEPS-017	H.H. Poole Middle
-------------	-------------	-------------------

Second Place

Abigail Urann	JR-EEPS-004	Donald B. Dixon-Lyle R. Smith Middle
---------------	-------------	--------------------------------------

First Place

Avery Royer	JR-EEPS-010	The Covenant School
-------------	-------------	---------------------

Mathematical Sciences

Junior Division

First Place

Andrew Goyne

JR-MATH-001

Charlottesville Catholic School

Medicine and Health Sciences

Junior Division

Honorable Mention

Katherine Albert	JR-MEDS-012	Charlottesville Catholic School
Whitney Waller	JR-MEDS-012	Charlottesville Catholic School
Austin Koshansky	JR-MEDS-014	Charlottesville Catholic School
Lubna Miakhel	JR-MEDS-030	Lakeside Middle School

Third Place

Ananya Singla	JR-MEDS-035	Lakeside Middle School
---------------	-------------	------------------------

Second Place

Phinehas McDermott	JR-MEDS-010	Piedmont Regional Home School
--------------------	-------------	-------------------------------

First Place

Everlyse Asiedu	JR-MEDS-019	Freedom Middle
-----------------	-------------	----------------

Microbiology

Junior Division

Honorable Mention

Martha Addai	JR-MICR-001	Floyd T. Binns Middle
Sophia Cobella	JR-MICR-001	Floyd T. Binns Middle
Reagan Burgess	JR-MICR-003	Floyd T. Binns Middle
Hailey Ketner	JR-MICR-007	Donald B. Dixon-Lyle R. Smith Middle

Third Place

Madeline Lazzara	JR-MICR-004	Charlottesville Catholic School
------------------	-------------	---------------------------------

Second Place

Kriti Bohara	JR-MICR-005	Lakeside Middle School
--------------	-------------	------------------------

First Place

Samuel Spencer	JR-MICR-006	Charlottesville Catholic School
----------------	-------------	---------------------------------

Physics and Astronomy

Junior Division

Honorable Mention

Garin Felini	JR-PHYS-003	Charlottesville Catholic School
Will Huffman	JR-PHYS-008	The Covenant School
Whit Bryant	JR-PHYS-010	The Covenant School

Third Place

Greyson Johnson	JR-PHYS-006	The Covenant School
-----------------	-------------	---------------------

Second Place

David Dickerson	JR-PHYS-009	The Covenant School
-----------------	-------------	---------------------

First Place

Ethan Russell	JR-PHYS-004	Charlottesville Catholic School
---------------	-------------	---------------------------------

Plant Sciences

Junior Division

Honorable Mention

Peyton Lessin	JR-PLNT-007	Post Oak Middle
Lily Paphitis	JR-PLNT-014	The Covenant School
Tillie Whalen	JR-PLNT-022	Piedmont Regional Home School

Third Place

Selah Balsavich	JR-PLNT-015	Piedmont Regional Home School
-----------------	-------------	-------------------------------

Second Place

Bristol Hux	JR-PLNT-012	Charlottesville Catholic School
-------------	-------------	---------------------------------

First Place

Giovanni Campos	JR-PLNT-004	Edward E. Drew Jr. Middle
Takoda Luedke	JR-PLNT-004	Edward E. Drew Jr. Middle

Virginia Piedmont Regional Science Fair

Category Awards Ceremony

Animal Sciences

Senior Division

Honorable Mention

Sai Niti Shroff	SR-ANIM-016	Mills E. Godwin High
Kristie Yates	SR-ANIM-018	Peninsula Catholic High School
Devansh Kumar	SR-ANIM-025	Maggie L. Walker Governor's School

Third Place

Dhruv Ghai	SR-ANIM-014	Mills E. Godwin High
------------	-------------	----------------------

Second Place

Priya Kumar	SR-ANIM-023	Maggie L. Walker Governor's School
-------------	-------------	------------------------------------

First Place

Sam Lloyd	SR-ANIM-001	Mountain Vista Governor's School
-----------	-------------	----------------------------------

Biochemistry, Cellular & Molecular Biology

Senior Division

Honorable Mention

Aryan Patil	SR-BCMB-006	Mills E. Godwin High
Vivien Verghese	SR-BCMB-008	Mills E. Godwin High
Kenn Wu	SR-BCMB-018	Mills E. Godwin High

Third Place

Deepanshi Kumar	SR-BCMB-007	Maggie L. Walker Governor's School
-----------------	-------------	------------------------------------

Second Place

Pranav Sundarrajan	SR-BCMB-012	Mills E. Godwin High
--------------------	-------------	----------------------

First Place

Neha Beeravalli	SR-BCMB-013	Mills E. Godwin High
-----------------	-------------	----------------------

Chemistry

Senior Division

Honorable Mention

Srivedha Veerapaneni	SR-CHEM-021	Mills E. Godwin High
Noreen Hai	SR-CHEM-022	Mills E. Godwin High
Ruben Ginsberg	SR-CHEM-030	Western Albemarle High

Third Place

John Dueck	SR-CHEM-001	Mountain Vista Governor's School
------------	-------------	----------------------------------

Second Place

Trinh Nguyen	SR-CHEM-031	Mills E. Godwin High
--------------	-------------	----------------------

First Place

Mia Heller	SR-CHEM-011	Mountain Vista Governor's School
------------	-------------	----------------------------------

Computer Science

Senior Division

Honorable Mention

Vivian Foutz	SR-COMP-009	Western Albemarle High
Ayush Panchal	SR-COMP-012	Cosby High
Naren Ponnusamy	SR-COMP-012	Cosby High
Pranav Vedula	SR-COMP-013	Colonial Forge High

Third Place

William Lin	SR-COMP-011	Piedmont Regional Home School
-------------	-------------	-------------------------------

Second Place

Zachary Schwehr	SR-COMP-008	Mills E. Godwin High
-----------------	-------------	----------------------

First Place

Ryan Karim	SR-COMP-007	Deep Run High
------------	-------------	---------------

Energy and Transportation

Senior Division

First Place

Eshaan Mital	SR-ENTR-005	Albemarle High
--------------	-------------	----------------

Engineering: Electrical and Mechanical

Senior Division

Honorable Mention

Lorraina Balsavich	SR-EELM-010	Piedmont Regional Home School
--------------------	-------------	-------------------------------

Third Place

Lilian Hui	SR-EELM-015	Albemarle High
------------	-------------	----------------

Second Place

Karan Nair	SR-EELM-013	Maggie L. Walker Governor's School
Prithvi Pullela	SR-EELM-013	Deep Run High
Toshan Vellampalli	SR-EELM-013	Henrico High

First Place

Micah Appiah	SR-EELM-005	Albemarle High
--------------	-------------	----------------

Engineering: Materials and Bioengineering

Senior Division

Honorable Mention

Onur Sogutlu	SR-EMBE-003	Mills E. Godwin High
Asher Keller	SR-EMBE-011	Albemarle High
Hadley Hughes	SR-EMBE-012	Albemarle High

Third Place

Ritvik Kancharla	SR-EMBE-014	Mills E. Godwin High
Aarush Rudraraju	SR-EMBE-014	Mills E. Godwin High

Second Place

Sanaya Bothra	SR-EMBE-007	Maggie L. Walker Governor's School
---------------	-------------	------------------------------------

First Place

Rebecca Fowler	SR-EMBE-001	Mountain Vista Governor's School
----------------	-------------	----------------------------------

Environmental, Earth & Planetary Sciences

Senior Division

Honorable Mention

Aditi Vasudev	SR-EEPS-012	Mills E. Godwin High
Mukund Marri	SR-EEPS-013	William Monroe High
Aayush Jindal	SR-EEPS-015	Mills E. Godwin High

Third Place

Ishaan Patankar	SR-EEPS-007	Maggie L. Walker Governor's School
-----------------	-------------	------------------------------------

Second Place

Finnliegh Renz	SR-EEPS-002	Wakefield School
----------------	-------------	------------------

First Place

Veronica Vitko	SR-EEPS-006	Albemarle High
----------------	-------------	----------------

Medicine and Health Sciences

Senior Division

Honorable Mention

Logan Pyle	SR-MEDS-017	Mills E. Godwin High
Arinan Johri	SR-MEDS-027	Maggie L. Walker Governor's School
Dharya Patel	SR-MEDS-028	Mills E. Godwin High

Third Place

Tanvi Nareddy	SR-MEDS-026	Mills E. Godwin High
---------------	-------------	----------------------

Second Place

Nikolai Bukin	SR-MEDS-023	Mills E. Godwin High
---------------	-------------	----------------------

First Place

Zunaira Khan	SR-MEDS-020	Mills E. Godwin High
--------------	-------------	----------------------

Microbiology

Senior Division

Honorable Mention

Lalantika Prabhanand	SR-MICR-012	Mills E. Godwin High
----------------------	-------------	----------------------

Dhruv Vijay	SR-MICR-013	Mills E. Godwin High
-------------	-------------	----------------------

Third Place

Sanvi Yalamanchili	SR-MICR-010	Mills E. Godwin High
--------------------	-------------	----------------------

Second Place

Arnav Shrestha	SR-MICR-014	Mills E. Godwin High
----------------	-------------	----------------------

Gurpaj Tur	SR-MICR-014	Mills E. Godwin High
------------	-------------	----------------------

First Place

Saranya Manikandan	SR-MICR-011	Mills E. Godwin High
--------------------	-------------	----------------------

Physics and Astronomy

Senior Division

First Place

Tom Cech	SR-PHYS-011	Deep Run High
----------	-------------	---------------

Plant Sciences

Senior Division

Honorable Mention

Ananya Sankepalli	SR-PLNT-013	Mills E. Godwin High
Deepika Alapilla	SR-PLNT-017	Mills E. Godwin High
Eesha Pellreddy	SR-PLNT-024	Mills E. Godwin High

Third Place

Samyuktha Lokesh	SR-PLNT-023	Mills E. Godwin High
------------------	-------------	----------------------

Second Place

Abdelrhman Salama	SR-PLNT-019	Mills E. Godwin High
-------------------	-------------	----------------------

First Place

Katelyn Luu	SR-PLNT-008	Cosby High
-------------	-------------	------------

Virginia Piedmont Regional Science Fair

American Psychological Association

Cate Bryce	How do screens affect memory?	The Covenant School
------------	-------------------------------	---------------------

Association for Women Geoscientists

Veronica Vitko	A Strategy for Flood Mitigation and Urban Resilience by Assessing the Effectiveness of Retention and Detention Ponds: A Case Study in Norfolk, VA	Albemarle High
----------------	---	----------------

Booz Allen Innovation Award

Giovanni Campos	Manure vs Compost: Which is best in a Hydroponic System?	Edward E. Drew Jr. Middle
Takoda Luedke	Manure vs Compost: Which is best in a Hydroponic System?	Edward E. Drew Jr. Middle

Booz Allen Rising Star

Eunjong Seo	The Relationship between Photosynthesis and Wavelength of Light	Lakeside Middle School
-------------	---	------------------------

Booz Allen Societal Impact Award

Madeline Farber	The Sunscreen Stress Test: UV Effects on Chemical vs. Mineral Protection	Charlottesville Catholic School
-----------------	--	---------------------------------

Create a Healthful World Award

Everlyse Asiedu	The Effect of the Ingredients in a Pimple Patch on a Pimple	Freedom Middle
-----------------	---	----------------

Datta Memorial Scholarship

Micah Appiah	Insights into a Novel Electrostatic Motor Design for Electric Vehicles and Other Applications	Albemarle High
--------------	---	----------------

Food Scientist Award

Amelia Price	What amount of baking soda makes the perfect fluffy cookies?	H.H. Poole Middle
--------------	--	-------------------

Household Scientist Award

Emma Murphy	What is the Most Effective Cleaning Product?	North Branch School
-------------	--	---------------------

Interdisciplinary Scientist Award

Virginia Piedmont Regional Science Fair

John Kerrigan

Rust to Dust

Charlottesville Catholic School

ISEF Grand Award Runner Up

Rebecca Fowler
Veronica Vitko

Optimizing Biochar for Durability in Concrete
A Strategy for Flood Mitigation and Urban Resilience by
Assessing the Effectiveness of Retention and Detention
Ponds: A Case Study in Norfolk, VA

Mountain Vista Governor's School
Albemarle High

ISEF Grand Award Winner

Mia Heller

Micro-Magnetism: Using an Oil-Based Ferrofluid to
Remove Microplastics from Drinking Water

Mountain Vista Governor's School

Micah Appiah

Insights into a Novel Electrostatic Motor Design for
Electric Vehicles and Other Applications

Albemarle High

Lemelson Early Inventor Prize

Zepherin Soika

Got Signal?: How Does the Size of a Parabolic Antenna
Effect the Signal to Noise Ratio?

Charlottesville Catholic School

NASA Earth System Science Award

Mukund Marri

Real-time Air Quality Monitoring using IoT

William Monroe High

National Ground Intelligence Center Award

Ananya Singla
Micah Appiah

Crack the Case; Can AI Detect Rib Fractures?
Insights into a Novel Electrostatic Motor Design for
Electric Vehicles and Other Applications

Lakeside Middle School
Albemarle High

Shaankari Ravulaparthi

A Novel Comprehensive Evaluation of Blood Thinners:
Alternative Non-Cardioembolic Stroke Therapy to
Minimize Gastrointestinal Bleeding

Mills E. Godwin High

Keith Davies

How 6th Grade Students React to Different Scam and
Virus Strategies On School Computers

Tandem Friends School

Garin Felini

Need A Lift?, Investigating Aircraft Lift with Weight Based
Measurement

Charlottesville Catholic School

Zepherin Soika

Got Signal?: How Does the Size of a Parabolic Antenna
Effect the Signal to Noise Ratio?

Charlottesville Catholic School

Ellie Bruscia

Stable Ground: Understanding the Link Between Footing
Friction and Horse performance

Charlottesville Catholic School

Sanaya Bothra

Measuring Traumatic Brain Injury Impacts in a
Piezoelectric and Anatomically Accurate Rat Brain
Phantom

Maggie L. Walker Governor's School

Ritvik Kancharla

A Novel Affordable Intelligent Self-Driving Robotic Cane
for the Blind

Mills E. Godwin High

Aarush Rudraraju

A Novel Affordable Intelligent Self-Driving Robotic Cane
for the Blind

Mills E. Godwin High

Hadley Hughes
Charlie Flewelling

Graphene: A sustainable solution for energy storage.
How 6th Grade Students React to Different Scam and
Virus Strategies On School Computers

Albemarle High
Tandem Friends School

Virginia Piedmont Regional Science Fair

Next Engineer Award

Greyson Johnson	Does temperature affect golf ball flight	The Covenant School
-----------------	--	---------------------

Next Thomas Edison Award

Shana Herman	Faraday's Law	Freedom Middle
--------------	---------------	----------------

North Fork Innovation Award

Mia Heller	Micro-Magnetism: Using an Oil-Based Ferrofluid to Remove Microplastics from Drinking Water	Mountain Vista Governor's School
Micah Appiah	Insights into a Novel Electrostatic Motor Design for Electric Vehicles and Other Applications	Albemarle High

Office of Naval Research

Micah Appiah	Insights into a Novel Electrostatic Motor Design for Electric Vehicles and Other Applications	Albemarle High
Mukund Marri	Real-time Air Quality Monitoring using IoT	William Monroe High
Aayush Jindal	The Effect of Ferrofluid on Spilled Oil Extraction From Seawater	Mills E. Godwin High

Promising Environmentalist Award

Alexandre Lombart	Filtering the Flow: testing the different trash filtration mechanisms for rivers	Charlottesville Catholic School
-------------------	--	---------------------------------

Regeneron Biomedical Science Award

Deepanshi Kumar	Investigating the Overlap Between Alcohol Response Genes and Behavioral State Genes in C.elegans Using CRISPR-Cas9 Gene Editing and Locomotion Assays	Maggie L. Walker Governor's School
-----------------	---	------------------------------------

Ricoh USA, Inc.

Alexandre Lombart	Filtering the Flow: testing the different trash filtration mechanisms for rivers	Charlottesville Catholic School
-------------------	--	---------------------------------

Serving Society Through Science

Deepanshi Kumar	Investigating the Overlap Between Alcohol Response Genes and Behavioral State Genes in C.elegans Using CRISPR-Cas9 Gene Editing and Locomotion Assays	Maggie L. Walker Governor's School
Zepherin Soika	Got Signal?: How Does the Size of a Parabolic Antenna Effect the Signal to Noise Ratio?	Charlottesville Catholic School
Arinan Johri	Using SGLT2 Inhibitor Dapagliflozin to Treat Cisplatin-Induced Nephrotoxicity and Kidney Injury in Mice Models	Maggie L. Walker Governor's School
Theo Vaman	Gear Ratios	Lakeside Middle School

Virginia Piedmont Regional Science Fair

Social Science Award

Emily Wells	Put your phone down and eat!	Charlottesville Catholic School
Katherine Smith	Put your phone down and eat!	Charlottesville Catholic School

Society for In Vitro Biology

Deepanshi Kumar	Investigating the Overlap Between Alcohol Response Genes and Behavioral State Genes in C.elegans Using CRISPR-Cas9 Gene Editing and Locomotion Assays	Maggie L. Walker Governor's School
-----------------	---	------------------------------------

Taking the Pulse of the Planet (NOAA)

Finnliegh Renz	The Effects of Microplastics on Biologically Generated Turbulence in Oceans	Wakefield School
----------------	---	------------------

U.S. Metric Association

Micah Appiah	Insights into a Novel Electrostatic Motor Design for Electric Vehicles and Other Applications	Albemarle High
--------------	---	----------------

United States Air Force

Keegan Mejias	Balancing Flight	Charlottesville Catholic School
Zepherin Soika	Got Signal?: How Does the Size of a Parabolic Antenna Effect the Signal to Noise Ratio?	Charlottesville Catholic School
Daniil Pestov	Slide Along Now	Community Christian Academy
Diyaa Kirubaharan	The Effect of Ayurvedic Treatments on Cell Regeneration	Mills E. Godwin High

Virginia Lakes & Watersheds Award

Veronica Vitko	A Strategy for Flood Mitigation and Urban Resilience by Assessing the Effectiveness of Retention and Detention Ponds: A Case Study in Norfolk, VA	Albemarle High
Alexandre Lombart	Filtering the Flow: testing the different trash filtration mechanisms for rivers	Charlottesville Catholic School

Why Didn't I Think of That? Award

Declan Ossont	Determining the Ideal Amount of Quantum Dot Film Layered Over a LED Grow Light for Optimal Plant Growth	Donald B. Dixon-Lyle R. Smith Middle
---------------	---	--------------------------------------

Yale Science and Engineering Association

William Lin	Training an Optical Proximity Correction Model Using Conditional Generative Adversarial Networks (CGANs) for Semiconductor Lithography	Piedmont Regional Home School
-------------	--	-------------------------------