

Special Awards

Albemarle Amateur Radio Club Award (#1) - Certificate and book.

Sponsored by: Albemarle Amateur Radio Club

S1202 - Environmental EMR Measurement and Shielding Phone Pocket Design

Hyun jee Lim

Teacher: Jongbin Lee

Professional Research Academy for Young Scientists, Independent/Private

Albemarle Amateur Radio Club Award(#2) - Certificate and book.

Sponsored by: Albemarle Amateur Radio Club

J0606 - WiFi Enhancers

Priya Singh

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Change the World Award - \$200, certificate, letter

Sponsored by: Amber Ulbrich

S1702 - Drought Resurrection: A novel method to induce drought resistance in plants

Ashwin Swaminathan

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

American Meteorological Society Award #1 - Certificate

Sponsored by: American Meteorological Society

S0702 - The Effect of Sine Wave Frequencies on Vortex Disruption: A Step to Ending Tornado Destruction

Leia Otterstatter

Teacher: Donald Briggs

Colonial Forge High School, Stafford County

American Meteorological Society Award #2 - Certificate

Sponsored by: American Meteorological Society

S0701 - Mining in Microgravity: The extraction of stellar material through high-impact fracturing

Adam Pratte

Teacher: Michele Egan

Colonial Forge High School, Stafford County

American Psychological Association Award - Certificate

Sponsored by: American Psychological Association

J0217 - Listen Up! Read This!

Mira Dover, Emma Reese

Teacher: Suzanne Wilson

Dixon-Smith Middle School, Stafford County

A S U Walton Sustainability Award (#1) - Certificate and chance to win trip to Sustainability Solutions Festival

Sponsored by: Arizona State University - Rob & Melani Walton Sustainability Solutions Initiatives
S1102 - Innovative and Industrial Usage of Invasive Plants

Sophie Heny
Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

A S U Walton Sustainability Award (#2) - Certificate and chance to win trip to Sustainability Solutions Festival
Sponsored by: Arizona State University - Rob & Melani Walton Sustainability Solutions Initiatives

S1103 - Urban Ecosystem Redesign: The New New York

Sam Rimm-kaufman
Teacher: Matt Shields
Charlottesville High School, Charlottesville City

A S M Material Education Foundation Award - Certificate & Medallion
Sponsored by: ASM Material Education Foundation

J0821 - The Effect of the Type of Metal on the Rate of Corrosion

Mina Dipaula
Teacher: Suzanne Wilson
Dixon-Smith Middle School, Stafford County

Association for Women Geoscientists Award - Certificate and Acceptance Form
Sponsored by: Association for Women Geoscientists

S0702 - The Effect of Sine Wave Frequencies on Vortex Disruption: A Step to Ending Tornado Destruction

Leia Otterstatter
Teacher: Donald Briggs
Colonial Forge High School, Stafford County

Battelle Innovation Award - \$500 & Plaque
Sponsored by: Battelle Memorial Institute

S0601 - An Improved Approach to Traditional RSA Encryption

Ryan Figler, Gabriel Haskins
Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

Booz Allen Hamilton - Trophy & \$300
Sponsored by: Booz Allen Hamilton

S1702 - Drought Resurrection: A novel method to induce drought resistance in plants

Ashwin Swaminathan
Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

Broadcom MASTERS (J01) - Certificate & Entry Booklet
Sponsored by: Broadcom MASTERS

J0111 - Exploring Bioluminescence in Dinoflagellates

Haley Minnery
Teacher: Katie Hawkins
Stafford Middle School, Stafford County

Broadcom MASTERS (J02) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0228 - The Effects of Color on Peripheral Vision

Jenna Pearson

Teacher: Michele Egan

Poole Middle School, Stafford County

Broadcom MASTERS (J03) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0307 - Garbage Energy

Annamarita Sofis

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Broadcom MASTERS (J05) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0502 - Can You Feel the Heat?

Sydney Wynn

Teacher: Dara Carter

Locust Grove Middle School, Orange County

Broadcom MASTERS (J06) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0913 - Life Sized 3D Printed Humanoid, Here to Serve!

Sam Rhoades

Teacher: Brian Rhoades

Home School, Home School

Broadcom MASTERS (J07) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0702 - The Effect Of Wind From A Tornado Inside An Overpass

Megan Robinson

Teacher: Gregory Marsh, Linda Lapp

Freedom Middle School, Spotsylvania County

Broadcom MASTERS (J08) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0812 - Mind Controlled Prosthetic Finger

Megan Humphrey

Teacher: Diana McCullough

Sutherland Middle School, Albemarle County

Broadcom MASTERS (J09) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J0907 - How Different Trusses Affect a Bridges Durabilty

Heather Wall, Artina Li

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Broadcom MASTERS (J10) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1021 - The Solar Tracker

Dhara Liyanage

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Broadcom MASTERS (J11) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1116 - Water Filtration/Purification

Krishan Perumal

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Broadcom MASTERS (J12) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1206 - My Local Stream Health

Benjamin Van rooy

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Broadcom MASTERS (J13) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1303 - Magnus Effect

Kaitlyn Fulmore

Teacher: Susan Easter

Gayle Middle School, Stafford County

Broadcom MASTERS (J14) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1404 - Do Hot Tubs Truly Relax You?

Olivia Batt, Julianne Warren

Teacher: Michele Egan

Poole Middle School, Stafford County

Broadcom MASTERS (J15) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1502 - Effectiveness of Glycyrrhiza Glabra as an Antibacterial Agent

Aditi Prakash

Teacher: Teresa Goodin

Henley Middle School, Albemarle County

Broadcom MASTERS (J16) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1628 - ZIP VROOM ZOOM The Effect of Different Surfaces on Rollerblades

Miriam Gildea

Teacher: Sarah Green, Gretchen Feury

The Covenant School, Independent/Private

Broadcom MASTERS (J17) - Certificate & entry booklet.

Sponsored by: Broadcom MASTERS

J1714 - Will it Grow?

Michael Foley

Teacher: Rebecca Musso

Stafford Middle School, Stafford County

Charlottesville Astronomical Society Award (Junior) - Certificate & a custom built Dobsonian telescope and the book "Turn left at Orion."

Sponsored by: Charlottesville Astronomical Society

J1607 - Heating Mars

Anika Bronson, Sydney Barth

Teacher: Michele Egan

Poole Middle School, Stafford County

Charlottesville Astronomical Society Award (Senior) - Certificate & a custom built Dobsonian telescope and the book "Turn left at Orion."

Sponsored by: Charlottesville Astronomical Society

S0701 - Mining in Microgravity: The extraction of stellar material through high-impact fracturing

Adam Pratte

Teacher: Michele Egan

Colonial Forge High School, Stafford County

Intel Excellence in Computer Science Award - Certificate & \$200

Sponsored by: Intel

S0601 - An Improved Approach to Traditional RSA Encryption

Ryan Figler, Gabriel Haskins

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

International Council on Systems Engineering Award (I N C O S E) - First Place - \$100 & certificate

Sponsored by: International Council on Systems Engineering

S0904 - The Design of a Versatile Ultralow Field MRI Machine

Ishpreet Singh, Ryan Scholes, Sander Abraham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

International Council on Systems Engineering Award (I N C O S E) - Second Place - \$75 & certificate

Sponsored by: International Council on Systems Engineering

S0902 - Automated Awakening Using Vibrations Based on Heartbeat Fluctuations

William Harris

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

International Council on Systems Engineering Award (I N C O S E) - Third Place - \$50 & certificate

Sponsored by: International Council on Systems Engineering

S0903 - Developing an Alarm System to Protect Infants from Heat Related Car Deaths

Ally Johnson, Joseph Balaban

Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

ISWEEEP Special Award (#1) - Certificate & entry packet.

ISWEEEP provides hotel, breakfasts, some lunches, local transportation, and org fees. Does not include travel to the event or dinners.

Sponsored by: International Sustainable World Energy Engineering Environment Project Olympiad (ISWEEEP)

S1002 - Prototyping a Solar Sidewalk System

Nicolas Gutkowski, Saqib Rizvi

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Mu Alpha Theta Award - Certificate and acceptance form

Sponsored by: Mu Alpha Theta, the National High School and Two-Year College Mathematics Honor Society

S1301 - Fractal Dimension and Rivers in Virginia

Evangeline Sackett

Teacher: Jeremy Dove

Monticello High School, Albemarle County

NASA Earth System Science Award - Certificate

Sponsored by: NASA

J1607 - Heating Mars

Anika Bronson, Sydney Barth

Teacher: Michele Egan

Poole Middle School, Stafford County

National Ground Intelligence Center Best of Show Award - Certificate and medallion.

Sponsored by: National Ground Intelligence Center

S0904 - The Design of a Versatile Ultralow Field MRI Machine

Ishpreet Singh, Ryan Scholes, Sander Abraham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

National Ground Intelligence Center Best of Show Award - Junior - Certificate and medallion.

Sponsored by: National Ground Intelligence Center

J0913 - Life Sized 3D Printed Humanoid, Here to Serve!

Sam Rhoades

Teacher: Brian Rhoades

Home School, Home School

National Ground Intelligence Center Engineering Award (Junior 1) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

J0913 - Life Sized 3D Printed Humanoid, Here to Serve!

Sam Rhoades

Teacher: Brian Rhoades

Home School, Home School

National Ground Intelligence Center Engineering Award (Senior 2) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

S0904 - The Design of a Versatile Ultralow Field MRI Machine

Ishpreet Singh, Ryan Scholes, Sander Abraham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

National Ground Intelligence Center Environmental Sciences Award (Senior 1) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

S1702 - Drought Resurrection: A novel method to induce drought resistance in plants

Ashwin Swaminathan

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

National Ground Intelligence Center Mathematics and Computer Sciences Award (Senior 1) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

S1302 - Using Big Data Mining Procedures to Build General Linear Logistic Models of the Inexplicable: Can Financial Market Crashes be Predicted?

Elizabeth Kromkowski

Teacher: Charles Kromkowski

Charlottesville High School, Charlottesville City

National Ground Intelligence Center Physical Sciences Award (Junior 1) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

J1626 - Wrecking Balls and Block Walls

Matthew Knowles

Teacher: Chris Hall

The Covenant School, Independent/Private

National Ground Intelligence Center Physical Sciences Award (Junior 2) - Certificate and notebook.

Sponsored by: National Ground Intelligence Center

J0516 - Resolution To Rust

Alexis Snively

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Office of Naval Research Naval Science Award (Junior 1) - Medallion, certificate

Sponsored by: Naval Science Award Program

J0516 - Resolution To Rust

Alexis Snively

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Office of Naval Research Naval Science Award (Junior 2) - Medallion, certificate

Sponsored by: Naval Science Award Program

J1021 - The Solar Tracker

Dhara Liyanage

Teacher: Robert Munsey
Sutherland Middle School, Albemarle County

Office of Naval Research Naval Science Award (Junior 3) - Medallion, certificate
Sponsored by: Naval Science Award Program

J0812 - Mind Controlled Prosthetic Finger

Megan Humphrey
Teacher: Diana McCullough
Sutherland Middle School, Albemarle County

Office of Naval Research Naval Science Award (Junior 4) - Medallion, certificate
Sponsored by: Naval Science Award Program

J0917 - Rapid Fire: Optimizing Rail Gun Performance with Capacitors

Hunter Yates
Teacher: Steven Yates
Charlottesville Catholic School, Independent/Private

Office of Naval Research Naval Science Award (Junior 5) - Medallion, certificate
Sponsored by: Naval Science Award Program

J1012 - propeller positions, do they matter?

Beverley Arbogast
Teacher: Sheri Sanders
King George Middle School, King George County

Office of Naval Research Naval Science Award (Senior 1) - Medallion, certificate, \$50
Sponsored by: Naval Science Award Program

S0302 - Production of Hydrogen by Green Algae

Jay Rothenberger
Teacher: Carol Stutzman
Western Albermarle High School, Albemarle County

Office of Naval Research Naval Science Award (Senior 2) - Medallion, certificate, \$50
Sponsored by: Naval Science Award Program

S1102 - Innovative and Industrial Usage of Invasive Plants

Sophie Heny
Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

Office of Naval Research Naval Science Award (Senior 3) - Medallion, certificate, \$50
Sponsored by: Naval Science Award Program

S0101 - Animals Sensing Earthquakes

Kellen Egan
Teacher: Michele Egan
North Stafford High School, Stafford County

RICOH Sustainable Development Award - Certificate
Sponsored by: Ricoh Americas Corporation

J1102 - Can Greywater Save or Starve Plants?

Susannah Carter

Teacher: Sarah Green

The Covenant School, Independent/Private

Force of Technology Award - Junior Division - Certificate, \$100

Sponsored by: Tech Dynamism

J0913 - Life Sized 3D Printed Humanoid, Here to Serve!

Sam Rhoades

Teacher: Brian Rhoades

Home School, Home School

Force of Technology Award - Senior Division - Certificate, \$100

Sponsored by: Tech Dynamism

S0904 - The Design of a Versatile Ultralow Field MRI Machine

Ishpreet Singh, Ryan Scholes, Sander Abraham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

U. S. Metric Award - Certificate

Sponsored by: U.S. Metric Association

J0917 - Rapid Fire: Optimizing Rail Gun Performance with Capacitors

Hunter Yates

Teacher: Steven Yates

Charlottesville Catholic School, Independent/Private

Air Force Award (Senior 1) - Backpack, computer accessories kit, and Certificate

Sponsored by: United States Air Force

S0702 - The Effect of Sine Wave Frequencies on Vortex Disruption: A Step to Ending Tornado Destruction

Leia Otterstatter

Teacher: Donald Briggs

Colonial Forge High School, Stafford County

Air Force Award (Senior 2) - Backpack, computer accessories kit, and Certificate

Sponsored by: United States Air Force

S0401 - CRISPR-Cas9 Precise Genome Engineering in Stem Cells: Xirp2 Knockout and Ren1 Knock-In for the Development of Hearing Loss and Kidney Disease Models

Lillian Xu

Teacher: Carol Stutzman

Western Albermarle High School, Albemarle County

Air Force Award (Senior 3) - Backpack, computer accessories kit, and Certificate

Sponsored by: United States Air Force

S1401 - Elite Swimmers Experience Changes in Lung Function During Training

Hannah Pajewski

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Air Force Award (Senior 4) - Backpack, computer accessories kit, and Certificate

Sponsored by: United States Air Force

S1202 - Environmental EMR Measurement and Shielding Phone Pocket Design

Hyun jee Lim

Teacher: Jongbin Lee

Professional Research Academy for Young Scientists, Independent/Private

Taking the Pulse of the Planet Award (NOAA) - Certificate & Medallion

Sponsored by: United States Department of Commerce, Office of the Under Secretary for Oceans and Atmosphere

S0702 - The Effect of Sine Wave Frequencies on Vortex Disruption: A Step to Ending Tornado Destruction

Leia Otterstatter

Teacher: Donald Briggs

Colonial Forge High School, Stafford County

Virginia Dental Association (S01) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S0102 - Can Crickets regulate their own eating?

Kierstyn Zimmerman

Teacher: Jeremy Dove

Monticello High School, Albemarle County

Virginia Dental Association (S02) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S0201 - Analyzing the Effect of Music on Focus

Alexander Monaco, Michael Levit

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Virginia Dental Association (S03) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S0302 - Production of Hydrogen by Green Algae

Jay Rothenberger

Teacher: Carol Stutzman

Western Albermarle High School, Albemarle County

Virginia Dental Association (S05) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S0501 - Corrosion of Brass Instruments by Acidic Beverages

Renee Mcgee

Teacher: Ashley Johnson

Mountain View High School, Stafford County

Virginia Dental Association (S14) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S1403 - Quantifying Longevity increases from partial vascular occlusion(PVO)

Clark Benham

Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

Virginia Dental Association (S15) - Certificate, career information, ADA Journal Reprint.

Sponsored by: Virginia Dental Association

S1502 - Changes in strawberry root bacteria over a season of growth

Liam Godbold

Teacher: Gene Godbold

Home School, Home School

Virginia Lakes & Watersheds Award (Junior) - \$50 Target Gift Card (\$30 for team members)

Sponsored by: Virginia Lakes and Watersheds Association

J1206 - My Local Stream Health

Benjamin Van rooy

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Create a Healthful World Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J1410 - Gas-ology

Samantha Greer

Teacher: Julie Phegley, Carol Korth

A. G. Wright Middle School, Stafford County

Food Scientist Award (Nutrition Award) - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J1702 - Bean Seeds

Danica Brown

Teacher: Dara Carter

Locust Grove Middle School, Orange County

Household Scientist Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J0309 - Honey as a Food Preservative

Emma Birkitt

Teacher: Sheri Sanders

King George Middle School, King George County

Hybrid/Interdisciplinary Scientist Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J0224 - The Effect of First Impressions

Alexis Pugh

Teacher: Linda Lapp

Freedom Middle School, Spotsylvania County

Next Engineer Award - Certificate

Sponsored by: Virginia Piedmont Regional Science Fair

J0902 - Bridges of Strength

Taylor Collins
Teacher: Jaime Henning
Chancellor Middle School, Spotsylvania County

Next Thomas Edison Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J0905 - electromagnetic projectile

Kelsey Skees
Teacher: Courtney Quail
Thompson Middle School, Stafford County

Promising/Future Environmentalist Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J1114 - The Effect of the Type of Pesticides on the Health of Venus Flytraps

Susan Webb
Teacher: Suzanne Wilson
Dixon-Smith Middle School, Stafford County

Social Science Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J0215 - Hidden Advertisements

Evelyn Tse
Teacher: Suzanne Wilson
Dixon-Smith Middle School, Stafford County

Why Didn't I Think of This Award - Certificate.

Sponsored by: Virginia Piedmont Regional Science Fair

J0205 - Children's Response to Reward and Discipline

Rachel Ivy
Teacher: Ashley Martin
Ni River Middle School, Spotsylvania County

Stockholm Junior Water Prize #1 - Stockholm Junior Water Prize; Certificate and advancement to State/Stockholm competition

Sponsored by: Water Environment Federation

S1201 - Creating a Water Purity Indicator

Annaliese Schauer, Lindsay Miller
Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

Stockholm Junior Water Prize #2 - Stockholm Junior Water Prize; Certificate and advancement to State/Stockholm competition

Sponsored by: Water Environment Federation

S1701 - Determining the Most Effective Xylem Water Filter

David Rimm-kaufman, Alyce Yang
Teacher: Matt Shields
Charlottesville High School, Charlottesville City

Stockholm Junior Water Prize #3 - Stockholm Junior Water Prize; Certificate and advancement to State/Stockholm competition

Sponsored by: Water Environment Federation

S1101 - FerroMag: Cleaning up Oil Spills with Nanotechnology

Russell Ratanamalaya

Teacher: Kelly Ratanamalaya

Brooke Point High School, Stafford County

Yale Science & Engineering Association Award (11th grade only) - Preliminary Certificate and website for receiving formal award certificate and medallion.

<http://physics.gcsu.edu/Yale>

Student must go to site no later than 30 May of the Fair year. A formal award certificate, suitable for framing, and a pewter medallion will be forwarded directly to the recipient(s) by the end of September.

Sponsored by: Yale Science & Engineering Association

S0801 - Increasing the Accessibility of Non-contact Tonometry to Facilitate the Early Detection of Glaucoma for At-risk Patients

Hojung Park, Zainab Balogun

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Categories

Honorable Mention: Animal Sciences - J01

J0103 - Clicker Hamster

Julia Christensen

Teacher: Sarah Green

The Covenant School, Independent/Private

Honorable Mention: Animal Sciences - J01

J0107 - Madagascar Hissing Cockroaches

Alexandra Kennedy

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Animal Sciences - J01

J0110 - What's For Dinner, "Deer"?

Timothy Sheridan

Teacher: Chris Hall

The Covenant School, Independent/Private

Third Place: Animal Sciences - J01

J0102 - Blub Blub Behavior

Caylah Franklin

Teacher: Michele Egan

Poole Middle School, Stafford County

Second Place: Animal Sciences - J01

J0105 - GloPro

Alaina Runzi

Teacher: Courtney Quail

Thompson Middle School, Stafford County

First Place: Animal Sciences - J01

J0111 - Exploring Bioluminescence in Dinoflagellates

Haley Minnery

Teacher: Katie Hawkins

Stafford Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02

J0201 - A Comparison of Observation Boys VS Girls

Micah Sieck

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Honorable Mention: Behavioral & Social Sciences - J02

J0207 - Color vs. Black and White

Aiven Thomas

Teacher: Courtney Quail
Thompson Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02
J0210 - Does the key of a song affect its popularity?

Abby Geron
Teacher: Ashley Martin
Ni River Middle School, Spotsylvania County

Honorable Mention: Behavioral & Social Sciences - J02
J0212 - Eye Can Tell

Jessica Baker, Katie Hoben
Teacher: Jason Hicks
Heim Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02
J0213 - Font Styles and Memory

Eleanor Motta
Teacher: Susan Easter
Gayle Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02
J0214 - Gender Color

Amy Kendall
Teacher: Gregory Marsh, Linda Lapp
Freedom Middle School, Spotsylvania County

Honorable Mention: Behavioral & Social Sciences - J02
J0215 - Hidden Advertisements

Evelyn Tse
Teacher: Suzanne Wilson
Dixon-Smith Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02
J0217 - Listen Up! Read This!

Mira Dover, Emma Reese
Teacher: Suzanne Wilson
Dixon-Smith Middle School, Stafford County

Honorable Mention: Behavioral & Social Sciences - J02
J0227 - The effects of auditory hallucinations on the ability to perform cognitive tasks

Julianne White
Teacher: Lisa Winn
Thornburg Middle School, Spotsylvania County

Honorable Mention: Behavioral & Social Sciences - J02

J0233 - Is it Noise or Music

Alexa Young
Teacher: Katie Hawkins
Stafford Middle School, Stafford County

Third Place: Behavioral & Social Sciences - J02

J0211 - Downfalls of Multi-tasking

Alexander Dachos
Teacher: Sheri Sanders
King George Middle School, King George County

Second Place: Behavioral & Social Sciences - J02

J0231 - Who Knows Whats In The News?

Caleb Nichols, Christopher Kushner
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

First Place: Behavioral & Social Sciences - J02

J0228 - The Effects of Color on Peripheral Vision

Jenna Pearson
Teacher: Michele Egan
Poole Middle School, Stafford County

Honorable Mention: Biochemistry - J03

J0304 - Chromatography With Tree Leaves

Agustin Garcia
Teacher: Elaine Frank
Rappahannock Middle School, Rappahannock County

Honorable Mention: Biochemistry - J03

J0308 - Give Me Some Sugar

Sierra Barbee
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

Honorable Mention: Biochemistry - J03

J0313 - The Effect of Beverages on Eggshells

Izzy Motta
Teacher: Susan Easter
Gayle Middle School, Stafford County

Honorable Mention: Biochemistry - J03

J0314 - The Magical Fruit

Mackenzie Kushner
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

Honorable Mention: Biochemistry - J03

J0315 - The Reality of Sports Drinks

Aidan Shell, Blake Wiese

Teacher: Lauren Cabrera

Walton Middle School, Albemarle County

Honorable Mention: Biochemistry - J03

J0320 - Which Beverage is the Most Corrosive?

Claire Chalkley

Teacher: Sheri Sanders

King George Middle School, King George County

Third Place: Biochemistry - J03

J0319 - When Science is Sweet

Nathan Richardson

Teacher: Lisa Winn

Thornburg Middle School, Spotsylvania County

Second Place: Biochemistry - J03

J0309 - Honey as a Food Preservative

Emma Birkitt

Teacher: Sheri Sanders

King George Middle School, King George County

First Place: Biochemistry - J03

J0307 - Garbage Energy

Annamarita Sofis

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0506 - Fabricated Foils

Alexandra Cannon

Teacher: Michele Egan

Poole Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0511 - Hot Ice: Thermal Retention Test

Caleb Peterson

Teacher: Jason Hicks

Heim Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0512 - How clean is your water?

Sydney Morefield

Teacher: Jason Hicks

Heim Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0513 - Ice Ice Baby

Victor Salcedo

Teacher: Michele Egan

Poole Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0514 - Penny vs Vinegar

Mary grace Pattillo

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Honorable Mention: Chemistry - J05

J0515 - Redken-"Because we're worth it." But are they really?

Anna Williams

Teacher: Susan Easter

Gayle Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0516 - Resolution To Rust

Alexis Snively

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0522 - The Effect of Solvent Type on Sharpie Marker

Veronica Kendall

Teacher: Tammy Graves, Kristen Boudreau

Prospect Heights Middle School, Orange County

Honorable Mention: Chemistry - J05

J0527 - Which pen helped commit the crime?

Laura Meline

Teacher: Julie Phegley, Carol Korth

A. G. Wright Middle School, Stafford County

Honorable Mention: Chemistry - J05

J0530 - Crime Scene Chemistry

Lily Hoit

Teacher: Alyssa Schmiedel

Stafford Middle School, Stafford County

Third Place: Chemistry - J05

J0503 - Chemiluminescence

Jordan Franco, Abigail Fielding

Teacher: Lauren Cabrera

Walton Middle School, Albemarle County

Second Place: Chemistry - J05

J0525 - Vinegar Volcano Reaction

Jayden Wynes

Teacher: Jessica Drinks

King George Middle School, King George County

First Place: Chemistry - J05

J0502 - Can You Feel the Heat?

Sydney Wynn

Teacher: Dara Carter

Locust Grove Middle School, Orange County

Honorable Mention: Computer Science - J06

J0602 - Coin Flipping: Human v. Computer

Zach Browe

Teacher: Lisa Winn

Thornburg Middle School, Spotsylvania County

Honorable Mention: Computer Science - J06

J0605 - The Effect of Human Body Positions on the Received Strength of WiFi Signals

Ben Motta

Teacher: Susan Easter

Gayle Middle School, Stafford County

Honorable Mention: Computer Science - J06

J0606 - WiFi Enhancers

Priya Singh

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Computer Science - J06

J0607 - Is Underclocking Worth It?

Kyle Gumaer

Teacher: Alyssa D'Imperio

Stafford Middle School, Stafford County

Third Place: Computer Science - J06

J0603 - How Different Materials Affect Internet Connection

Brian Baugher

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Second Place: Computer Science - J06

J0604 - MACT

John Kelly, Justin Roberts

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

First Place: Computer Science - J06

J0913 - Life Sized 3D Printed Humanoid, Here to Serve!

Sam Rhoades

Teacher: Brian Rhoades

Home School, Home School

Third Place: Earth & Planetary Science - J07

J0701 - Rocks on Ice

Kyler Soriano

Teacher: Gregory Palmer

Louisa Middle School, Louisa County

Second Place: Earth & Planetary Science - J07

J0703 - Tornado Simulator

Natalie Arnold

Teacher: Linda Lapp

Freedom Middle School, Spotsylvania County

First Place: Earth & Planetary Science - J07

J0702 - The Effect Of Wind From A Tornado Inside An Overpass

Megan Robinson

Teacher: Gregory Marsh, Linda Lapp

Freedom Middle School, Spotsylvania County

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0804 - Can You Quill It?

Jocelyn Price

Teacher: Jaime Henning

Chancellor Middle School, Spotsylvania County

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0808 - How to find latent fingerprints using the fuming method

Julie Snow

Teacher: Julie Phegley, Carol Korth

A. G. Wright Middle School, Stafford County

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0814 - Shark Shield

Charlie Vavrik

Teacher: Anne Deane

Tandem School, Independent/Private

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0821 - The Effect of the Type of Metal on the Rate of Corrosion

Mina Dipaula

Teacher: Suzanne Wilson

Dixon-Smith Middle School, Stafford County

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0823 - The Science of Soundproofing: DIY Insulation

Emily Eppard

Teacher: Patrick Scharf

Louisa Middle School, Louisa County

Honorable Mention: Engineering – Materials & Bioengineering - J08

J0824 - The Wax Cup Solution

Rimi Kaur

Teacher: Diana McCullough

Sutherland Middle School, Albemarle County

Third Place: Engineering – Materials & Bioengineering - J08

J0806 - Faking Finger Prints

Vivian Vickers

Teacher: Susan Easter

Gayle Middle School, Stafford County

Second Place: Engineering – Materials & Bioengineering - J08

J0825 - Which suit?

Thomas McGowan

Teacher: Susan Easter

Gayle Middle School, Stafford County

First Place: Engineering – Materials & Bioengineering - J08

J0812 - Mind Controlled Prosthetic Finger

Megan Humphrey

Teacher: Diana McCullough

Sutherland Middle School, Albemarle County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0902 - Bridges of Strength

Taylor Collins

Teacher: Jaime Henning

Chancellor Middle School, Spotsylvania County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0905 - electromagnetic projectile

Kelsey Skees

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0908 - How Does Weather Affect the Accuracy of a .22 Caliber Rifle?

Domenic Del grosso

Teacher: Elaine Frank

Rappahannock Middle School, Rappahannock County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0910 - How Much Heat?

Dean Forrest

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0912 - Illuminating Lead

Rebecca Tidwell

Teacher: Sheri Sanders

King George Middle School, King George County

Honorable Mention: Engineering – Electrical & Mechanical - J09

J0919 - Solenoid Security System

Joseph Lorber, Maximus Mccune, Evan Niehoff

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Third Place: Engineering – Electrical & Mechanical - J09

J0601 - Cell Phone Radiation: Measuring the Various Levels of Different iPhone Generations

Maryam Alwan

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Second Place: Engineering – Electrical & Mechanical - J09

J0917 - Rapid Fire: Optimizing Rail Gun Performance with Capacitors

Hunter Yates

Teacher: Steven Yates

Charlottesville Catholic School, Independent/Private

First Place: Engineering – Electrical & Mechanical - J09

J0907 - How Different Trusses Affect a Bridges Durabilty

Heather Wall, Artina Li

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Honorable Mention: Energy & Transportation - J10

J1002 - Building the Best Solar Oven

James Henter

Teacher: Kristopher Chain

Peabody School, Home School

Honorable Mention: Energy & Transportation - J10

J1003 - CAN CONVERTING A PIZZA BOX INTO A SOLAR OVEN REALLY COOK BACON AND EGGS? ARE THE SUN'S RAYS STRONG ENOUGH DESPITE THE OUTSIDE TEMPERATURE?

Ryan Knee

Teacher: Jason Hicks

Heim Middle School, Stafford County

Honorable Mention: Energy & Transportation - J10

J1007 - Heating Sheet Metal

Ryan Wheeler

Teacher: John Lenow

Louisa Middle School, Louisa County

Honorable Mention: Energy & Transportation - J10

J1008 - How Edible Will the Food Be?

Heather Williams

Teacher: Elaine Frank

Rappahannock Middle School, Rappahannock County

Honorable Mention: Energy & Transportation - J10

J1009 - Hydropower: put your Water to Work

Brandon Stokes

Teacher: Linda Lapp

Freedom Middle School, Spotsylvania County

Honorable Mention: Energy & Transportation - J10

J1013 - Recycled Solar Heater

Landon Allan, Kate Fard

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Honorable Mention: Energy & Transportation - J10

J1014 - Solar Powered Helio-tracker

Maya Cea-lavin

Teacher: Jaime Henning

Chancellor Middle School, Spotsylvania County

Honorable Mention: Energy & Transportation - J10

J1018 - The Effect On The Air Temperature Of A Classroom By Increasing The Number Of People

Cassia Gainer

Teacher: Elaine Frank

Rappahannock Middle School, Rappahannock County

Honorable Mention: Energy & Transportation - J10

J1020 - The Making of Biogas from Biomass

Carley Slezak

Teacher: Gregory Marsh, Linda Lapp

Freedom Middle School, Spotsylvania County

Honorable Mention: Energy & Transportation - J10

J1022 - Water You Doing With Those Solar Ovens?

Alicia Gomez
Teacher: Jaime Henning
Chancellor Middle School, Spotsylvania County

Honorable Mention: Energy & Transportation - J10

J1023 - What Color Keeps You The Warmest

Janae Craig, Nicole Vinso
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

Honorable Mention: Energy & Transportation - J10

J1024 - When Trains Fly

Alayna Campbell
Teacher: Gregory Palmer
Louisa Middle School, Louisa County

Honorable Mention: Energy & Transportation - J10

J1027 - Which Design is Most Aerodynamic?

William Rush
Teacher: Dana Brancolini
Stafford Middle School, Stafford County

Third Place: Energy & Transportation - J10

J1006 - Harnessing Fire: Creating a Portable Thermal Electric Generator that uses a Prebuilt Heat Source

Grant Williams, Charlie Cross, Tyler Rodgers
Teacher: Robert Munsey
Sutherland Middle School, Albemarle County

Second Place: Energy & Transportation - J10

J1012 - propeller positions, do they matter?

Beverley Arbogast
Teacher: Sheri Sanders
King George Middle School, King George County

First Place: Energy & Transportation - J10

J1021 - The Solar Tracker

Dhara Liyanage
Teacher: Robert Munsey
Sutherland Middle School, Albemarle County

Honorable Mention: Environmental Management - J11

J1101 - A Solution to the California Drought

Ethan Perdew
Teacher: Michele Egan
Poole Middle School, Stafford County

Honorable Mention: Environmental Management - J11

J1104 - Crazy Little Thing Called Run-off

Avery Niven

Teacher: Kimberly Taylor

Village School, Independent/Private

Honorable Mention: Environmental Management - J11

J1107 - Evaluating the Effectiveness of Bioremediation and Chemical Dispersion in Cleaning up Oil Spills

Alec Petty

Teacher: Elaine Frank

Rappahannock Middle School, Rappahannock County

Honorable Mention: Environmental Management - J11

J1108 - Filtration of Grey Water Using Vegetation

Max Rosner, Rishi Raghavan, Andrew Choe

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Honorable Mention: Environmental Management - J11

J1109 - Growing Garbage

Amara Roland

Teacher: Dara Carter

Locust Grove Middle School, Orange County

Honorable Mention: Environmental Management - J11

J1114 - The Effect of the Type of Pesticides on the Health of Venus Flytraps

Susan Webb

Teacher: Suzanne Wilson

Dixon-Smith Middle School, Stafford County

Honorable Mention: Environmental Management - J11

J1119 - Water and Oil Still Don't Mix

Kellylynn Brennan

Teacher: Rebecca Musso

Stafford Middle School, Stafford County

Third Place: Environmental Management - J11

J1110 - Helping The Environment, One Soda Ring At A Time

Natalie Peck, Kate Hafemeister, Sydney Sneider

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Second Place: Environmental Management - J11

J1112 - Odor Pollution Control

Jayden Moon

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

First Place: Environmental Management - J11

J1116 - Water Filtration/Purification

Krishan Perumal

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Honorable Mention: Environmental Sciences - J12

J1205 - Is it 'Dew'able? Dew as a water source.

Austin McNichols

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Honorable Mention: Environmental Sciences - J12

J1207 - No Pollution is the Clear Solution

Katherine Parkyn, Lauren Farace

Teacher: Michele Egan

Poole Middle School, Stafford County

Honorable Mention: Environmental Sciences - J12

J1210 - The Effect of the Amount of Vinegar on the Weight of Limestone over Time

Skylar Jackman

Teacher: Lisa Winn

Thornburg Middle School, Spotsylvania County

Third Place: Environmental Sciences - J12

J1211 - The Effects of Man-made and Natural Fertilizers on Aquatic Plants and Water Quality

Connor Schweikart

Teacher: Patrick Scharf

Louisa Middle School, Louisa County

Second Place: Environmental Sciences - J12

J1212 - The Visibility of Methane in a Camera

Ella Curran, Emily Chang

Teacher: Diana McCullough

Sutherland Middle School, Albemarle County

First Place: Environmental Sciences - J12

J1206 - My Local Stream Health

Benjamin Van rooy

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Honorable Mention: Mathematical Sciences - J13

J1302 - It's Your Birthday, and Mine Too! (A Validation of the Birthday Paradox)

Zane Darden
Teacher: Ashley Martin
Ni River Middle School, Spotsylvania County

Third Place: Mathematical Sciences - J13

J1301 - Does the Mendelian Ratio Apply to Humans?

Nithya Gottipati
Teacher: Susan Easter
Gayle Middle School, Stafford County

Second Place: Mathematical Sciences - J13

J1304 - Phi Face

Craig Kimball
Teacher: Susan Easter
Gayle Middle School, Stafford County

First Place: Mathematical Sciences - J13

J1303 - Magnus Effect

Kaitlyn Fulmore
Teacher: Susan Easter
Gayle Middle School, Stafford County

Honorable Mention: Medicine & Health Sciences - J14

J1405 - Does color influence blood pressure?

Jessie Wang
Teacher: Sheri Sanders
King George Middle School, King George County

Honorable Mention: Medicine & Health Sciences - J14

J1406 - Does exercise improve reaction time?

Katherine McLaughlin
Teacher: Ashley Martin
Ni River Middle School, Spotsylvania County

Honorable Mention: Medicine & Health Sciences - J14

J1410 - Gas-ology

Samantha Greer
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

Honorable Mention: Medicine & Health Sciences - J14

J1411 - Got Fluoride?

Evan Wildermuth
Teacher: Dara Carter
Locust Grove Middle School, Orange County

Honorable Mention: Medicine & Health Sciences - J14

J1413 - How does the blood flow through an artery when the diameter is decreased?

Caroline Fairbanks

Teacher: Ashley Martin

Ni River Middle School, Spotsylvania County

Honorable Mention: Medicine & Health Sciences - J14

J1416 - The Battle of the Toothpastes

Paris Johnson

Teacher: Gina Tuck

Classical Conversations, Home School

Honorable Mention: Medicine & Health Sciences - J14

J1417 - The Effect of an Artificial Pancreas on pH levels in the Blood Stream

Mikayla Heightshoe

Teacher: Lisa Winn

Thornburg Middle School, Spotsylvania County

Third Place: Medicine & Health Sciences - J14

J1401 - Acid Attack: Are Your low/no sugar beverages really a healthier option?

Elena Grodt

Teacher: Dara Carter

Locust Grove Middle School, Orange County

Second Place: Medicine & Health Sciences - J14

J1415 - Sweet and Sour Smells

Iris Susen

Teacher: Kimberly Taylor

Village School, Independent/Private

First Place: Medicine & Health Sciences - J14

J1404 - Do Hot Tubs Truly Relax You?

Olivia Batt, Julianne Warren

Teacher: Michele Egan

Poole Middle School, Stafford County

Honorable Mention: Microbiology - J15

J1501 - Antibacterial Soap: Do we really need it?

Logan Jenkins

Teacher: Patrick Scharf

Louisa Middle School, Louisa County

Honorable Mention: Microbiology - J15

J1505 - Is Sugarfree Gum Really Better for Your Mouth?

Clarissa Truitt

Teacher: Sheri Sanders

King George Middle School, King George County

Honorable Mention: Microbiology - J15

J1506 - Organiclean the All-Natural Hand Sanitizer

Ethan Cha, Benny Bigler-wang, Michael Kattwinkel

Teacher: Robert Munsey

Sutherland Middle School, Albemarle County

Third Place: Microbiology - J15

J1509 - Which time interval of ultraviolet radiation exposure eliminates the most bacteria on an unexposed side of a bacteria dish?

Rachel Weghorste

Teacher: Elaine Frank

Rappahannock Middle School, Rappahannock County

Second Place: Microbiology - J15

J1508 - The Effects of Antibacterial Property of Phoradendron leucarpum (American mistletoe) On Common Human Pathogens

Madison Cruz

Teacher: Mary Therese

Home School, Home School

First Place: Microbiology - J15

J1502 - Effectiveness of Glycyrrhiza Glabra as an Antibacterial Agent

Aditi Prakash

Teacher: Teresa Goodin

Henley Middle School, Albemarle County

Honorable Mention: Physics & Astronomy - J16

J1601 - Are Name Brand Batteries Better Than Generic Brand Batteries?

Mackenzie Fox

Teacher: Michele Egan

Poole Middle School, Stafford County

Honorable Mention: Physics & Astronomy - J16

J1603 - Deflategate

Olivia Stocks

Teacher: Suzanne Wilson

Dixon-Smith Middle School, Stafford County

Honorable Mention: Physics & Astronomy - J16

J1606 - Free Fall

Brad Owen

Teacher: Sarah Green

The Covenant School, Independent/Private

Honorable Mention: Physics & Astronomy - J16

J1607 - Heating Mars

Anika Bronson, Sydney Barth

Teacher: Michele Egan
Poole Middle School, Stafford County

Honorable Mention: Physics & Astronomy - J16

J1608 - Hot or Cold

Jillian Smith
Teacher: Patrick Scharf
Louisa Middle School, Louisa County

Honorable Mention: Physics & Astronomy - J16

J1611 - Laser, Sugar, Refraction

Nathan Pechacek
Teacher: Lisa Pechacek
Classical Conversations, Home School

Honorable Mention: Physics & Astronomy - J16

J1612 - Lasers, Gelatin, Refraction!

Elijah Dawson
Teacher: Sheri Sanders
King George Middle School, King George County

Honorable Mention: Physics & Astronomy - J16

J1613 - Linear Accelerator

Brendan Shea
Teacher: Sheri Sanders
King George Middle School, King George County

Honorable Mention: Physics & Astronomy - J16

J1614 - Photography- You Light up my Life

Rebecca Pratte
Teacher: Michele Egan
Poole Middle School, Stafford County

Honorable Mention: Physics & Astronomy - J16

J1615 - Reducing Impacts

Elizabeth Bradford
Teacher: Patrick Scharf
Louisa Middle School, Louisa County

Honorable Mention: Physics & Astronomy - J16

J1616 - Studies in Cloud Chambers and Domestic Radiation

Samuel Rosner
Teacher: Diana McCullough
Sutherland Middle School, Albemarle County

Honorable Mention: Physics & Astronomy - J16

J1622 - Thermal Cells?

Christopher Czepiel, Kenneth Tran
Teacher: Julie Phegley, Carol Korth
A. G. Wright Middle School, Stafford County

Honorable Mention: Physics & Astronomy - J16

J1626 - Wrecking Balls and Block Walls

Matthew Knowles
Teacher: Chris Hall
The Covenant School, Independent/Private

Honorable Mention: Physics & Astronomy - J16

J1627 - You Are My Sun Time

Zoe Kusyk
Teacher: Kimberly Taylor
Village School, Independent/Private

Honorable Mention: Physics & Astronomy - J16

J1631 - The Effect of Gases on the Bounce of a Volleyball

Stephanie Hentemann
Teacher: Alyssa D'Imperio
Stafford Middle School, Stafford County

Third Place: Physics & Astronomy - J16

J1609 - How Wood Types Affect Sound Quality and Resonation

Abigail Leidy
Teacher: Ashley Martin
Ni River Middle School, Spotsylvania County

Second Place: Physics & Astronomy - J16

J1621 - The Power of Change

Thomas Homan
Teacher: Linda Lapp
Freedom Middle School, Spotsylvania County

First Place: Physics & Astronomy - J16

J1628 - ZIP VROOM ZOOM The Effect of Different Surfaces on Rollerblades

Miriam Gildea
Teacher: Sarah Green, Gretchen Feury
The Covenant School, Independent/Private

Honorable Mention: Plant Sciences - J17

J1702 - Bean Seeds

Danica Brown
Teacher: Dara Carter
Locust Grove Middle School, Orange County

Honorable Mention: Plant Sciences - J17

J1704 - Do essential oils affect plant growth?

Olivia Byram

Teacher: Jaime Henning

Chancellor Middle School, Spotsylvania County

Honorable Mention: Plant Sciences - J17

J1706 - FEED ME, Seymour! Unearthly Pansies

Moriah Moss

Teacher: Gregory Palmer

Louisa Middle School, Louisa County

Honorable Mention: Plant Sciences - J17

J1708 - Noisy Growth

Aria Finley

Teacher: Jaime Henning

Chancellor Middle School, Spotsylvania County

Honorable Mention: Plant Sciences - J17

J1713 - The Fastest Rooting Medium

Ella Davis

Teacher: Courtney Quail

Thompson Middle School, Stafford County

Third Place: Plant Sciences - J17

J1705 - Electromagnetism Strikes

Kelsey Wilson

Teacher: Susan Easter

Gayle Middle School, Stafford County

Second Place: Plant Sciences - J17

J1703 - Communication of Plants Through Air

Nathan Shoppell

Teacher: Sheri Sanders

King George Middle School, King George County

First Place: Plant Sciences - J17

J1714 - Will it Grow?

Michael Foley

Teacher: Rebecca Musso

Stafford Middle School, Stafford County

Honorable Mention: Animal Sciences - S01

S0101 - Animals Sensing Earthquakes

Kellen Egan

Teacher: Michele Egan

North Stafford High School, Stafford County

Third Place: Animal Sciences - S01

S0103 - New Ginseng Lotion Makes the Earthworm More Active

Daesik Hwang

Teacher: Jongbin Lee

Professional Research Academy for Young Scientists, Independent/Private

Second Place: Animal Sciences - S01

S0104 - Trauma Through Generations: The Effects of Trauma Through Generations of Vanessa Cardui

Elizabeth Heck

Teacher: Jeremy Dove, Katina Dudley

Monticello High School, Albemarle County

First Place: Animal Sciences - S01

S0102 - Can Crickets regulate their own eating?

Kierstyn Zimmerman

Teacher: Jeremy Dove

Monticello High School, Albemarle County

Honorable Mention: Behavioral & Social Sciences - S02

S0202 - Audio and Visual Reaction Times

Samuel Nordbrock

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Third Place: Behavioral & Social Sciences - S02

S0203 - The Effect of Breakfast Nutrition on School Performance

Lauren Hughlett, Kathryn Mayo

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Behavioral & Social Sciences - S02

S0204 - The Effect of Intrinsic Stereotypes on Pre-Adolescent Academic Performance

Abigail Treece, Hannah Lewis

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

First Place: Behavioral & Social Sciences - S02

S0201 - Analyzing the Effect of Music on Focus

Alexander Monaco, Michael Levit

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

First Place: Biochemistry - S03

S0302 - Production of Hydrogen by Green Algae

Jay Rothenberger

Teacher: Carol Stutzman

Western Albermarle High School, Albemarle County

Third Place: Cellular & Molecular Biology - S04

S0403 - The Role of Fusion RNA in Human Breast Epithelial Cell Growth

Emily Lin

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Cellular & Molecular Biology - S04

S0401 - CRISPR-Cas9 Precise Genome Engineering in Stem Cells: Xirp2 Knockout and Ren1 Knock-In for the Development of Hearing Loss and Kidney Disease Models

Lillian Xu

Teacher: Carol Stutzman

Western Albermarle High School, Albemarle County

First Place: Cellular & Molecular Biology - S04

S0402 - Induced Mortality of Lung Cancer Cells using an Egg-Specific Target

Mriganka Mandal

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

First Place: Chemistry - S05

S0501 - Corrosion of Brass Instruments by Acidic Beverages

Renee Mcgee

Teacher: Ashley Johnson

Mountain View High School, Stafford County

Honorable Mention: Computer Science - S06

S0603 - Swarm Robot Technology

Haochen Gao, Aaron Poulter-martinez

Teacher: Thomas Larson

Western Albermarle High School, Albemarle County

Third Place: Computer Science - S06

S0601 - An Improved Approach to Traditional RSA Encryption

Ryan Figler, Gabriel Haskins

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Computer Science - S06

S0602 - Analysis of Memory Effect in Stock Price Movement

Hyunsuk Kim

Teacher: Erik Born

Woodberry Forest School, Independent/Private

First Place: Computer Science - S06

S0604 - Vector Vs. Raster

Yousef Haggy

Teacher: Larry Letellier

Riverbend High School, Spotsylvania County

Second Place: Earth & Planetary Science - S07

S0701 - Mining in Microgravity: The extraction of stellar material through high-impact fracturing

Adam Pratte

Teacher: Michele Egan

Colonial Forge High School, Stafford County

First Place: Earth & Planetary Science - S07

S0702 - The Effect of Sine Wave Frequencies on Vortex Disruption: A Step to Ending Tornado Destruction

Leia Otterstatter

Teacher: Donald Briggs

Colonial Forge High School, Stafford County

First Place: Engineering – Materials & Bioengineering - S08

S0801 - Increasing the Accessibility of Non-contact Tonometry to Facilitate the Early Detection of Glaucoma for At-risk Patients

Hojung Park, Zainab Balogun

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Honorable Mention: Engineering – Electrical & Mechanical - S09

S0901 - Applying Ultrasonic and Acoustic Cleaning to Dishwashers

Hannah Paeng, Abigail Paeng

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Honorable Mention: Engineering – Electrical & Mechanical - S09

S0903 - Developing an Alarm System to Protect Infants from Heat Related Car Deaths

Ally Johnson, Joseph Balaban

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Third Place: Engineering – Electrical & Mechanical - S09

S0902 - Automated Awakening Using Vibrations Based on Heartbeat Fluctuations

William Harris

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Engineering – Electrical & Mechanical - S09

S0905 - The Optimum Rate of Electrical Discharge Between Two High-Potential Terminals of a Resonant Transformer

Gene Flecker

Teacher: Nick Budziszewski

Orange County High School, Orange County

First Place: Engineering – Electrical & Mechanical - S09

S0904 - The Design of a Versatile Ultralow Field MRI Machine

Ishpreet Singh, Ryan Scholes, Sander Abraham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Energy & Transportation - S10

S1002 - Prototyping a Solar Sidewalk System

Nicolas Gutkowski, Saqib Rizvi

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

First Place: Energy & Transportation - S10

S1001 - An Investigation of Extended Formation Flight

Kevin Zong, Silas Beers

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Third Place: Environmental Management - S11

S1101 - FerroMag: Cleaning up Oil Spills with Nanotechnology

Russell Ratanamalaya

Teacher: Kelly Ratanamalaya

Brooke Point High School, Stafford County

Second Place: Environmental Management - S11

S1103 - Urban Ecosystem Redesign: The New New York

Sam Rimm-kaufman

Teacher: Matt Shields

Charlottesville High School, Charlottesville City

First Place: Environmental Management - S11

S1102 - Innovative and Industrial Usage of Invasive Plants

Sophie Heny

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Environmental Sciences - S12

S1202 - Environmental EMR Measurement and Shielding Phone Pocket Design

Hyun jee Lim

Teacher: Jongbin Lee

Professional Research Academy for Young Scientists, Independent/Private

First Place: Environmental Sciences - S12

S1201 - Creating a Water Purity Indicator

Annaliese Schauer, Lindsay Miller

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Mathematical Sciences - S13

S1302 - Using Big Data Mining Procedures to Build General Linear Logistic Models of the Inexplicable: Can Financial Market Crashes be Predicted?

Elizabeth Kromkowski

Teacher: Charles Kromkowski

Charlottesville High School, Charlottesville City

First Place: Mathematical Sciences - S13

S1301 - Fractal Dimension and Rivers in Virginia

Evangeline Sackett

Teacher: Jeremy Dove

Monticello High School, Albemarle County

Third Place: Medicine & Health Sciences - S14

S1402 - Identification of Cancer Cell Surface Diagnostic and Therapeutic Targets in Three Cancer Cell lines

Arghya Shetty

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Medicine & Health Sciences - S14

S1401 - Elite Swimmers Experience Changes in Lung Function During Training

Hannah Pajewski

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

First Place: Medicine & Health Sciences - S14

S1403 - Quantifying Longevity increases from partial vascular occlusion(PVO)

Clark Benham

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Honorable Mention: Microbiology - S15

S1503 - Hygienic Hospital Television Remote for Inpatient Care

Diana Harley

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Third Place: Microbiology - S15

S1501 - Are antibacterial cleaners making bacteria antibiotic resistance?

Jaume Plumb-planas, Rodrigo Nunez

Teacher: Jeremy Dove

Monticello High School, Albemarle County

Second Place: Microbiology - S15

S1504 - Improving the Sanitation of Hand-Dryers Using the Electrification of Nanoparticles

Kiernan Dimeglio, Tyler Petrell

Teacher: Kirsten Fuoti
Albemarle High School, Albemarle County

First Place: Microbiology - S15

S1502 - Changes in strawberry root bacteria over a season of growth

Liam Godbold

Teacher: Gene Godbold

Home School, Home School

Third Place: Physics & Astronomy - S16

S1601 - Active Noise Reduction in the Classroom

Samuel Rainey, John Morris

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Second Place: Physics & Astronomy - S16

S1602 - One String Leads to Another: Sympathetic Vibrations on a Guitar

Samantha Kelly, Mary Gentry

Teacher: Jeremy Dove

Monticello High School, Albemarle County

First Place: Physics & Astronomy - S16

S1603 - The Effect of the FINA Rule Changes on the Efficiency of a Breaststroke Pullout

Austin Katstra, Daniel Jacobson

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County

Third Place: Plant Sciences - S17

S1701 - Determining the Most Effective Xylem Water Filter

Dauida Rimm-kaufman, Alyce Yang

Teacher: Matt Shields

Charlottesville High School, Charlottesville City

Second Place: Plant Sciences - S17

S1703 - The Effect of Organic fertilizer on Black Bean Plants

Maria Vizcaino

Teacher: Jeremy Dove, Katina Dudley

Monticello High School, Albemarle County

First Place: Plant Sciences - S17

S1702 - Drought Resurrection: A novel method to induce drought resistance in plants

Ashwin Swaminathan

Teacher: Kirsten Fuoti

Albemarle High School, Albemarle County