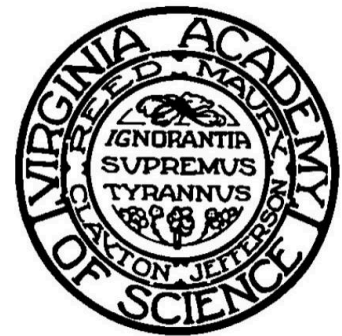
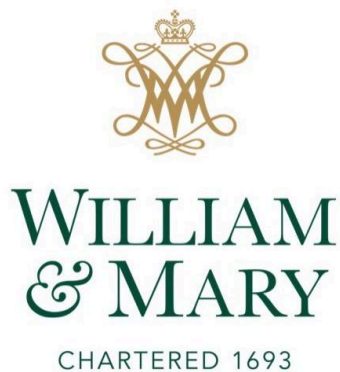


Virginia Junior Academy of Science Research Symposium and 83rd Annual Meeting

May 3, 2024 - General Session

May 4, 2024 - Student Presentations

May 19, 2024 - Awards Ceremony



A Program of The Virginia Academy of Science

Virtual Research Symposium, hosted by:

The College of William & Mary

Williamsburg, Virginia

Sponsors:

POWER Foundation

Program is available on the VJAS website www.vjas.org

The Virginia Academy of Science

The Virginia Academy of Science (VAS) is the fifth largest state, region, or city academy of science in the U.S.; it was founded in 1923 to promote the civic, academic, agricultural, industrial, and commercial welfare of the people of Virginia. Exemplary programs have included Flora of Richmond and Vicinity, Published, 1930, the first comprehensive multidisciplinary studies of the James River Basin and the Great Dismal Swamp, volunteer research assistance to Virginia in the instance of the Kepone pollution disaster, and leadership in establishing the Science Museum of Virginia.

Fall Undergraduate Research Meeting:

The focus of this meeting is support of undergraduate student research. Specific details about the 2024 Fall Undergraduate Research Meeting, including the location and date will be made available on the VAS website (www.vacadsci.org) during the summer.

The Virginia Junior Academy of Science

VJAS is a national model for the new and renewing state junior academies and has been ranked among the top three in the nation for over two decades. Through VJAS and other programs, VAS annually reaches over 40,000 Virginia middle and high school students. Hundreds of volunteers make it possible for Virginia secondary students to experience these activities.

The College of William & Mary

The Virginia Academy of Science and the Virginia Junior Academy of Science express their sincere appreciation to The College of William & Mary for the generous support in providing web conferencing meeting rooms and services.

POWER Foundation

The POWER Foundation aims to make the world a better place by inspiring, nurturing and empowering future generations of problem solvers.

Formed in 2013 by [POWER Engineers, Inc.](#) the POWER Foundation is a 501(c)(3) organization dedicated to supporting science, technology, engineering, arts and math education (STEAM) by working with organizations that are building success in our local communities.

The Foundation is proud to sponsor the Virginia Junior Academy of Science and to work with VJAS to help students develop the skills they'll need for successful careers as scientists, engineers, and mathematicians.

A Tradition of Excellence, A Commitment to Action

Join the Virginia Academy of Science

Support the Virginia Academy of Science

Contributors and Supporters

The Virginia Academy of Science and The Virginia Junior Academy of Science notes with appreciation the contribution and support of hundreds of individuals and dozens of organizations to the success of this year's Research Symposium and Annual Meeting.

VJAS Awards and Sponsors:

American Association for the Advancement of Science
American Junior Academy of Science
American Naval Engineers
Ann Hancock Fund Botany Award
Carpenter and Berry Funds
Catesby Jones Fund
Dr. and Mrs. Preston Leake - Applied Chemistry Award
Dr. Russell Rowlett
Dorothy Knowlton Fund
Ertle Thompson
AJAS Fellowship
Friends of the Virginia Museum of Natural History Genetics Award
Gwathmey Chemistry Awards
Jeffers Fund
Joyce Peterson Fund
National Association of Academies of Science
Physics Award
POWER Foundation
R. Dean Decker Honorarium
Richmond Area Speleological Society
Roscoe Hughes Memorial Award
The Virginia Academy of Science
The Virginia Psychological Foundation
Virginia Association for Biological Education (VABE)
Virginia Chapter, National Foundation for Infectious Diseases
Virginia Division, American Cancer Society
Virginia Marine Science Consortium, Virginia Sea Grant College Program
Virginia Tech Chapter, Gamma Sigma Delta (Agriculture)

Sponsors of VJAS Scholarships:

Bethel High School VJAS Science Club
Old Dominion University
The Virginia Environmental Endowment
Virginia Ellet

Sponsors of VJAS Research Grants Fund:

The Virginia Academy of Science
Virginia Environmental Business Council

Officers of The Virginia Academy of Science

President.....Conley K. McMullen, James Madison University
President-Elect.....Parrish Waters, University of Mary Washington
Vice President.....Christopher J. Osgood, Old Dominion University
Secretary.....Richard Groover, Reynolds Community College
Treasurer.....April Wynn, University of Mary Washington
Executive Officer.....Philip M. Sheridan
Executive Officer Emeritus.....Arthur F. Conway

Virginia Junior Academy of Science

VJAS Committee Chair.....Se W. Jeong
VJAS Committee Vice Chair.....Michael E. Lovrencic
VJAS Director.....Susan P. Booth
VJAS Associate Director.....Robin W. Curtis

VJAS Student Officers

VJAS Co-President.....Rania Lateef, Governor’s School @ Innovation Park
VJAS Co- President.....Yash Saxena, Maggie L. Walker Governor’s School
VJAS Vice President.....Hannah Qi, Central Virginia Governor’s School
VJAS Secretary.....Gretchen Gaffney, Clover Hill High School
VJAS Co-Editor-in-Chief..Brian Zhou, Thomas Jefferson High School for Science & Technology
VJAS Co-Editor-in-Chief.....Reagan Labert, Math Science Academy at Ocean Lakes
VJAS Communication Liaison.....Kriesh Tivare, Langley High School
VJAS Communication Liaison.....Nitya Kumar, Douglas Southall Freeman High school
Officer Alumni.....Kayla Holston

The College of William & Mary Local Arrangements Chair

Local Arrangements Chair.....Joshua Erlich

VJAS Committee Chair's Welcome



May 3 2024

Dear Virginia Junior Academy of Science participants,

On behalf of the Virginia Junior Academy of Science Team and Committee, I would like to extend the warmest welcome to each and every one to the 83rd Virginia Junior Academy of Science (VJAS) Annual Meeting and Research Symposium. Although we are not able to meet in person, The College of William & Mary in Williamsburg, Virginia, is hosting our Research Symposium virtually this year.

First, I would like to congratulate our student finalists. Despite the challenges, each one of you strived to conduct the best possible scientific research experiments in a variety of different settings and circumstances. Your valiant and resilient efforts shine through brightly – as a VJAS student finalist, your research papers have been read

thoroughly and were selected by a rigorous panel of evaluators from across the state. This is a great accomplishment and you should be proud of your research and academic success!

As we commence our virtual Annual Meeting and Research Symposium, I would like to share some thoughts with you. This past year, more so than any others, we have seen a rise in the stake – the importance – of the role science and research plays in our society. Scientists from all corners of the Earth joined together and responded to meet a daunting challenge. We have acted as one to address a global crisis that discriminates against none.

This atmosphere of cooperation and working together as collaborators, and not necessarily viewing each other as competitors all the time, is something we scientists need to continue promoting. Yes, there is a balance – but our society will greatly benefit and the frontiers of knowledge further breached into new territories faster if we work together more often. Therefore, I would encourage you to view each other during this virtual Research Symposium as future collaborators and colleagues, partners of the future, rather than as competitors.

As you move onward into your collegiate and professional careers, I understand that some of you will continue the path of a scientist, but just as many will choose different routes in medicine, teaching, politics, and so on. What we hope to convey at this year's Annual Meeting is that no matter which career route you choose, your fundamental understanding of science and how research is conducted to bring progress, will be invaluable and become a lifelong foundation. And remember, you can always be an advocate in promoting science and research, wherever you are.

In closing, I hope the 83rd VJAS virtual Annual Meeting and Research Symposium is an enriching and engaging experience for everyone. Once again, welcome and congratulations on your accomplishments.

Sincerely,

Se W. Jeong

Chairman, VAS/VJAS Committee

SCHEDULE OF EVENTS

Virginia Junior Academy of Science 2024 Research Symposium

Friday, May 3, 2024		
7 PM - 9 PM	VJAS General Session and Jeffers Memorial Lecture	Live Zoom Webinar Zoom Link: https://cwm.zoom.us/j/93894912424

Saturday, May 4, 2024		
8:30 - 9 AM	Judge's Overview Meeting at 9 AM	ZOOM LINK https://cwm.zoom.us/j/97509774622?pwd=MUVRb3hqc2gwdnZua012cnJiVnU5QT09
10 AM - 3 PM	VJAS Student Paper Presentations	Concurrent Zoom BreakOut Rooms Presentation Sessions ZOOM LINK https://cwm.zoom.us/j/97509774622?pwd=MUVRb3hqc2gwdnZua012cnJiVnU5QT09
Specific Student Paper Presentation schedule starts on Page 8		

Sunday, May 19, 2024		
7 pm - 9 pm	VJAS Awards Ceremony	Live Zoom Webinar: <i>To Be Announced and Posted on VJAS Home Page</i>

George W. Jeffers Memorial Lecture

Friday Evening VJAS General Session

Resilient Marine Organisms: Making a living in a tough marine world



Louis Burnett, PhD

Professor Emeritus

College of Charleston, South Carolina

Louis Burnett is a Professor Emeritus at the College of Charleston in South Carolina. He was previously on the faculty at the University of San Diego where he served as department chair. At the College of Charleston, he was chair of the Dept. of Biology and Director of the Grice Marine Laboratory. He is currently the Executive Director of the National Association of Marine Laboratories. His long-time interest in the environmental physiology of animals began at the College of William and Mary under his mentor Dr. Charlotte P. Mangum. He did his Ph.D. at the University of South Carolina at the Baruch Institute under Dr. Winona B. Vernberg. Postdoctoral research took him to Aarhus, Denmark where he studied under Dr. Kjell Johansen. His work on marine animals has focused on the physiology of acid-base regulation, respiration, ionic regulation, and immunology. His latest project is on the fitness of shrimp infected with black gill disease using underwater treadmills.

Presentation Schedule - Middle School

2024 VJAS Symposium

May 4, 2024



Table of Contents

Table of Contents.....	9
AH - Animal and Human Sciences - A.....	10
AH - Animal and Human Sciences - B.....	11
CS - Chemical Science - A.....	12
CS - Chemical Science - B.....	13
EE - Ecology and Earth Sciences.....	14
ET - Engineering and Technology.....	16
HB - Human Behavior.....	16
PA - Physical Science and Astronomy.....	17
PM - Plant Sciences and Microbiology - A.....	18
PM - Plant Sciences and Microbiology - B.....	20
PM - Plant Sciences and Microbiology - C.....	21

AH - Animal and Human Sciences - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Goel Ahana The Effect of Ashoka Extract on Drosophila Melanogaster	Ahana	Goel	George H. Moody Middle School	Round 3 Animal & Human Sciences A (AH-A)	10:00
Karmarkar Aarya The Effect of Light Exposure on the Circadian Rhythm of Crickets	Aarya	Karmarkar	George H. Moody Middle School	Round 3 Animal & Human Sciences A (AH-A)	10:20
Kumar Devansh, The Effect of Pharmaceutical Pollution on Daphnia Magna Heart Rate (BPM)	Devansh	Kumar	George H. Moody Middle School	Round 3 Animal & Human Sciences A (AH-A)	10:40
Lateef Deen The Perils of Plastic Can Phytochemicals Overcome the Effect of Microplastics on the Health of Daphnia magna (Water Fleas)?	Deen	Lateef	Benton Middle School	Round 3 Animal & Human Sciences A (AH-A)	11:00
Lile Grayson The Effect of Puzzle Bowls on the Eating Speed of a Canine	Grayson	Lile	Sabot School	Round 3 Animal & Human Sciences A (AH-A)	11:20
Misra Anushka How Strong is Your Body's Base?	Anushka	Misra	Gainesville Middle School	Round 3 Animal & Human Sciences A (AH-A)	11:40
Lunch Break/ Zoom Restart					12:00
AH A Judges determine places after last presentation					12:30
AH Head Judges meet in AH-A to determine overall winner					1:00
Special Judges meet at 4 pm					4:00

AH - Animal and Human Sciences - B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Rachel Kamil The Ship of Theseus: The Effect of Context on the Human Brain	Rachel	Kamil	Ronald Reagan Middle School	Round 3 Animal & Human Sciences B (AH-B)	10:00
Nevarez Carrillo Alexa An Investigation Into the Wavelengths of Light Perceived by Axolotl	Alexa	Nevarez Carrillo	Sabot School	Round 3 Animal & Human Sciences B (AH-B)	10:20
Niemoller Olivia The Reactions of Cats when Presented with Different Scents	Olivia	Niemoller	Sabot School	Round 3 Animal & Human Sciences B (AH-B)	10:40
Sheth Shiven The Effect of the Location of Oyster Reefs on Lead Accumulation on Oysters	Shiven	Sheth	George H. Moody Middle School	Round 3 Animal & Human Sciences B (AH-B)	11:00
AH-B Judges after last presentation determine places for AH - B					11:20
Lunch Break/Zoom Restart					12:00
AH Head Judges meet in AH-A to determine top AH winner					1:00
Special Judges meet at 4 PM					4:00

CS - Chemical Science - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Dodd Eve, Davis Ainsley The effect of different activators on the stretch of slime	Eve Ainsley	Dodd Grace	Sabot School	Round 3 Chemical Science A (CS-A)	10:00
Ghai Dhruv, "The Effect of pH levels on the removal of rust from iron"	Dhruv	Ghai	George H. Moody Middle School	Round 3 Chemical Science A (CS-A)	10:20
Humphries Eliza, Lee Henry The Effect of different conditions on the erosion of soccer balls measured by mass	Eliza Henry	Humphries Jozef	Sabot School	Round 3 Chemical Science A (CS-A)	10:40
Kaur Ajooni The Effect of Different Types of Salt on the Amount of Time it Takes for Ice to Melt	Ajooni	Kaur	Individual	Round 3 Chemical Science A (CS-A)	11:00
Mamidala Aditya The Effects of Different Liquid on Tooth Enamel	Aditya	Mamidala	Individual	Round 3 Chemical Science A (CS-A)	11:20
Eesha Pellreddy The Effect of Various Amounts of Octyl Salicylate in Soap Mixtures on the Amount of Ultraviolet Radiation Prevented	Eesha	Pellreddy	George H. Moody Middle School	Round 3 Chemical Science A (CS-A)	11:40
Lunch Break/Zoom Restart					12:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
CS A Judges meet after the last presentation to determine places					12:30
CS Head Judges meet in CS-A to determine top CS paper					1:30
Special Judges meet at 4 PM					4:00

CS - Chemical Science - B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Mital Eshaan Effect of common kitchen food wastes on voltage produced by a microbial fuel cell.	Eshaan	Mital	George H. Moody Middle School	Round 3 Chemical Science B (CS-B)	10:00
Park Thomas Salt Showdown: The Effect of Different Types of Salt on the Speed of the Rusting Process	Thomas	Park	Individual	Round 3 Chemical Science B (CS-B)	10:20
Purohit Aditya The effect of the degree of photodegradation of natural and artificial light on the deterioration of Solanum lycopersicum	Aditya	Purohit	George H. Moody Middle School	Round 3 Chemical Science B (CS-B)	10:40
Sambangi Saanvi The Effect of Ayurvedic Oils on the Production of VOCs	Saanvi	Sambangi	George H. Moody Middle School	Round 3 Chemical Science B (CS-B)	11:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Shetty Darsh & The Effect of Different Types of Fruit and Sports Drinks on the Electrolyte Replenishment for Athletes	Saharsh	Shetty	George H. Moody Middle School	Round 3 Chemical Science B (CS-B)	11:20
Shirodkar Vihaan The Effect Of Humidity On Metal Rust in Wood	Vihaan	Shirodkar	George H. Moody Middle School	Round 3 Chemical Science B (CS-B)	11:40
Lunch Break/Zoom Restart					12:00
Thomas-Irvin Juliette Testing the effect of different dish soaps on elephant toothpaste	Juliette	Thomas-Irvin	Sabot School	Round 3 Chemical Science B (CS-B)	12:30
CS B Judges meet after the last presentation to determine places					12:50
CS Head Judges meet in CS-A to determine top CS paper					1:30
Special Judges meet at 4 PM					4:00

EE - Ecology and Earth Sciences

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Saxena Aarav-The Effect of Biodegradable Hydrogels on Biodegradability and its Ability to Soak Up Water	Aarav	Saxena	George H. Moody Middle School	Round 3 Ecology & Earth Sciences (EE)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Chun Kieden, Reibel Lucy, The Effect of Different Types of Pollutants on the Production of Ammonia in Saltwater, Brackish Water, and Freshwater	Kieden Lucy	Chun Reibel	Sabot School	Round 3 Ecology & Earth Sciences (EE)	10:20
Ennis Pol, Padden Sam The Effect of Construction on Wildlife Populations in Lewis G. Larus Park Over 2 Years	Pol Sam	Ennis Wagner	Sabot School	Round 3 Ecology & Earth Sciences (EE)	10:40
Habib Samara The Effect of Fertilizer on Soil pH	Samara	Habib	George H. Moody Middle School	Round 3 Ecology & Earth Sciences (EE)	11:00
Hanger Avery The differences between water parameters in small ponds and the run off of small ponds	Avery	Hanger	Sabot School	Round 3 Ecology & Earth Sciences (EE)	11:20
Jansen Erin When in Drought... Natural Hydrogels as an Alternative Water Resource to Aid Water Retention in Soil	Erin	Jansen	Individual	Round 3 Ecology & Earth Sciences (EE)	11:40
Lunch Break/Zoom Restart					12:00
Kandula Vihaan Effect of the Amount of Eisenia fetida on the pH of Soil	Vihaan	Kandula	George H. Moody Middle School	Round 3 Ecology & Earth Sciences (EE)	12:30
Nath Sanjana The effect of oysters on the turbidity of water	Sanjana	Nath	George H. Moody Middle School	Round 3 Ecology & Earth Sciences (EE)	12:50
Tuteja Hargun The Effect of How Much Water Evaporates on Different Materials	Hargun	Tuteja	George H. Moody Middle School	Round 3 Ecology & Earth Sciences (EE)	1:10

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Zee Rebecca The Effect of Different Fertilizers on Water pH Levels	Rebecca	Zee	Individual	Round 3 Ecology & Earth Sciences (EE)	1:30
EE Judges meet after the last presentation to determine places					1:50
Special Judges meet at 4 PM					4:00

ET - Engineering and Technology

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Nimonkar Riya The Effects of Different Heat Shields on Durability and Heat Over Different Heat Cycles	Riya	Nimonkar	George H. Moody Middle School	Round 3 Engineering & Technology (ET)	10:00
ET Judges meet to determine place					10:20
Lunch Break/Zoom Restart					12:00
Special Judges meet at 4 PM					4:00

HB - Human Behavior

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Aravindan Maya The Effect of a group of musical notes on the various emotions felt by listeners	Maya	Aravindan	George H. Moody Middle School	Round 3 Human Behavior (HB)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Mahesh Advika The effect of different nightly routines on the quality of sleep in school children.	Advika	Mahesh	George H. Moody Middle School	Round 3 Human Behavior (HB)	10:20
Manoj Kumar Vertika, The Effect of Stress on Frustration	Vertika	Manoj Kumar	George H. Moody Middle School	Round 3 Human Behavior (HB)	10:40
Pothunoori Hridhay, Adusumilli Ritvik, The Effect of Screen Time On Efficiency Of Completed Tasks	Hridhay Ritvik	Pothunoori Adusumilli	George H. Moody Middle School	Round 3 Human Behavior (HB)	11:00
Sathyanarayanan Vishrut The Effect of the Color of a Tasteless Liquid on the Perception of its Flavor	Vishrut	Sathyanarayanan	George H. Moody Middle School	Round 3 Human Behavior (HB)	11:20
HB Judges meet after the last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
Special Judges meet at 4 PM					4:00

PA - Physical Science and Astronomy

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Ayalew Maedot The Effects of Seasonal Variation on the Kinematics of Coronal Mass Ejections Using the Solar and Heliospheric Observatory Satellite	Maedot	Ayalew	Individual	Round 3 Physical Science & Astronomy (PA)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Amishi Chopra, The Effect of Different Materials Covering the Stem of the Musa Paradisiaca on Its Enzymatic Browning	Amishi	Chopra	George H. Moody Middle School	Round 3 Physical Science & Astronomy (PA)	10:20
Sankepalli Ananya The Effect of Different Types of Light on the Fading of Fabrics	Ananya	Sankepalli	George H. Moody Middle School	Round 3 Physical Science & Astronomy (PA)	10:40
Shepherd Beckett The Effect of Apple Wrapping on Oxidation Time	Beckett	Shepherd	Individual	Round 3 Physical Science & Astronomy (PA)	11:00
Wong Preston The effect of fibers on UV rays	Preston	Wong	George H. Moody Middle School	Round 3 Physical Science & Astronomy (PA)	11:20
PA Judges meet after the last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
Special Judges meet at 4 PM					4:00

PM - Plant Sciences and Microbiology - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Guo Sophie The Effect Different Drinks Have on the Growth of E.coli	Sophie	Guo	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Mallick, Rajat - The Effect of Soil Type on the Germination and Height of Chili Plants(Capsicum annuum)	Rajat	Mallick	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	10:20
Mehta Saamiya, The Effect of Various Plants on Their Growth Using Hydroponics	Saamiya	Mehta	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	10:40
Naavaal Siddhant The Effect of Sugar Content in Soil on Root Growth and Germination Rate in White Clover (Trifolium repens).	Siddhant	Naavaal	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	11:00
Natarajan Rithik The Effect of Limited Space on Plant Nutrition and Growth	Rithik	Natarajan	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	11:20
Eshaan Patel The Effect of Light Source Color Temperature on CO2 Absorption by Houseplants.	Eshaan	Patel	George H. Moody Middle School	Round 3 Plant Science & Microbiology A (PM-A)	11:40
Lunch Break/Zoom Restart					12:00
PM A Judges meet after last presentation to determine places					12:30
PH Head Judges meet in PM-A to determine top PM Paper					1:00
Special Judges meet at 4 PM					4:00

PM - Plant Sciences and Microbiology - B

Project Title	First Name	Last Name	School	Category and Section	Presentati on Time
Pozzi Lucian, The Effect of Black-strap Molasses as a Foliar Fertilizer on the Propagation and Leaf Growth of the Critically Endangered Species <i>Stachys matthewsii</i>	Lucian	Pozzi	Sabot School	Round 3 Plant Science & Microbiology B (PM-B)	10:00
Puranik Vikram Effect of Salinity on Seed Germination in <i>B. oleracea</i>	Vikram	Puranik	George H. Moody Middle School	Round 3 Plant Science & Microbiology B (PM-B)	10:20
Raol Adityasinh The effect on the number of flies fed to a Venus flytrap in week on its mass.	Adityasinh	Raol	George H. Moody Middle School	Round 3 Plant Science & Microbiology B (PM-B)	10:40
Setty Shreyash The Effect Of Different Weather Conditions On Marigold Flowers	Shreyash	Setty	George H. Moody Middle School	Round 3 Plant Science & Microbiology B (PM-B)	11:00
Singhal Aditya Effect of different application methods of citric acid on the growth of <i>Oryza sativa</i> (rice)	Aditya	Singhal	George H. Moody Middle School	Round 3 Plant Science & Microbiology B (PM-B)	11:20
PM B Judges meet after last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
PM Head Judges meet in PM-A to determine top PM paper					1:00
Special Judges meet at 4 PM					4:00

PM - Plant Sciences and Microbiology - C

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Rudraraju Aarnav The Effect of Different Mediums on the Growth of Pilea Pepermoides Roots	Aarnav	Rudraraju	George H. Moody Middle School	Round 3 Plant Sciences & Microbiology C (PM-C)	10:00
Ujaria Nisarg The Effect of Music on the Growth of Sunflowers	Nisarg	Ujaria	George H. Moody Middle School	Round 3 Plant Sciences & Microbiology C (PM-C)	10:20
Vohra Aasiyah The Effect of Salicylic Acid (HOC6H4COOH) on the Growth Rate of Penicillium italicum	Aasiyah	Vohra	George H. Moody Middle School	Round 3 Plant Sciences & Microbiology C (PM-C)	10:40
Wen Kevin The Effect of Soluble Mineral Compounds on Arugula Growth	Kevin	Wen	George H. Moody Middle School	Round 3 Plant Sciences & Microbiology C (PM-C)	11:00
Vachhani Aarna The Effect of Different Species of Plants on Carbon Dioxide (CO ₂) Levels	Aarna	Vachhani	George H. Moody Middle School	Round 3 Plant Sciences & Microbiology C (PM-C)	11:20
PM C Judges meet after the last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
PM Head Judges meet in PM-A to determine top PM paper					1:00
Special Judges meet at 4 PM					4:00

Presentation Schedule - High School

2024 VJAS Symposium

May 4, 2024



Table of Contents

Table of Contents	23
BOT - Botany - A	24
BOT - Botany - B	25
BOT - Botany - C	26
CHM - Chemistry - A	29
CHM - Chemistry -B	30
COM - Computational Biology - A	33
COM - Computational Biology - B	34
EGR - Engineering - A	35
ENV - Environmental and Earth Science -A	40
MTM - Mathematics: Theoretical and Modeling	48
MDH - Medicine and Health - A	49
MDH - Medicine and Health - B	50
MDH - Medicine and Health - C	52
MDH - Medicine and Health - D	53
MCB - Microbiology and Cell Biology - A	54
MCB - Microbiology and Cell Biology - B	56
MCB - Microbiology and Cell Biology - C	57
PHY - Physics and Astronomy - A	59
PHY - Physics and Astronomy - B	60
PSY - Psychology - A	61
SAI - Statistical Analysis and Inferences	65
ZOO - Zoology - A	66
ZOO - Zoology - B	68

BOT - Botany - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Pabis Scott The Effects of Growth Restrictions on Raphanus sativus	Scott	Pabis	Central Virginia Governor's School for Science and Technology	Round 3 Botany A (BOT-A)	10:00
Patel Dharya The Effect of Natural Fertilizers on Beanstalk Plant Height	Dharya	Patel	Mills E Godwin High School	Round 3 Botany A (BOT-A)	10:20
Radtke Tyler The Effect of the Percentage of Surface Area Coverage of Water Lilies in Walton's Lake on pH, Dissolved Oxygen, and Turbidity Per Plot	Tyler	Radtke	Clover Hill High School	Round 3 Botany A (BOT-A)	10:40
Richardson Graham, The Effect of Chemical Solutions on Pinto Bean Growth	Graham	Richardson	Mills E Godwin High School	Round 3 Botany A (BOT-A)	11:00
Royster Lucas The Effect of Poa pratensis Height on Soil Temperature	Lucas	Royster	Mills E Godwin High School	Round 3 Botany A (BOT-A)	11:20
Siddabattula Siddarth The Effect of Mycorrhiza on Trigonella foenum-graecum in Acidified Soil	Siddarth	Siddabattula	Mills E Godwin High School	Round 3 Botany A (BOT-A)	11:40
Lunch Break/Restart Zoom					12:00
Sooda Saanvi A Comparison of Solute Concentration of Aqueous Fertilizer on Stem Elongation of Hydroponic Fenugreek	Saanvi	Sooda	Mills E Godwin High School	Round 3 Botany A (BOT-A)	12:30
Thornton Catherine How Different Colors of LED Lighting Affect Growth in Wheat Crops	Catherine	Thornton	Central Virginia Governor's School for Science and Technology	Round 3 Botany A (BOT-A)	12:50

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Shruthi Tirunahari The Effect of Overcrowding on Crop Production	Shruthi	Tirunahari	Mills E Godwin High School	Round 3 Botany A (BOT-A)	1:10
BOT A Judges determine places after last presentation					1:30
BOT Head Judges meet in BOT-A determine top Botany Paper					2:30
Special Judges meet at 4 pm					4:00

BOT - Botany - B

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Alberti Victoria The Effect of Compliments and Insults on Plant Growth	Victoria	Alberti			Mills E Godwin High School	Round 3 Botany B (BOT-B)	10:00
Bill Thomas, Yang Leslie, Urine as a Nitrogen Source for Lepidium sativum: Creation of a Novel Synthetic Solid Urine Testing Model and Product	Thomas	Bill	Leslie	Yang	Harrisonburg High School	Round 3 Botany B (BOT-B)	10:20
Bupp Taylor, The Effect of Chemical Fertilizer vs. Rabbit Manure on Grass Growth	Taylor	Bupp			Clover Hill High School	Round 3 Botany B (BOT-B)	10:40
Collins Audrey Testing Honey's Antifungal Properties on the Development of Tomato Wilt (<i>Fusarium oxysporum</i>)	Audrey	Collins			Central Virginia Governor's School for Science and Technology	Round 3 Botany B (BOT-B)	11:00
Dang Andrew The Effect of Different Macronutrient Supplements on Radish Plant Growth	Andrew	Dang			Mills E Godwin High School	Round 3 Botany B (BOT-B)	11:20

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
DeWitt Nicholas The effect of drought on the emergence rate of Glycine Max	Nicholas	DeWitt			Central Virginia Governor's School for Science and Technology	Round 3 Botany B (BOT-B)	11:40
Lunch Break/Zoom Restart							12:00
Ellis Abigael The Effect of Applying Various Types of Sunscreen to the Leaves of Devil's Ivy Plants on the Number of Discolored (Brown Spotted/Yellowed) Leaves, the Number of Fallen Leaves, and the Length of the Roots, Over Time	Abigael	Ellis			Clover Hill High School	Round 3 Botany B (BOT-B)	12:30
Crosby Lindley The Effect of Agricultural Pesticides on the Early Growth and Development of Z. mays	Lindley	Crosby			Central Virginia Governor's School for Science and Technology	Round 3 Botany B (BOT-B)	12:50
BOT B Judges meet to determine places after the last presentation							1:10
BOT Head Judges meet in BOT-A to determine best paper							2:30
Special Judges meet at 4 PM							4:00

BOT - Botany - C

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Methari Anwitha The Effect of nutrient dense waters on height of radish microgreens.	Anwitha	Methari	Mills E Godwin High School	Round 3 Botany C (BOT-C)	10:00
Harwood Natalie Mycorrhizal Fungi and their Relationship with Plant Productivity and Carbon Decomposition	Natalie	Harwood	Collegiate	Round 3 Botany C (BOT-C)	10:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Hensley Madison Comparing Sister Cropping to Various Fertilizers Indoor and Outdoor	Madison	Hensley	Chesapeake Bay Governor's School	Round 3 Botany C (BOT-C)	10:40
Jeyasingh Daniella-The Effect of Arbuscular Mycorrhizal Fungi on Asclepias Syriaca growth in Acidic Soil	Daniella	Jeyasingh	Mills E Godwin High School	Round 3 Botany C (BOT-C)	11:00
Krzyzanowski Anna Salinity Effects on the Growth of Atlantic White Cedar	Anna	Krzyzanowski	Hampton Roads Academy	Round 3 Botany C (BOT-C)	11:20
Makineni Grihith,The Effect of Pest Control on Plants Infested by Pests.	Grihith	Makineni	Mills E Godwin High School	Round 3 Botany C (BOT-C)	11:40
Lunch Break/Zoom Restart					12:00
Lennon Lilly, The Effect of Soil Additive on Basil Growth	Lilly	Lennon	Mills E Godwin High School	Round 3 Botany C (BOT-C)	12:30
Miles Chloe, How Organic and Synthetic Insecticides Affect Marigold Growth	Chloe	Miles	Collegiate	Round 3 Botany C (BOT-C)	12:50
BOT C Judges meet after the last presentation to determine places					1:10
BOT Head Judges meet in BOT-A to determine top BOT paper					2:30
Special Judges meet at 4 PM					4:00

BOT - Botany - D

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Murphy Liam The effect of water placement on root growth	Liam	Murphy	Mills E Godwin High School	Round 3 Botany D (BOT-D)	10:00
Nyffeler Megan The Effect of Herbicides on Photosynthetic Rate	Megan	Nyffeler	Mills E Godwin High School	Round 3 Botany D (BOT-D)	10:20
Olihnenco Abigail The Effect of Relative Humidity on Thyme Growth	Abigail	Olihnenco	Mills E Godwin High School	Round 3 Botany D (BOT-D)	10:40
Vasudev Aditi The Effect of Hydroponic Nutrient Additives on Tomato Growth	Aditi	Vasudev	Mills E Godwin High School	Round 3 Botany D (BOT-D)	11:00
Vasudev Vimridh Exploring the Impact of Arbuscular Mycorrhizal Fungi Presence on Spring Onion Growth Under Environmental Stress Factors	Vimridh	Vasudev	Mills E Godwin High School	Round 3 Botany D (BOT-D)	11:20
Veerapaneni Srivedha The Effect of Banana Stem Covering on Ripening Time	Srivedha	Veerapaneni	Mills E Godwin High School	Round 3 Botany D (BOT-D)	11:40
Lunch Break/Zoom Restart					12:00
Vinjanampati Gauri The Effect of Rhizobia on Vigna radiata Growth in Acidified Soil	Gauri	Vinjanampati	Mills E Godwin High School	Round 3 Botany D (BOT-D)	12:30
Zahra Meraal The Effect of Organic and Inorganic Fertilizers in Field Corn Plants Vitamin C Concentration	Meraal	Zahra	Central Virginia Governor's School for Science and Technology	Round 3 Botany D (BOT-D)	12:50

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Nelson Leighton The Effect of Bioremediating Ammonium Nitrate on Lemna minor	Leighton	Nelson	Central Virginia Governor's School for Science and Technology	Round 3 Botany D (BOT-D)	1:10
BOT D Judges meet after the last presentation to determine places					1:30
BOT Head Judges meet in BOT-A to determine top BOT paper					2:30
Special Judges meet at 4 PM					4:00

CHM - Chemistry - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Fulcher Riley, The Effect on the Carbon Dioxide Levels of Saccharomyces cerevisiae When Used With Various Sugars	Riley	Fulcher	Central Virginia Governor's School for Science and Technology	Round 3 Chemistry A (CHM-A)	10:00
Archer Folasade The Effect of Using Baking Powder versus Different Types of Yeast, as a Leavening Agent, on the Height and Density of Madeleines	Folasade	Archer	Clover Hill High School	Round 3 Chemistry A (CHM-A)	10:20
Heath Clara The Effect of Microwave Popcorn Popping Time and Power Level on the Percentage of Popped, Unpopped, and Burned Kernels	Clara	Heath	Clover Hill High School	Round 3 Chemistry A (CHM-A)	10:40
Bukin Nikolai The Effect of Heating on Emission of Microplastics	Nikolai	Bukin	Mills E Godwin High School	Round 3 Chemistry A (CHM-A)	11:00
Dore Kellan The Effect of Amount of Time Exposed to Ultraviolet Light on Acrylic Paint Drying Time	Kellan	Dore	Clover Hill High School	Round 3 Chemistry A (CHM-A)	11:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Flores Abigail Lynn The Effect of Painting Oak Wood with Three Different Colors of Acrylic Paint, and Exposing the Paintings to Sunlight, Artificial Light, and No Light on the Difference in RGB Values Over Time	Abigail Lynn	Flores	Clover Hill High School	Round 3 Chemistry A (CHM-A)	11:40
Lunch Break/Zoom Restart					12:00
Gogineni Shayni The Effect of Testing the Glucose Levels in Four Different Types of Fruit, Before and After Cooking the Fruits, on the Resultant Glucose Levels in each Type of Fruit	Shayni	Gogineni	Clover Hill High School	Round 3 Chemistry A (CHM-A)	12:30
Greer Meredith The Effect of Using Cage Free, Free Range, Pasture-Raised, and Caged Eggs in a Cupcake Recipe on the Resultant Density of the Cupcake	Meredith	Greer	Clover Hill High School	Round 3 Chemistry A (CHM-A)	12:50
CHM A Judges met after the last presentation to determine places					1:10
CHM Head Judges meet in CHM-A to determine the best CHM paper					2:00
Special Judges meet at 4 PM					4:00

CHM - Chemistry -B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Hoerter Ruby The Concentration of Vitamin C In Non-Organic and Organic Fruits and Vegetables	Ruby	Hoerter	Southwest Virginia Governor's School	Round 3 Chemistry B (CHM-B)	10:00
Kalore Anaya, The Effect of Different Soils on Metal Corrosion	Anaya	Kalore	Mills E Godwin High School	Round 3 Chemistry B (CHM-B)	10:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Kannure Manasvi The Effect of Aloe Vera on Inhibition of Steel Corrosion	Manasvi	Kannure	Mills E Godwin High School	Round 3 Chemistry B (CHM-B)	10:40
Malik Zainah The Effect of Lipase on the Degradation of Different Microplastics	Zainah	Malik	Mills E Godwin High School	Round 3 Chemistry B (CHM-B)	11:00
Martin Cole The Effect of Ripeness of Banana (Days Since Purchase) on the Height of Banana Bread	Cole	Martin	Clover Hill High School	Round 3 Chemistry B (CHM-B)	11:20
Mathew Ana-The Effect of Various Novel Adsorbents on Methylene Blue Adsorption	Anya	Mathew	Mills E Godwin High School	Round 3 Chemistry B (CHM-B)	11:40
Lunch Break/Zoom Restart					12:00
Modi Aditya Effect of Various Teas and Remedies on Neutralizing Stomach Acid	Aditya	Modi	Mills E Godwin High School	Round 3 Chemistry B (CHM-B)	12:30
CHM B Judges meet after last presentation to determine places					12:50
CHM Head Judges meet in CHM-A to determine top CHM paper					2:00
Special Judges meet at 4 PM					4:00

CHM - Chemistry -C

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Woo Julianne The Effect of Chlorine Concentration of the Water that Hair is Soaked in on the Change in Color of the Hair	Julianne	Woo	Clover Hill High School	Round 3 Chemistry C (CHM-C)	10:00
Nareddy Tanvi The Effect of UVB Light Radiation on the Photodegradation of β -carotene	Tanvi	Nareddy	Mills E Godwin High School	Round 3 Chemistry C (CHM-C)	10:20
Pillai Neha The Effect of Road Salt on the Corrosion of Automobile Parts	Neha	Pillai	Mills E Godwin High School	Round 3 Chemistry C (CHM-C)	10:40
Sagini Ryan The Effect of Various Chemical Agents on the Permeability of Latex Gloves	Ryan	Sagini	Clover Hill High School	Round 3 Chemistry C (CHM-C)	11:00
Shah Vidhi The Effect of Various Sweeteners, Used in a Kombucha Recipe, on the pH of the Kombucha, Over Time	Vidhi	Shah	Clover Hill High School	Round 3 Chemistry C (CHM-C)	11:20
Strang Kyler The Effect of Battery Charge on Battery Reactivity	Kyler	Strang	Arlington Career Center	Round 3 Chemistry C (CHM-C)	11:40
Lunch Break/Zoom Restart					12:00
Talajia Disha Nutritional Content of Bananas Over Periods of Time	Disha	Talajia	Southwest Virginia Governor's School	Round 3 Chemistry C (CHM-C)	12:30
CHM C Judges meet after the last presentation to determine places					12:50
CHM Head Judges meet in CHM-A to determine top CHM paper					2:00
Special Judges meet at 4 PM					4:00

COM - Computational Biology - A

Presentation Title	First Name	Last Name	School	Category and Section	Presentation Time
Beasley Connor Metagenomic Analysis of the Microbial Biodiversity in Soil of Mountain Balds in Appalachia	Connor	Beasley	Southwest Virginia Governor's School	Round 3 Computational Biology A (COM-A)	10:00
Gandhari Ashrita Minimizing In-Vitro Fertilization Failures by Utilizing Artificial Intelligence to Evaluate the Health of Human Embryos	Ashrita	Gandhari	Thomas Jefferson High School for Science and Technology	Round 3 Computational Biology A (COM-A)	10:20
Ganesh Taarun In silico design of a multi-epitope-based vaccine against the Rocio virus	Taarun	Ganesh	Individual	Round 3 Computational Biology A (COM-A)	10:40
Jaddu Shriya SeizAlert: A Deep-Learning Enabled System for Non-Invasive Pre-Ictal Seizure Prediction	Shriya	Jaddu	Individual	Round 3 Computational Biology A (COM-A)	11:00
Jaddu Sidh Investigating the Factors Affecting the Spread of the Opioid Epidemic Using Machine Learning	Sidh	Jaddu	Individual	Round 3 Computational Biology A (COM-A)	11:20
COM A Judges meet after the last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
COM Head Judges meet in COM-A to determine top COM paper					1:30
Special Judges meet at 4 PM					4:00

COM - Computational Biology - B

Presentation Title	First Name	Last Name	School	Category and Section	Presentation Time
Sweeney Aidan How to Detect AI in Order to Promote Academic Integrity	Aidan	Sweeney	Chesapeake Bay Governor's School	Round 3 Computational Biology B (COM-B)	10:00
Shea Brennan The Effect of Various Mutation Rates in an AI Pathfinding Experiment on Number of Generations Until Path to the Finish Line was Found	Brennan	Shea	Clover Hill High School	Round 3 Computational Biology B (COM-B)	10:20
Kulkarni Rohit Adversarially-Driven Generation of De Novo Proteins for Therapeutic Drug Design	Rohit	Kulkarni	Freedom High School	Round 3 Computational Biology B (COM-B)	10:40
Singamaneni Yashvanth Anisotropic Protein Secretions: Using Computer Vision to reveal insights into macrophages infected with Mycobacterium Tuberculosis	Yashvanth	Singamaneni	Individual	Round 3 Computational Biology B (COM-B)	11:00
Rudraraju Aarush The Effect of Neurotransmitters on Synaptic Plasticity: Computational Simulation	Aarush	Rudraraju	Mills E Godwin High School	Round 3 Computational Biology B (COM-B)	11:20
Sabharwal Yashvir NephroNet: A Novel Program for Identifying Renal Cell Carcinoma and Generating Synthetic Training Images with Convolutional Neural Networks and Diffusion Models	Yashvir	Sabharwal	Individual	Round 3 Computational Biology B (COM-B)	11:40
Lunch Break/Zoom Restart					12:00
COM B Judges meet after last presentation to determine places					12:30
COM Head Judges meet in COM-A to determine top COM paper					1:30
Special Judges meet at 4 PM					4:00

EGR - Engineering - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Bradshaw Ava Effect of Maximum Plantar Flexion Angle of a Transtibial Prosthesis on Unilateral Amputee Gait Symmetry	Ava	Bradshaw	Central Virginia Governor's School for Science and Technology	Round 3 Engineering A (EGR-A)	10:00
Ashman Chris The Effect of Cyanoacrylate on the Elasticity Modulus of PVA Hydrogels for Cartilage Repair	Christopher	Ashman	Central Virginia Governor's School for Science and Technology	Round 3 Engineering A (EGR-A)	10:20
Barron Asher The Effect of Varied Load Resistance on the Power Produced By a Hydroelectric Turbine	Asher	Barron	Central Virginia Governor's School for Science and Technology	Round 3 Engineering A (EGR-A)	10:40
Fitzgerald Joseph The Effect Of Fiberglass on the Freeze-Thaw Change in Compressive Strength of Pervious Concrete	Joseph	Fitzgerald	Central Virginia Governor's School for Science and Technology	Round 3 Engineering A (EGR-A)	11:00
Canada Tripp, The Effect of the Leading Edge on the Lift-to-Drag-Ratio of an Airfoil	Tripp	Canada	Central Virginia Governor's School for Science and Technology	Round 3 Engineering A (EGR-A)	11:20
Cabral Alexander The Effect of Acoustic Horn Exit Hole Size on the Volume of the Exiting Soundwave	Alexander	Cabral	Clover Hill High School	Round 3 Engineering A (EGR-A)	11:40
Lunch Break/Zoom Restart					12:00
Bahrambegi Cyrus Analyzing Sustainable Energy Production Using Anaerobic Cellular Respiration from Microorganisms Derived from a Modified Microbial Fuel Cell System	Cyrus	Bahrambegi	Individual	Round 3 Engineering A (EGR-A)	12:30
Cohen Gabriel An Investigation Into the EEG Capabilities of the Star Wars Force Trainer II	Gabriel	Cohen	Individual	Round 3 Engineering A (EGR-A)	12:50

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Bothra Sanaya The Effect of Transcranial Magnetic Stimulation on the Resistivity of a Fiber Based Synaptic Devices	Sanaya	Bothra	Individual	Round 3 Engineering A (EGR-A)	1:10
Achanta Sriman NN-based Deep Learning Skin Cancer Classification Using Dermoscopic Images	Sriman	Achanta	Mills E Godwin High School	Round 3 Engineering A (EGR-A)	1:30
EGR A Judges meet after the last presentation to determine places					1:50
EGR Head Judges meet in EGR-A to determine the top EGR paper					2:30
Special Judges meet at 4 PM					4:00

EGR - Engineering - B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Layman, Carson The Correlation Among Rotor Diameters and Wind Turbine Power Generation	Carson	Layman	Central Virginia Governor's School for Science and Technology	Round 3 Engineering B (EGR-B)	10:00
Gitta Abhinav Cataract Detection with Machine Learning	Abhinav	Gitta	Individual	Round 3 Engineering B (EGR-B)	10:20
Goodwin Savannah The Effect of Bridge Deck Structure on Resistance to Downward Loading Force	Savannah	Goodwin	Central Virginia Governor's School for Science and Technology	Round 3 Engineering B (EGR-B)	10:40
Hasan Zayd Designing A Compact Cost-Effective Bioprinting Platform	Zayd	Hasan	Mathematics and Science Academy at Ocean Lakes High School	Round 3 Engineering B (EGR-B)	11:00
Haskin Andrew The Effect of the Application of Various Chemical Additives, onto the Golf Club, on the Distance the Ball Travels, Spin Rate, and Launch Angle	Andrew	Haskin	Clover Hill High School	Round 3 Engineering B (EGR-B)	11:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Jansen Hannah Impact of Toroidal Propeller Design on Unmanned Aerial Vehicle Acoustic Signature and Aerodynamic Performance	Hannah	Jansen	Governor's School @ Innovation Park	Round 3 Engineering B (EGR-B)	11:40
Lunch Break/Zoom Restart					12:00
Kambham Rishab The Effect of Electrode Location on Brain Activity	Rishab	Kambham	Mills E Godwin High School	Round 3 Engineering B (EGR-B)	12:30
Larimer Laura, The Effect of Wind Speed, in a Wind Tunnel, on Amount of Damage to Model Houses, Measured by Number of House Pieces Removed During Simulated Wind Storm	Laura	Larimer	Clover Hill High School	Round 3 Engineering B (EGR-B)	12:50
Grohs Zach The Effects of Gasoline Additives on the Efficiency of Internal Combustion Engines	Zach	Grohs	Central Virginia Governor's School for Science and Technology	Round 3 Engineering B (EGR-B)	1:10
Guo Calvin The Effect of Salt Water Fuel Cell Wall Spacing on the Generation of Energy	Calvin	Guo	Central Virginia Governor's School for Science and Technology	Round 3 Engineering B (EGR-B)	1:30
EGR B Judges meet after the last presentation to determine places					1:50
EGR Head Judges meet in EGR-A to determine top EGR paper					2:30
Special Judges meet at 4 PM					4:00

EGR - Engineering - C

Presentation Title	First Name	Last Name	School	Category and Section	Presentation Time
Li Alexander, Enhancing Driving Safety Via Real Time Suppression of Radar Interference	Alexander	Li	Blacksburg High School	Round 3 Engineering C (EGR-C)	10:00

Presentation Title	First Name	Last Name	School	Category and Section	Presentation Time
Miller Madeline Developing a Method for Aquaculture of a Local Polychaete Worm to Replace Imported Bloodworms	Madeline	Miller	Chesapeake Bay Governor's School	Round 3 Engineering C (EGR-C)	10:20
Morin Andrew The Effect of Various Soundproofing Materials and Various Decibel Levels on the Number of Decibels that Pass Through the Materials	Andrew	Morin	Clover Hill High School	Round 3 Engineering C (EGR-C)	10:40
Penumudi Aashritha SpecuSafe: A Non-invasive and Intelligent Approach to Cervical Examinations	Aashritha	Penumudi	Individual	Round 3 Engineering C (EGR-C)	11:00
Pisolkar Kiran The Effect of Sand Composition on the Amount of Heat Stored For Potential Use as a Sand Battery	Kiran	Pisolkar	Clover Hill High School	Round 3 Engineering C (EGR-C)	11:20
Sambangi Sriharsha-Synergizing Scaffold Micro-Architectures and Mechanical Stimuli to Enhance Engineered Tissue Growth	Sriharsha	Sambangi	Individual	Round 3 Engineering C (EGR-C)	11:40
Lunch Break/Zoom Restart					12:00
Shah Sanay, The Effect of Parameter Count on Aerial Trash Detection Accuracy	Sanay	Shah	Central Virginia Governor's School for Science and Technology	Round 3 Engineering C (EGR-C)	12:30
Phillips Margaret The Effect of Price on Cello String Performance	Margaret	Phillips	Central Virginia Governor's School for Science and Technology	Round 3 Engineering C (EGR-C)	12:50
Ploch Sebastian The Electromagnetic Shielding Capability of Different Materials	Sebastian	Ploch	Central Virginia Governor's School for Science and Technology	Round 3 Engineering C (EGR-C)	1:10
Putnam Linus The Effects of Differing pH Water on Concrete's Compressive Strength	Linus	Putnam	Central Virginia Governor's School for Science and Technology	Round 3 Engineering C (EGR-C)	1:30
EGR C Judges meet after the last presentation to determine places					1:50

Presentation Title	First Name	Last Name	School	Category and Section	Presentation Time
EGR Head Judges meet in EGR-A to determine the top EGR paper					2:30
Special Judges meet at 4 PM					4:00

EGR - Engineering - D

Presentation Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Stickle Alec The Effect of Stride Length on Piezoelectric Generation While Walking	Alec	Stickle					Central Virginia Governor's School for Science and Technology	Round 3 Engineering D (EGR-D)	10:00
Whitmore Cullen Microscopic Analysis of Decay Potential of Dental Implants in Vinegar	Cullen	Whitmore					Central Virginia Governor's School for Science and Technology	Round 3 Engineering D (EGR-D)	10:20
Sisson Isabella The Effect of Different Paint Colors on the Rate of Heating/Cooling of Water over Time	Isabella	Sisson					Clover Hill High School	Round 3 Engineering D (EGR-D)	10:40
Wilt Kallen The Effect of Brand of Tennis Shoes on Difference in Tread Depth Over Time After Simulation of Running	Kallen	Wilt					Clover Hill High School	Round 3 Engineering D (EGR-D)	11:00
Uddin Zaara, Amaya Rocha Ninette, Ben Chouikha Yaseen CO-Clean: Filtering Emissions for a Better Future	Zaara	Uddin	Ninette	Amaya Rocha	Yaseen	Ben Chouikha	Governor's School @ Innovation Park	Round 3 Engineering D (EGR-D)	11:20
Vithoukias Tess The Effect of Different Solar Still Condenser Shapes on the Rate of Distillation	Tess	Vithoukias					John Randolph Tucker High School	Round 3 Engineering D (EGR-D)	11:40
Lunch Break/Zoom Restart									12:00

Presentation Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Sunilkumar, Aditya The Effect of Sidepod Type on Vehicle Performance	Aditya	Sunilkumar					Mills E Godwin High School	Round 3 Engineering D (EGR-D)	12:30
Williams Kyler Effects of Supportive Insoles on Foot Pressure and Performance During Soccer Movements	Kyler	Williams					Blacksburg High School	Round 3 Engineering D (EGR-D)	12:50
Yeri Varun The Effect of Various Dielectric Composites on Observed Capacitance in a Capacitor	Varun	Yeri					Mills E Godwin High School	Round 3 Engineering D (EGR-D)	1:10
Yi Anna Comparing the Changes in Temperature of Sustainable Insulation Materials	Anna	Yi					Central Virginia Governor's School for Science and Technology	Round 3 Engineering D (EGR-D)	1:30
EGR D Judges meet after the last presentation to determine places									1:50
EGR Head Judges meet in EGR-A to determine top EGR paper									2:30
Special Judges meet at 4 PM									4:00

ENV - Environmental and Earth Science -A

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Abdelbagi Amna The Effect of Different Levels of Salt Concentration on Plant Growth	Amna	Abdelbagi					Arlington Career Center	Round 3 Environmental & Earth Science A (ENV-A)	10:00
Ackleson Emma The Effect of Pseudomonas fluorescens and Bacillus cereus on the Degradation of Microplastics.	Emma	Ackleson					Washington Liberty High School	Round 3 Environmental & Earth Science A (ENV-A)	10:20

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Alsheikh Khadeejah, Minter Kayla, Weeks Willow Putative Toxins and their Effect on Copepods in the Chesapeake Bay	Khadeejah	Alsheikh	Willow	Weeks	Kayla	Minter	Governor's School @ Innovation Park	Round 3 Environmental & Earth Science A (ENV-A)	10:40
Amundson Clara, The Effect of Smoke from Various Burnt Materials on the Height Difference of Cat Grass	Clara	Amundson					Individual	Round 3 Environmental & Earth Science A (ENV-A)	11:00
Ahmad Sajeela The Effect of Toxic and Green Detergent on Red Worms (Eisenia Fetida)	Sajeela	Ahmad					Individual	Round 3 Environmental & Earth Science A (ENV-A)	11:20
Yadav Anshika-The Effect of Polluted Water Runoff on Daphnia magna	Anshika	Yadav					Mills E Godwin High School	Round 3 Environmental & Earth Science A (ENV-A)	11:40
Lunch Break/Zoom Restart									12:00
Althaus Joshua The Effect of Pyrethrin-Based Pesticide on Pill Bug Activity	Joshua	Althaus					Mills E Godwin High School	Round 3 Environmental & Earth Science A (ENV-A)	12:30
Anderson Marianna The Effect of Ocean Acidification on the Photosynthetic Efficiency of Dictyota dichotoma and Halimeda opuntia	Marianna	Anderson					Collegiate	Round 3 Environmental & Earth Science A (ENV-A)	12:50
Swenson Alexandria Mean Frequencies of Microplastics in Commercially Processed Equine Feeds	Alexandria	Swenson					Southwest Virginia Governor's School	Round 3 Environmental & Earth Science A (ENV-A)	1:10
Aggarwal Swati Evaluating Homemade and Industrial Rust Removers on Steel Metal	Swati	Aggarwal					Southwest Virginia Governor's School	Round 3 Environmental & Earth Science A (ENV-A)	1:30
ENV A Judges meet after last presentation to determine places									1:50

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
ENV Head Judges meet in ENV-A to determine top ENV paper									2:30
Special Judges meet at 4 PM									4:00

ENV - Environmental and Earth Science -B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Biddlecomb Nathalie The Effect of Varying Baits Used in Crab Pots on the Quality of Crabs Caught	Nathalie	Biddlecomb	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science B (ENV-B)	10:00
Douglass Taylor, Alternative Natural Air Filter Media Impact on Air Quality	Taylor	Douglass	Central Virginia Governor's School for Science and Technology	Round 3 Environmental & Earth Science B (ENV-B)	10:20
Eubanks Annie The Effect of Superabsorbent Polymer Composition on Water Retention of Hydrogels	Annie	Eubanks	Mills E Godwin High School	Round 3 Environmental & Earth Science B (ENV-B)	10:40
Falgui Bridget The Effect of Heavy Metal Concentration (Lead (II) Nitrate) on Daphnia magna Heart Rate	Bridget	Falgui	Mills E Godwin High School	Round 3 Environmental & Earth Science B (ENV-B)	11:00
Frias Abigail The Effect of Types of Wood, Soaked in Water for Prolonged Periods of Time, on the Difference Between the Initial Circumference and Final Circumference and the Difference Between the Initial Weight and the Final Weight	Abby	Frias	Clover Hill High School	Round 3 Environmental & Earth Science B (ENV-B)	11:20
Gitre Xavier The Impact of Environmental Methylmercury Exposure on the Feeding Rates of Invertivorous Passerines	Xavier	Gitre	Blacksburg High School	Round 3 Environmental & Earth Science B (ENV-B)	11:40
Lunch Break/Zoom Restart					12:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Haq Mishaal The Effect of Activated Carbon on the Quantity of Chlorine in Water	Mishaal	Haq	Mills E Godwin High School	Round 3 Environmental & Earth Science B (ENV-B)	12:30
Emily Paul Creating a Close Chamber System to Measure Carbon Dioxide Efflux From Far North Environments	Emily	Paul	Southwest Virginia Governor's School	Round 3 Environmental & Earth Science B (ENV-B)	12:50
ENV B Judges meet after the last presentation to determine places					1:10
ENV Head Judges meet in ENV-A to determine top ENV paper					2:30
Special Judges meet at 4 PM					4:00

ENV - Environmental and Earth Science -C

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Hospodar Libbie Examining Autochthonous Alternatives to Tropical Coconut Coir for Shoreline Engineering	Libbie	Hospodar					Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science C (ENV-C)	10:00
Jacob Riya, Gaddam Siri, Enhancing the Nutritive Content of Brassica Oleracea Using a Fruit Material Fortified Nutrient Solution	Riya	Jacob	Siri	Gaddam			Academies of Loudoun	Round 3 Environmental & Earth Science C (ENV-C)	10:20
Judy Emily The Effects of Different Types of Sunscreen on the Growth of a Dinoflagellate Mixture	Emily	Judy					Central Virginia Governor's School for Science and Technology	Round 3 Environmental & Earth Science C (ENV-C)	10:40
Khan Amina The Filtration of Microplastics Using Lemna Minor	Amina	Khan					Central Virginia Governor's School for Science and Technology	Round 3 Environmental & Earth Science C (ENV-C)	11:00

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Kildoo Davis, A Cost-Based Risk Assessment of Climate Events for the Southeastern US	Davis	Kildoo					Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science C (ENV-C)	11:20
Kirubaharan Diyaa The Effect of Sunscreen on Heart Rate of Daphnia Manga	Diyaa	Kirubaharan					Mills E Godwin High School	Round 3 Environmental & Earth Science C (ENV-C)	11:40
Lunch Break/Zoom Restart									12:00
Lahmers Sage Relationship Between Below Ground Biomass and Soil Organic Matter: a Case Study in Mt Tabor, Blacksburg	Sage	Lahmers					Blacksburg High School	Round 3 Environmental & Earth Science C (ENV-C)	12:30
Isabelle Hoover, Zainab Soofi, Lauren Kim Discovering the effect of anthropogenic vibrations on the behaviors and development of Artemia salina	Zainab	Soofi	Isabelle	Hoover	Lauren	Kim	Governor's School @ Innovation Park	Round 3 Environmental & Earth Science C (ENV-C)	12:50
ENV C Judges meet after the last presentation to determine places									1:10
ENV Head Judges meet in ENV-A to determine top ENV paper									2:30
Special Judges meet at 4 PM									4:00

ENV - Environmental and Earth Science -D

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Leo Layla The Impact of Livestock Antibiotics on Marsh Microbes	Layla	Leo	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science D (ENV-D)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Logan Taylor, The Effect of Temperature Stress on the Filtration Rate of 3 Different Bivalves	Taylor	Logan	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science D (ENV-D)	10:20
Matos Emma The Effect of an Adsorbent Raw Bamboo Filter on a Sustainable Removal of Methylene Blue Dyes from Wastewater	Emma	Matos	Mills E Godwin High School	Round 3 Environmental & Earth Science D (ENV-D)	10:40
Micket Camryn, Fighting Global Warming's Evil Twin: A Study on Alkalinity and Calcium Buffering Capacity in the Lower Chesapeake Bay	Cameron	Micket	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science D (ENV-D)	11:00
Ransone Bevan Prevalence of Macroparasites <i>Polydora websteri</i> and <i>Zaops ostreus</i> Within <i>Crassostrea virginica</i> in Varying Environmental Conditions.	Christopher	Ransone	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science D (ENV-D)	11:20
Sridhar Sriya Enzymatic Engineering for Enhanced Plastic Degradation in a Novel Plasmid System	Sriya	Sridhar	Blacksburg High School	Round 3 Environmental & Earth Science D (ENV-D)	11:40
Lunch Break/Zoom Restart					12:00
Sundarrajan Pranav The Effect of Citric Acid on Heavy Metal Rhizofiltration Efficiency	Pranav	Sundarrajan	Mills E Godwin High School	Round 3 Environmental & Earth Science D (ENV-D)	12:30
Mary Ann Zyglocke Impact of Different Levels of Sunlight on Dissolved Oxygen Produced by <i>Elodea canadensis</i>	Mary	Zyglocke	Collegiate	Round 3 Environmental & Earth Science D (ENV-D)	12:50
ENV D Judges meet after the last presentation to determine places					1:10
ENV Head Judges meet in ENV-A to determine top ENV paper					2:30
Special Judges meet at 4 PM					4:00

ENV - Environmental and Earth Science - E

Presentation Time	First Name	Last Name	School	Category and Section	Presentation Time
Schrader Jack The Effect of Land Gradients on Erosion Risk	Jack	Schrader	Central Virginia Governor's School for Science and Technology	Round 3 Environmental & Earth Science E (ENV-E)	10:00
Tristan Fields The effect of A. platensis-containing water-like growth mediums on pH variation	Tristan	Fields	Mills E Godwin High School	Round 3 Environmental & Earth Science E (ENV-E)	10:20
Murphy Caitlin Exploring the Use of Reclaimed Eutrophic Water for Growing Butterhead Lettuce (<i>Lactuca sativa</i> var. <i>capitata</i>) in a Hydroponic System	Caitlin	Murphy	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science E (ENV-E)	10:40
Nayak Aarav The Effect of Different Oil Filters on Oil Filtered	Aarav	Nayak	Mills E Godwin High School	Round 3 Environmental & Earth Science E (ENV-E)	11:00
Ohlschlager Lily, <i>Hydrilla verticillata</i> in the Chickahominy River- Are All Invaders Really Bad?	Lily	Ohlschlager	Chesapeake Bay Governor's School	Round 3 Environmental & Earth Science E (ENV-E)	11:20
Saravanan Barathi-The Effect of Hydrocolloid Edible Coatings on Ripening of Bananas	Barathi	Saravanan	Mills E Godwin High School	Round 3 Environmental & Earth Science E (ENV-E)	11:40
Lunch Break/Zoom Restart					12:00
Siminiceanu Eva The Effect of Decreased Environmental pH on the Rate of Clam Filtration	Eva	Siminiceanu	Collegiate	Round 3 Environmental & Earth Science E (ENV-E)	12:30

Presentation Time	First Name	Last Name	School	Category and Section	Presentation Time
Weston Smith The Influence of UV-A & Infrared Exposure on The Reproductive Capabilities of The Cyanobacteria of Southwest Virginia	Weston	Smith	Southwest Virginia Governor's School	Round 3 Environmental & Earth Science E (ENV-E)	12:50
ENV E Judges meet after the last presentation to determine places					1:10
ENV Head Judges meet in ENV-A to determine top ENV paper					2:30
Special Judges meet at 4 PM					4:00

ENV - Environmental and Earth Science -F

Presentation Time	First Name	Last Name	School	Category and Section	Presentation Time
Ochoa William, Using The Most Common Food Waste In America To Produce biogas	William	Ochoa	Chesapeake Bay Governor's School	Round 3 Environmental Science F (ENV-F)	10:00
Oluwaji Olawande Filtering Efficiency of Daphnia magna in Response to Low and High Anabaena Concentrations	Olawande	Oluwaji	Central Virginia Governor's School for Science and Technology	Round 3 Environmental Science F (ENV-F)	10:20
Parashar Anika The Effect of Different Substrates on the Efficiency of a Waste-Based Microbial Fuel Cell	Anika	Parashar	Individual	Round 3 Environmental Science F (ENV-F)	10:40
Phillips Charlotte, Investigating Degradation of Polyhydroxyalkanoate Straws in Saltwater Environments with Varying Temperatures, and in Presence of Turbo marmoratus and Lysmata wurdemanni	Charlotte	Phillips	Southwest Virginia Governor's School	Round 3 Environmental Science F (ENV-F)	11:00
Saidou Sakeena A Call to Action! Changes in Glycine max Photosynthesis Rates According to UV-B Intensities	Sakeena	Saidou	Central Virginia Governor's School for Science and Technology	Round 3 Environmental Science F (ENV-F)	11:20
Shrestha Arnav, The Effect of Algae Species Simulated Growth on Carbon Dioxide Reduction Efficiency	Arnav	Shrestha	Mills E Godwin High School	Round 3 Environmental Science F (ENV-F)	11:40

Presentation Time	First Name	Last Name	School	Category and Section	Presentation Time
Lunch Break/Zoom Restart					12:00
South Caroline Effect of Digestive Enzymes on Cellulose Microplastics	Caroline	South	Individual	Round 3 Environmental Science F (ENV-F)	12:30
Samantha Winter The Effect of Rain on Stream pH	Samantha	Winter	Mills E Godwin High School	Round 3 Environmental Science F (ENV-F)	12:50
ENV F Judges meet after the last presentation to determine places					1:10
ENV Head Judges meet in ENV-A to determine the best ENV paper					2:30
Special Judges meet at 4 PM					4:00

MTM - Mathematics: Theoretical and Modeling

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Bandla Shriya Using Modeling Techniques to Predict the Likelihood of Heart Disease	Shriya	Bandla	Mills E Godwin High School	Round 3 Mathematics: Theoretical & Modeling (MTM)	10:00
Guo Angelina A Highly Accurate Detection of Glaucoma with Neural Networks - A Case Study for Early Detection	Angelina	Guo	Central Virginia Governor's School for Science and Technology	Round 3 Mathematics: Theoretical & Modeling (MTM)	10:20
Kumar Devesh An Ensemble Approach for Improving Model-Based Reinforcement Learning in Robotic Control	Devesh	Kumar	Individual	Round 3 Mathematics: Theoretical & Modeling (MTM)	10:40
Canon Robins Sports Analytics: Using Multiple Regression to Predict the Outcomes of NBA Games	Canon	Robins	Mathematics and Science Academy at Ocean Lakes High School	Round 3 Mathematics: Theoretical & Modeling (MTM)	11:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Tadinada Abhinav AI-Powered Renewable Energy Forecasting	Abhinav	Tadinada	Mills E Godwin High School	Round 3 Mathematics: Theoretical & Modeling (MTM)	11:20
MTM Judges meet after the last presentation to determine places					11:40
Lunch Break/Zoom Restart					12:00
Special Judges meet at 4 PM					4:00

MDH - Medicine and Health - A

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation time
Abuan Jullian The Effect of Artificial Axillary Hair Length on Transepidermal Water Loss on Agar	Jullian	Abuan					Mills E Godwin High School	Round 3 Medicine & Health A (MDH-A)	10:00
Ambati Vidya Recasting an anti-psychotic as a prevention for multiple arthritides: Discovery of a novel receptor and mechanism of action	Vidya	Ambati					Individual	Round 3 Medicine & Health A (MDH-A)	10:20
Baccouche Aisha, Bilal Maryam, Lahbabi Soukayna The Effect of Phytotherapies on Hyperglycemic Induced C. elegans	Aisha	Baccouche	Soukayna	Lahbabi	Maryam	Bilal	Governor's School @ Innovation Park	Round 3 Medicine & Health A (MDH-A)	10:40
Chandran Ria The Effect of Pharmacodynamic Constituents on KRAS Protein of Metastatic Pancreatic Cancer	Ria	Chandran					Mills E Godwin High School	Round 3 Medicine & Health A (MDH-A)	11:00
Dalton Laura The Correlation Between Surface Temperature and Heart Disease Incidents within Ethnic Groups	Laura	Dalton					Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health A (MDH-A)	11:20

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation time
Datta Tvisha, Datta Mahika Optimizing Melatonin-Based Interventions through Aromatherapy with Herbal Essential Oils for Circadian Rhythm Regulation and Thalamus Function Activity	Tvisha	Datta	Mahika	Datta			Governor's School @ Innovation Park	Round 3 Medicine & Health A (MDH-A)	11:40
Lunch Break/Zoom Restart									12:00
BSEPV2: Designing A Novel Protein with enhanced ATP Binding Capabilities Utilizing AI-Assisted Predictions of Molecular Evolution for Effective Treatment of Progressive Familial Intrahepatic Cholestasis (PFIC)	Khartik	Uppalapati	Viraj	Kamath			Oakton High School	Round 3 Medicine & Health A (MDH-A)	12:30
Blair Aliyah The Effect of the COVID-19 pandemic on OCD related cleaning habits	Aliyah	Blair					Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health A (MDH-A)	12:50
Chang Taylor The Effects of Daily Stretching	Taylor	Chang					Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health A (MDH-A)	1:10
MDH A Judges meet after the last presentation to determine places									1:30
MDH Head Judges meet in MDH-A to determine the top MDH paper									2:00
Special Judges meet at 4 PM									4:00

MDH - Medicine and Health - B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Effects of Sanitization and Desk Setup on Bacteria Concentration	Nisah	Allauddin	Collegiate	Round 3 Medicine & Health B (MDH-B)	10:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Ganti Tanvi The Effect of Organophosphate Insecticides on the Growth of Heat-Stressed Planaria	Tanvi	Ganti	Mills E Godwin High School	Round 3 Medicine & Health B (MDH-B)	10:20
Garrison Meg The Effect of Artistic Movements on the Symptoms of Parkinson's Disease	Meg	Garrison	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health B (MDH-B)	10:40
Hewitt Ashley Studying the Similarities of Lucidity in Alzheimer's Disease and Lucid Dreaming with Galantamine	Ashley	Hewitt	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health B (MDH-B)	11:00
Huizar Evan Impact of SCP2 Deficiency on Hepatic Metabolic Profiling in a Murine Model of MAFLD	Evan	Huizar	Mills E Godwin High School	Round 3 Medicine & Health B (MDH-B)	11:20
Diya Johar The Effect of Antibacterial Hand Soap on the Amount of "Bacteria" removed	Diya	Johar	Mills E Godwin High School	Round 3 Medicine & Health B (MDH-B)	11:40
Lunch Break/Zoom Restart					12:00
Hiner Reilly The Multigenerational Effects of Propylparaben Exposure on Drosophila melanogaster Reproduction	Reilly	Hiner	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health B (MDH-B)	12:30
Hughes Holden The Effect of Fibromyalgia Syndrome on Anxiety and Depression In Women	Holden	Hughes	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health B (MDH-B)	12:50
MDH B Judges meet after the last presentation to determine places					1:10
MDH Head Judges meet in MDH-A to determine top MDH paper					2:00
Special Judges meet at 4 PM					4:00

MDH - Medicine and Health - C

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Hunter Kaitlyn Comparing Manual Therapy and Dry Needling on the Rehabilitation of Sports Related Achilles Injuries	Kaitlyn	Hunter	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health C (MDH-C)	10:00
Iyer Samyukta Assessing Inflammatory Similarities: Mice vs. Human Renal Failure Models	Samyukta	Iyer	Mills E Godwin High School	Round 3 Medicine & Health C (MDH-C)	10:20
Kumar Priya The Effect of different concentrations of liquid ashwagandha (Withania somnifera) on the heart rate of the Daphnia magna	Priya	Kumar	Individual	Round 3 Medicine & Health C (MDH-C)	10:40
Lach-Hab Nadia The Effect of the Concentration of Polyethylene Glycol on the Zone of Inhibition of Lactobacillus acidophilus	Nadia	Lach-Hab	Individual	Round 3 Medicine & Health C (MDH-C)	11:00
Layne Ashley The Effects of a Specific Rest Interval on Different Levels of Physical Exertion, and How the Interval Affects Bat Speed	Ashley	Layne	Southwest Virginia Governor's School	Round 3 Medicine & Health C (MDH-C)	11:20
Lee Minhyung The Causes of Spontaneous Firing of Cardiac Muscle and Effects of Ion Concentration	Minhyung	Lee	Blacksburg High School	Round 3 Medicine & Health C (MDH-C)	11:40
Lunch Break/Zoom Restart					12:00
Li Jerry The Evaluation of Anti-cancer Activity of Over-the-Counter Medication	Jerry	Li	Mills E Godwin High School	Round 3 Medicine & Health C (MDH-C)	12:30
Laneve Jake The Effect of Sports on a Human's Cardiovascular Health	Jake	Laneve	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health C (MDH-C)	12:50
MDH C Judges meet after the last presentation to determine places					1:10

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
MDH Head Judges meet in MDH-A to determine the top MDH paper					2:00
Special Judges meet at 4 PM					4:00

MDH - Medicine and Health - D

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Mishra Aarya ,The Effect of Artificial Sweeteners on Insulin Sensitivity	Aarya	Mishra	Mills E Godwin High School	Round 3 Medicine & Health D (MDH-D)	10:00
Patel Anchal The Effect of Applying Neosporin vs. Turmeric to Bisected Planaria on the Number of Fully Regenerated Planaria, Over Time	Anchal	Patel	Clover Hill High School	Round 3 Medicine & Health D (MDH-D)	10:20
Shah Kaavya-The Prevalence of Thyroid Disease in Ultrasound Screenings Across Various Regions in the United States	Kaavya	Shah	Mills E Godwin High School	Round 3 Medicine & Health D (MDH-D)	10:40
Sureshkumar Ashna The Effect of Bronchial Resistance on the Forced Expiratory Volume (FEV1)	Ashna	Sureshkumar	Mills E Godwin High School	Round 3 Medicine & Health D (MDH-D)	11:00
Szabo Erik The Effect of the Food Coloring Tartrazine (FD&C Yellow #5) Added to a Fruit Fly Media Fed to the Drosophila (Fruit Fly) on Response to Light	Erik	Szabo	Clover Hill High School	Round 3 Medicine & Health D (MDH-D)	11:20
Milam Berkley The Effects of Energy Drink Components on the Heart Rate of Drosophila melanogaster	Berkley	Milam	Central Virginia Governor's School for Science and Technology	Round 3 Medicine & Health D (MDH-D)	11:40
Lunch Break/Zoom Restart					12:00

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Zasler Maytal Figure Skating Training and Balance: A Quantitative and Comparative Analysis	Maytal	Zasler	Collegiate	Round 3 Medicine & Health D (MDH-D)	12:30
MDH D Judges meet after the last presentation to determine places					12:50
MDH Head Judges meet in MDH-A to determine top MDH paper					2:00
Special Judges meet at 4 PM					4:00

MCB - Microbiology and Cell Biology - A

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Hengst Sadie The Effect of Different Natural Antibacterial Agents on Escherichia coli	Sadie	Hengst					Individual	Round 3 Microbiology & Cell Biology A (MCB-A)	10:00
Bell Megan The Effect of Temperature on Dye Dispersion in Agar Platess	Megan	Bell					Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology A (MCB-A)	10:20
Carter Anna Application of CRISPR Gene Editing in a Classroom Setting	Anna	Carter					Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology A (MCB-A)	10:40
Goff Ruby, Cytotoxic Effect of Varying Doses of Allura Red AC, Brilliant Blue FCF, and Sunset Yellow FCF on Allium Cepa L.	Ruby	Goff					Collegiate	Round 3 Microbiology & Cell Biology A (MCB-A)	11:00
Guo Henry The Effect of Divalent Ions on the Viability of E. coli	Henry	Guo					Mills E Godwin High School	Round 3 Microbiology & Cell Biology A (MCB-A)	11:20

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Hanke Helen - The Effect of Different Types of Oral Care Rinses on the Growth of Staphylococcus epidermidis	Helen	Hanke					Individual	Round 3 Microbiology & Cell Biology A (MCB-A)	11:40
Lunch Break/Zoom Restart									12:00
Hassen Nadia, The Effects of Natural Ingredients Found Commonly in Natural Toothpaste on the Growth of Corynebacterium	Nadia	Hassen					Washington Liberty High School	Round 3 Microbiology & Cell Biology A (MCB-A)	12:30
Normington Beckett The Effect of Different Topical Anti-Acne Treatments on the Zones of Inhibition of Staphylococcus epidermidis	Beckett	Normington					Individual	Round 3 Microbiology & Cell Biology A (MCB-A)	12:50
Dylan Borek, Josh Rizer, Izidor Yatsevich, Effects of Ocean Acidification and UV Radiation on Spirulina Major	Josh	Rizer	Dylan	Borek	Izidor	Yatsevich	Governor's School @ Innovation Park	Round 3 Microbiology & Cell Biology A (MCB-A)	1:10
Fontana Ava Gray, The Effects of Different Brands of Sunscreen on Lytechinus variegatus Fertilization	Ava Gray	Fontana					Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology A (MCB-A)	1:30
MCB A Judges meet after the last presentation to determine places									1:50
MCB Head Judges meet in MCB-A to determine top MCB paper									2:45
Special Judges meet at 4 PM									4:00

MCB - Microbiology and Cell Biology - B

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Beaumont Nicola, 'The Use of Chlorella as a Coagulant/Flocculant to Remove Polyethylene Microplastics from Wastewater	Nicola	Beaumont			Individual	Round 3 Microbiology & Cell Biology B (MCB-B)	10:00
Jain Saanvi, The Effect of Antibacterial Properties of Natural Substances on K12 Escherichia coli	Saanvi	Jain			Mills E Godwin High School	Round 3 Microbiology & Cell Biology B (MCB-B)	10:20
Joh Lydia The Effect of Concentration of Sugar in a Sugar-Water Solution in a Liquid Medium on the Resultant Optical Density, After Inoculating the Medium with E. coli	Lydia	Joh			Clover Hill High School	Round 3 Microbiology & Cell Biology B (MCB-B)	10:40
Kaur Bhoomika Investigating the Therapeutic Potential of Natural Products on Advanced Glycation End Product (AGE) Formation and Function in MyC-CaP Prostate Cancer Cells	Bhoomika	Kaur			Mills E Godwin High School	Round 3 Microbiology & Cell Biology B (MCB-B)	11:00
Krzyzanowski Emma Bacteria's Antibiotic Resistance to Tetracycline	Emma	Krzyzanowski			Hampton Roads Academy	Round 3 Microbiology & Cell Biology B (MCB-B)	11:20
Kumar Deepanshi Mitigating the Spread of Cryptococcus Neoformans Infections: The Effect of Green Tea Consumption on Paramecium Aurelia Feeding Rate	Deepanshi	Kumar			Individual	Round 3 Microbiology & Cell Biology B (MCB-B)	11:40
Lunch Break/Zoom Restart							12:00
Labert Reagan, Niknezhad Iana Development of Novel RNA Therapeutics for Female Infertility	Reagan	Labert	Iana	Niknezhad	Mathematics and Science Academy at Ocean Lakes High School	Round 3 Microbiology & Cell Biology B (MCB-B)	12:30
Levorson Madeline Discovery of Medically Important Lytic Bacteriophage in the Environment	Madeline	Levorson			Thomas Jefferson High School for Science and Technology	Round 3 Microbiology & Cell Biology B (MCB-B)	12:50

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Madison Kaitlin The Effect of Conjugation Time on Area of Bacteria Growth	Kaitlin	Madison			Individual	Round 3 Microbiology & Cell Biology B (MCB-B)	1:10
Neidert Julia The Effect of Amount of Time Exposed to Light on the Light Output of Bioluminescent Photosynthetic Dinoflagellates	Julia	Neidert			Clover Hill High School	Round 3 Microbiology & Cell Biology B (MCB-B)	1:30
MCB B Judges meet after the last presentation to determine places							1:50
MCB Head Judges meet in MCB-A to determine the top MCB paper							2:45
Special Judges meet at 4 PM							4:00

MCB - Microbiology and Cell Biology - C

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Zhang Alice-The Deficiency of Acid Ceramidase Promotes Intracellular Nanovesicle Biogenesis Contributing to Aortic Stiffness	Alice	Zhang			Mills E Godwin High School	Round 3 Microbiology & Cell Biology C (MCB-C)	10:00
Team: Iliassov Sofiya, Ferdinando Heaven, The Effects of Sine versus Sawtooth Ultrasonic Sound Waveform Administration on Necrosis in Escherichia coli K-12 and Lactuca sativa var. capitata	Sofiya	Iliassov	Heaven	Ferdinando	Academies of Loudoun	Round 3 Microbiology & Cell Biology C (MCB-C)	10:20
Nguyen Ngo Tan An-The Effect of Obstacles on Slime Mold Navigation Abilities	Ngo Tan An	Nguyen			Mills E Godwin High School	Round 3 Microbiology & Cell Biology C (MCB-C)	10:40
Rao Samvrit In-vitro aided computational approach to identify preclinical drug targets to treat Glioblastoma Multiforme (GBM)	Samvrit	Rao			Individual	Round 3 Microbiology & Cell Biology C (MCB-C)	11:00
Ririe Ethan Investigating the Impact of Parasitic Worm Secretions on Anaphylaxis	Ethan	Ririe			Blacksburg High School	Round 3 Microbiology & Cell Biology C (MCB-C)	11:20

Project Title	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Roark Carsyn The Effect of Water and Temperature on the Growth of Bacteria in Powdered Infant Formula	Carsyn	Roark			Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology C (MCB-C)	11:40
Lunch Break/Zoom Restart							12:00
Rojas-Duran, Kaylee The Effect of the Soaking Solution on the Mass of the Egg	Kaylee	Rojas-Duran			Arlington Career Center	Round 3 Microbiology & Cell Biology C (MCB-C)	12:30
Thomas Ben The Effect on the Growth of Escherichia coli Through the Presence of Streptomyces griseus	Ben	Thomas			Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology C (MCB-C)	12:50
Tivare Kriesh Novel Approach for Modulating the Antibiotic Response and Growth Behaviors of Bacteria Using Oscillating Compound Magnetic Fields	Kriesh	Tivare			Individual	Round 3 Microbiology & Cell Biology C (MCB-C)	1:10
Waterworth Ann Effects of Different Brands of Sunscreen on Escherichia coli	Ann	Waterworth			Central Virginia Governor's School for Science and Technology	Round 3 Microbiology & Cell Biology C (MCB-C)	1:30
Yang Emily Type I γ Phosphatidylinositol Phosphate 5-Kinase Regulates Hippo Signaling Pathway	Emily	Yang			Mills E Godwin High School	Round 3 Microbiology & Cell Biology C (MCB-C)	1:50
MCB C Judges meet after the last presentation to determine places							2:10
MCB Head Judges meet in MCB-A to determine top MCB paper							2:45
Special Judges meet at 4 PM							4:00

PHY - Physics and Astronomy - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Corazzini Kate The Effect of Different Types of Soccer Ball Casings on Force of Impact	Kate	Corazzini	Clover Hill High School	Round 3 Physics & Astronomy A (PHY-A)	10:00
Covington Alexis Effectiveness of the Radial Velocity Method Based on Changing Velocity Utilizing the Doppler Effect	Alexis	Covington	Collegiate	Round 3 Physics & Astronomy A (PHY-A)	10:20
Ekiert Allison The Effect of Various Types of Goggle Straps on the Elasticity of the Straps	Allison	Ekiert	Clover Hill High School	Round 3 Physics & Astronomy A (PHY-A)	10:40
Ellenberger Carson The Effect of Counterweight and Arm Length on the Height and Distance a Trebuchet Projectile Travels	Carson	Ellenberger	Clover Hill High School	Round 3 Physics & Astronomy A (PHY-A)	11:00
Laub, Allyson A Comparison in the Quality of Cane and Synthetic Oboe Reeds	Ally	Laub	Central Virginia Governor's School for Science and Technology	Round 3 Physics & Astronomy A (PHY-A)	11:20
Leighton Declan The Effect of Voltage and Nozzle Size on the Force Generated by Radial Magnetohydrodynamic Drive	Declan	Leighton	Individual	Round 3 Physics & Astronomy A (PHY-A)	11:40
Lunch Break/Zoom Restart					12:00
Blaze Narron The Correlation between Globular Clusters and Millisecond Pulsars	Samuel	Narron	Central Virginia Governor's School for Science and Technology	Round 3 Physics & Astronomy A (PHY-A)	12:30
Jakoubek Sid Investigating the Factors Which Allow for the Stability of Planetary Orbits in Binary Star Systems Using Numerical Simulations Based on Initial Planetary Positions	Sid	Jakoubek	Blacksburg High School	Round 3 Physics & Astronomy A (PHY-A)	12:50
PHY A Judges meet after the last presentation to determine places					1:10
PHY Head Judges meet in PHY-A to determine top PHY paper					1:30

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Special Judges meet at 4 PM					4:00

PHY - Physics and Astronomy - B

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Mukhtar Kareem The Effect Of Different Tennis Balls on Contact	Kareem	Mukhtar					Mills E Godwin High School	Round 3 Physics & Astronomy B (PHY-B)	10:00
Schmutz Ella The Effect of Lead, Polyethylene, and Water on Blocking Cobalt-60 Gamma Radiation	Ella	Schmutz					Central Virginia Governor's School for Science and Technology	Round 3 Physics & Astronomy B (PHY-B)	10:20
Spitzak Kaya The Effect of the Day On the Intensity of Transients	Kaya	Spitzak					Arlington Career Center	Round 3 Physics & Astronomy B (PHY-B)	10:40
Styles Samantha The Effect of Painting Various Types of Surfaces with the Same Acrylic Paint on the Degree of Fading Over Time, Measured by RGB Difference Over Time	Samantha	Styles					Clover Hill High School	Round 3 Physics & Astronomy B (PHY-B)	11:00
Winters Lauren The Effect of Using a Colored Pencil on Various Types of Art Media on the Brightness or Dullness of Color Exhibited	Lauren	Winters					Clover Hill High School	Round 3 Physics & Astronomy B (PHY-B)	11:20
Zakriya Amna The Effect of Solar Energetic Particle Events on the Earth's Geomagnetic Field	Amna	Zakriya					Mountain View High School	Round 3 Physics & Astronomy B (PHY-B)	11:40
Lunch Break/Zoom Restart									12:00

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Zhang Minghui, Lupariello Maxim, To Louis Electro-Stopping Power	Minghui	Zhang	Louis	To	Maxim	Lupariello	Governor's School @ Innovation Park	Round 3 Physics & Astronomy B (PHY-B)	12:30
PHY B Judges meet after last presentation to determine places									12:50
PHY Head Judges meet in PHY-A to determine top PHY paper									1:30
Special Judges meet at 4 PM									4:00

PSY - Psychology - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Aboagye Nyomi The Effect of Fear on Heart Rate	Nyomi	Aboagye	Mills E Godwin High School	Round 3 Psychology A (PSY-A)	10:00
Burgess Lizzy The Correlation Between Anxiety and Friendship Quality	Lizzy	Burgess	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	10:20
Cantrell Josiah, The Effect of Academic Performance on Symptoms of Generalized Anxiety Disorder	Josiah	Cantrell	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	10:40
Debnath Tanusiya The Effect of Psychotherapy on Opioid Addiction	Tanusiya	Debnath	Mills E Godwin High School	Round 3 Psychology A (PSY-A)	11:00
Glover Sydney The Relationship Between Biological Sex and Short-term memory	Sydney	Glover	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	11:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Hines Emily The Effect of Hair Color on Human Perception	Emily	Hines	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	11:40
Lunch Break/Zoom Restart					12:00
Adamczyk Katie The Correlation Between Houseplants and Motivation	Katie	Adamczyk	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	12:30
Emanuel Emily The Relationship Between Musical Theatre Involvement and Self-esteem in Highschoolers	Emily	Emanuel	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	12:50
Heideman Annalyse The Effect of Social and Extracurricular Activities on Students need for Academic Dishonesty	Annalyse	Heideman	Central Virginia Governor's School for Science and Technology	Round 3 Psychology A (PSY-A)	1:10
PSY A Judges meet after the last presentation to determine places					1:30
PSY Head Judges meet in PSY-A to determine top PSY paper					2:30
Special Judges meet at 4 PM					4:00

PSY - Psychology - B

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Kintz, Arwen The Effect of Positive Versus Negative Portrayals of Sharks on People's Dispositions Towards Them.	Arwen	Kintz	Chesapeake Bay Governor's School	Round 3 Psychology B (PSY-B)	10:00
Lloyd Evangeline The Relationships Between Religious Affiliations and Perceptions of Multiple Forms of Intelligence	Evangeline	Lloyd	Central Virginia Governor's School for Science and Technology	Round 3 Psychology B (PSY-B)	10:20

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Long Isabella The Effect of Studying and Working in the Legal Field on Emotional Well-Being	Isabella	Long	Central Virginia Governor's School for Science and Technology	Round 3 Psychology B (PSY-B)	10:40
Lucas Addison The Impact of an Athlete's Performance in Competition On Their Perception of How They Will Perform in Future Competition	Addison	Lucas	Collegiate	Round 3 Psychology B (PSY-B)	11:00
Mattox Conner The effects of the COVID-19 pandemic on early childhood social development	Conner	Mattox	Central Virginia Governor's School for Science and Technology	Round 3 Psychology B (PSY-B)	11:20
May Charles Relationship Between Participation in Extracurricular Activities and Stress Levels	Charles	May	Central Virginia Governor's School for Science and Technology	Round 3 Psychology B (PSY-B)	11:40
Lunch Break/Zoom Restart					12:00
Morris Molly The Correlation Between Color Cues and Human Perception of Flavor	Molly	Morris	Southwest Virginia Governor's School	Round 3 Psychology B (PSY-B)	12:30
Jones Taylor The Effect of Social Influence on Adolescent Decision Making	Taylor	Jones	Central Virginia Governor's School for Science and Technology	Round 3 Psychology B (PSY-B)	12:50
PSY B Judges meet after the last presentation to determine places					1:10
PSY Head Judges meet in PSY-A to determine top PSY paper					2:30
Special Judges meet at 4 PM					4:00

PSY - Psychology - C

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Prasanna Kabilan, MasterMind: A Novel Multi-Output Model Approach for Detecting Mental Illnesses through Natural Language Processing	Kabilan	Prasanna	Lightridge High School	Round 3 Psychology C (PSY-C)	10:00
Rai Bisan, Online "Group" Effect on Addiction Recovery	Bisan	Rai	Southwest Virginia Governor's School	Round 3 Psychology C (PSY-C)	10:20
Stone Emma The Correlation Between Personality Type and Academic Achievement	Emma	Stone	Central Virginia Governor's School for Science and Technology	Round 3 Psychology C (PSY-C)	10:40
Warner Riley The Effect of Social Media on Eating Disorder Prevalence in College Students	Riley	Warner	Central Virginia Governor's School for Science and Technology	Round 3 Psychology C (PSY-C)	11:00
Woody Lainey The Effect of Music on Testing Anxiety	Lainey	Woody	Central Virginia Governor's School for Science and Technology	Round 3 Psychology C (PSY-C)	11:20
Yuan Annie Emotional Perception of Vaping Affects Vascular Health of Electronic Cigarette Users	Annie	Yuan	Mills E Godwin High School	Round 3 Psychology C (PSY-C)	11:40
Lunch Break/Zoom Restart					12:00
Smith Scarlett, The correlation between maternal cosmetic use and their teenage child's confidence.	Scarlett	Smith	Central Virginia Governor's School for Science and Technology	Round 3 Psychology C (PSY-C)	12:30
PSY C Judges meet after last presentation to determine places					12:50
PSY Head Judges meet in PSY-A to determine top paper					2:30
Special Judges meet at 4PM					4:00

SAI - Statistical Analysis and Inferences

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Quinones-Partain Griffin Correlation Between a Country's GDP and Secondary Aluminum Production	Griffin	Quinones-Partain	Central Virginia Governor's School for Science and Technology	Round 3 Statistical Analysis & Inferences (SAI)	10:00
Sittason Parker Comparing the Frequency of Knee Injuries in American Football on Artificial Turf Vs Natural Grass	Parker	Sittason	Central Virginia Governor's School for Science and Technology	Round 3 Statistical Analysis & Inferences (SAI)	10:20
Brame Lily An Analysis of Gender Equality and National Success: Are You Happy, Healthy, and Wealthy?	Lily	Brame	Chesapeake Bay Governor's School	Round 3 Statistical Analysis & Inferences (SAI)	10:40
Burks Jenna Predicting Familial Relationships Using Fingerprints	Jenna	Burks	Central Virginia Governor's School for Science and Technology	Round 3 Statistical Analysis & Inferences (SAI)	11:00
Chen Ryan The Effect of Different Brands of Competitive Swimwear on the Amount of Water Absorbed	Ryan	Chen	Clover Hill High School	Round 3 Statistical Analysis & Inferences (SAI)	11:20
Hardin Isaac The Effect of Fine Arts Involvement on Academic Performance	Isaac	Hardin	Central Virginia Governor's School for Science and Technology	Round 3 Statistical Analysis & Inferences (SAI)	11:40
Lunch Break/Zoom Restart					12:00
Herrick Jonathan Relationship Between Economic Inflation and Stock Performance	Jonathan	Herrick	Central Virginia Governor's School for Science and Technology	Round 3 Statistical Analysis & Inferences (SAI)	12:30
The Impact Comparison of Artificial Intelligence on Different Occupations in the Labor Market	Isabella	Liu	Blacksburg High School	Round 3 Statistical Analysis & Inferences (SAI)	12:50

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Morishetty Sriyutha, An Empirical Analysis of the Existence of Greenwashing in the Wider US Market: A Test on the Efficacy of ESG Scores	Sriyutha	Morishetty	Individual	Round 3 Statistical Analysis & Inferences (SAI)	1:10
Somala Abhijit, Predictive Wildfire Modeling in California: Leveraging Machine Learning for Effective Resource Allocation and Prevention Strategies	Abhijit	Somala	Individual	Round 3 Statistical Analysis & Inferences (SAI)	1:30
Walker Tripp How Has 1930's Redlining Affected the Current Equity of Walkability in American Cities?	Tripp	Walker	Chesapeake Bay Governor's School	Round 3 Statistical Analysis & Inferences (SAI)	1:50
Wang Lishu The Economic Impact of California's Recent Out-Migration on its Neighboring States	Lishu	Wang	Blacksburg High School	Round 3 Statistical Analysis & Inferences (SAI)	2:10
SAI Judges meet after the last presentation to determine places					2:30
Special Judges meet at 4 PM					4:00

ZOO - Zoology - A

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Beeravalli Neha The Effect of Tempo Speed Vibrations on Daphnia Magna Heart Rate	Neha	Beeravalli	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	10:00
Branch Lily The Effect of Melatonin on Regeneration of Dugesia dorotocephala	Lily	Branch	Central Virginia Governor's School for Science and Technology	Round 3 Zoology A (ZOO-A)	10:20
Appleton Peter The Effect of Various Household Chemicals, When Used as a Deterrent, on Food-Gathering Speed in Pogonomyrmex occidentalis	Peter	Appleton	Clover Hill High School	Round 3 Zoology A (ZOO-A)	10:40

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
Atturu Ishaan - The Effect of Solvents on Oil Removal from a Feather	Ishaan	Atturu	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	11:00
Badhrayan Aditya The Effect of Intermittent Metabolic Switching on a-synuclei aggregation in Parkinson's Disease via Drosophila Melanogaster.	Aditya	Badhrayan	Individual	Round 3 Zoology A (ZOO-A)	11:20
Chatterjee Rimil The Effect of Various Amounts of an Ascorbic Acid Solution on the Difference in Length of Dugesia dorotocephala	Rimil	Chatterjee	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	11:40
Lunch Break/Zoom Restart					12:00
Croxford Bryce The Effect of Food Dyes on Planarian Growth	Bryce	Croxford	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	12:30
Edassery Kristine The Effect of Household Beauty Products on Daphnia magna	Kristine	Edassery	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	12:50
Harpole Ailin, Assessing Reproductive Substrate Availability and Timing for Chrysaora chesapeakei	Ailin	Harpole	Chesapeake Bay Governor's School	Round 3 Zoology A (ZOO-A)	1:10
Ayan Jethava The Effect of Indian Medicinal Spices on Planarian Regeneration	Ayan	Jethava	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	1:30
Kamujula Anika The Effect of Phenolic Acids on the Regeneration of Dugesia dorotocephala Cells	Anika	Kamujula	Mills E Godwin High School	Round 3 Zoology A (ZOO-A)	1:50
Easter Ethan Determining the Effects of Four Natural Items on Oranges to Repel Drosophila melanogaster	Ethan	Easter	Southwest Virginia Governor's School	Round 3 Zoology A (ZOO-A)	2:10

Project Title	First Name	Last Name	School	Category and Section	Presentation Time
ZOO A Judges meet after last presentation to determine places					2:30
ZOO Head Judges meet in ZOO-A to determine top ZOO Paper					3:00
Special Judges meet					4:00

ZOO - Zoology - B

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Lateef Rania, Rhythms and Blues: Examining Potential Health Hazards of Blue Light-induced Circadian Disruption in <i>Drosophila melanogaster</i>	Rania	Lateef					Governor's School @ Innovation Park	Round 3 Zoology B (ZOO-B)	10
Lee James The Effect of Over-the-counter Drugs on Earthworm Locomotion	James	Lee					Mills E Godwin High School	Round 3 Zoology B (ZOO-B)	10:20
Mohammed Ayaan The Effect of Electricity on the Regeneration of Planaria	Ayaan	Mohammed					Mills E Godwin High School	Round 3 Zoology B (ZOO-B)	10:40
Molligoda Heshan, The Effect of Antibacterial Ointments on Planarian Regeneration	Heshan	Molligoda					Mills E Godwin High School	Round 3 Zoology B (ZOO-B)	11
Morton Grace The Effect of Feeding Plastic Polystyrene to Mealworms Compared to Baby Carrots on Survival Rate Over Time	Grace	Morton					Clover Hill High School	Round 3 Zoology B (ZOO-B)	11:20
Phillips Kailin The Effects of Age on Milk Fat Percentage in Holstein Cows	Kailin	Phillips					Southwest Virginia Governor's School	Round 3 Zoology B (ZOO-B)	11:40

Project Title	First Name	Last Name	First Name	Last Name	First Name	Last Name	School	Category and Section	Presentation Time
Lunch Break/Zoom Restart									12:00
Poovathukaran Noah The Effect of Adaptogenic Herbs on Planaria Regeneration	Noah	Poovathukaran					Mills E Godwin High School	Round 3 Zoology B (ZOO-B)	12:30
Smith Brett A Phylogenetic Analysis of the Origin of Neuronal Structures in Basal Holozoa	Brett	Smith					Roanoke Valley Governor's School	Round 3 Zoology B (ZOO-B)	12:50
Thompson Nicholas Rationality of Ants	Nicholas	Thompson					Southwest Virginia Governor's School	Round 3 Zoology B (ZOO-B)	1:10
Vijay Dhruv The Effect of Different Temperatures with Vitamin A on Planaria Regeneration	Dhruv	Vijay					Mills E Godwin High School	Round 3 Zoology B (ZOO-B)	1:30
Saleha Manha, Kim Aerin, Johnson Alyssa The Physiological Effects of Cumin as a Homeopathic Remedy for Drosophila Melanogaster	Manha	Saleha	Aerin	Kim	Alyssa	Johnson	Governor's School @ Innovation Park	Round 3 Zoology B (ZOO-B)	1:50
ZOO B judges Meet After Last Presentation to determine places									2:10
ZOO Head Judges meet in ZOO-A to determine top ZOO paper									2:30
Special Judges meet at 4 PM									4:00

Selected Programs of the Virginia Academy of Science

The Virginia Journal of Science is America's fourth largest state academy journal in circulation (after New York, Chicago, and Ohio) and goes to 47 states and 12 countries overseas. A professionally refereed quarterly, The Journal publishes original research articles and research notes in the various disciplines of science, mathematics, and engineering: cross-disciplinary papers on advances in science and technology and their impact on society are invited. Minutes of The Academy and notices are also published. Many significant contributions were first published in The Journal and its articles have a high rate of citation. Authors are allowed the first 15 pages, including figures, without charge (\$50 per page for the 16th subsequent pages). Subscription rates are \$40.00 per year. Selected back issues available.

For additional information, contact Christopher Osgood at cosgood@odu.edu or 757-683-6778.

Virginia Scientists, the Academy's newsletter is published three times yearly and serves to communicate information about the Academy; regional conferences; various state science institutions; organizations, agencies, and corporations; and Virginia's researchers, science educators, and their students. Articles and notices are cordially invited. In addition to members, it is sent to Virginia legislators, selected agencies, and college and university presidents.

For information, contact Sujan Henkanaththegedara at henkanaththegedarasm@longwood.edu or 434-395-2731.

The Virginia Junior Academy of Science is one of the Nation's foremost junior academies. In addition to the nationally recognized annual refereed paper competition involving hundreds of volunteers, VJAS and VAS programs reach about 40,000 Virginia secondary students each year. Over \$80,000 in scholarships, prizes, research support grants, and trips to national meetings and events are awarded annually. Scientists and science educators are encouraged to adopt school science programs, classes, and clubs, to provide information on Academy programs and foster new clubs and opportunities for Virginia's youth.

For additional information, contact Susan P. Booth at director@vjas.org.

Fall Undergraduate Research Meeting: In Fall 2001, VAS held the first Fall Undergraduate Research Meeting, which focused on support of undergraduate student research. Subsequently, this meeting has been held on an annual basis. Awards of \$500 are given to each of the five top student proposals chosen by judges. The awardees selected at the Fall Undergraduate Research Meeting will present the results of their research projects at the following year's VAS Annual Meeting. Guidelines for the Fall Meeting will be announced on the Academy website www.vacadsci.org.

To obtain additional information about the Fall Undergraduate Research Meeting, contact Carolyn M. Conway, Associate Executive Officer, Virginia Academy of Science at vasoffice@vacadsci.org or 804-864- 1450.

VAS and VJAS Scientific Research Grants, Awards, Scholarships, Assistantships, etc. are made possible by hundreds of corporate and individual donors who believe in our work to benefit the People of Virginia. Many have found this a meaningful way to memorialize a loved one, support a student's education, or recognize a colleague's work.

To Create an Endowment or Make a Donation, please contact Philip M. Sheridan, Executive Officer, Virginia Academy of Science, at psheridan@vacadsci.org or 804-864-1451.

