



2023 Prince William-Manassas Regional Science and Engineering Fair Middle Division Participants

Animal Sciences

School	Students	Project Title
All Saints Catholic School	Alessandra Rodriguez	The Effect of Classical Music on a Dog's Behavior at Night
All Saints Catholic School	Aurelia Martinez	The Effect of Location on the Number of Fireflies Found During the Day
Benton Middle School	Deen Lateef	The Perils of Plastic
Gainesville Middle School	Katherine Heenan	The Effect of Laser Colors on Cat Interest
Graham Park Middle School	Eleanor Bowling	Build a Better Moth Trap: The Effect of Color on Moth Attraction
Graham Park Middle School	Kaitlyn Whitney	Color Stimulation in Cats

Behavioral and Social Sciences

School	Students	Project Title
All Saints Catholic School	Isabella Jolly	The Effect of Chewing Gum on Test Performance
All Saints Catholic School	Mia Reyes	The Effect of the Amount of Sleep on Test Outcomes
Benton Middle School	Opshora Hannan	The Effect of Subliminal Messaging on Decision-Making
Benton Middle School	Sajeela Ahmad	The Effect of Suggestion on Visual Memory in Youth and Adults
Bull Run Middle School	Nicholas Walter	The Effect of Video Games vs. Reading on Memory Accuracy
Bull Run Middle School	Allison Davenport	The Effects of Caffeine on Short-Term Memory
Gainesville Middle School	Elizabeth Houchens	Is There a Preconceived Flavor Associated with Color as it Applies to Food?

Gainesville Middle School	Lynnette McCullough	Star Personality
Graham Park Middle School	Erin Heim	The Effect of Organization on Memory
Graham Park Middle School	Sophia McKeogh	The Effect of a Person's Age on Their Fears
Marsteller Middle School	Violet Masiello Emma Ashley	The Effect of Chewing Gum on a Growing Mind
Potomac Shores Middle School	Riley Snyder	How Do Different Coaching Styles Impact a Youth Athlete's Stress Level and Performance?
Reagan Middle School	Gwendolyn Britcher	The Effect of Time on Memory
St. Francis of Assisi School	Olivia Morgan	Does Your Brain Know Best? The Effect of Preconceived Notion on Preference
St. Francis of Assisi School	Khae'el Williams	The Effect of Artificial and Real Scents on the Human Olfactory System
Woodbridge Middle School	Abigail Greaux	Detecting a Lie
Woodbridge Middle School	Manahil Chaudhry	How Many Numbers Can a Human Remember Based on Age?

Biochemistry

School	Students	Project Title
All Saints Catholic School	Emilia Doyle	The Effect of Red Substances on the Kastle-Meyer Blood Test
Gainesville Middle School	Niveditha Arunkumar	The Effect of Temperature on Enzyme Activity Time
Gainesville Middle School	Nhi To	The Effect of Yeast on Bread Height
St. Francis of Assisi School	Ria Rawoor	The Effect of Different Mixtures on Apple Browning
Woodbridge Middle School	Miranda Hickling	Total DNA Mass Extracted from Fruit Using an Alcohol Extraction Method

Chemistry

School	Students	Project Title
Benton Middle School	Ahna Boyce	The Effect of Different Levels of Salinity on Water's Boiling Rate
Bull Run Middle School	Anum Mahmood Jasmine McConico Sienna Motley	The Effect of Different Substances on Dry Ice Sublimation

Gainesville Middle School	Adara Kryway	The Effect of pH on Antacid Dissolving Time
Gainesville Middle School	Ella Soudachanh	The Electric Drink
Graham Park Middle School	Elaina Crossin	pH Levels in Coffee
Graham Park Middle School	Gabriella Love	Testing the pH of Household Items and Foods
Reagan Middle School	Jonathan Yang	A Potential Anti-Food Waster? The Effect of pH on Resistance to Enzymic Browning
Reagan Middle School	Lily Lu	The Effect of Different Percentages of Petrolatum in Baby Moisturizers on Keeping Skin Moist
Rippon Middle School	Rosaphi Le Kassie Magnaye Zara Aslam	The Effect of Different Types of Soil on the Decomposition of Compostable Bags
St. Francis of Assisi School	Andrew Gable	Mentos Fountains: The Effect of Soda Type on Eruption Height
St. Francis of Assisi School	Isabelle Gerona	The Effect of Vinegar on the Release of Calcium from Eggshells
Woodbridge Middle School	Furqan Mughal	The Effect of Soda Type on CO ₂
Woodbridge Middle School	MacKenzie Krisak	What Drink Melts Ice the Best?: The Effect of Various Drinks on the Melting Rate of Ice

Computer Science

School	Students	Project Title
Gainesville Middle School	Vanessa Ortiz	Fastest Mobile Wireless Provider in the Greater Manassas Area

Earth and Planetary Sciences

School	Students	Project Title
Gainesville Middle School	De'Jon Johnson	The Effect of the Mohs Test on Unknown Minerals
Gainesville Middle School	Samantha Kerner	The Satellite Expedite!
St. Francis of Assisi School	Nathaniel Salley	Gravity's Effect on Plants

Engineering

School	Students	Project Title
Gainesville Middle School	Muhammad Ibrahim Joel Ha	The Effect of Bridge Design on Efficiency
Gainesville Middle School	Zachary Miller Clay Rasmussen	Rocket Science: How Hard Could it be?
Pennington Traditional School	Aanya Shah Noor Shaikh	See the Light from Different Angles
Porter Traditional School	Liya Tilahun	Flying High: An Analysis of Which of the Four Airplanes (F-15, Arrowhead, Basic Airplane, and Stable) can Fly the Farthest
Reagan Middle School	Layth Elmisorati	Solar R.C. Car
Reagan Middle School	Arshwin Ramesh	The Effect of Dome Design on its Load Bearing Capacity
Rippon Middle School	Emily Le	The Effect of Roof Shapes on Safety During Hurricanes
Rippon Middle School	Anthony Morris	The Effect of the Model of Bridge on the Amount of Weight it can Hold
St. Francis of Assisi School	Asher Pratt	Building for Seismic Safety: The Effect of Different Shapes on Structural Damage

Environmental Sciences

School	Students	Project Title
Bull Run Middle School	Nolan Campbell	What is the Effect of Filtration Material on Pond Water?
Gainesville Middle School	Joel Daughtry	Soil Erosion
Gainesville Middle School	Olivia Wingo	The Effect of Laundry Detergent Solutions on Plant Height
Graham Park Middle School	Vedkris Burra	The Effect of Environmental Pollutants on <i>Artemia salina</i>
Pennington Traditional School	Seth Grohs Rishabh Patel	Is There a Difference in Water Quality Within the PWCSA West System?
Pennington Traditional School	Adaeze Acholonu	Water Filtration Mechanisms
Reagan Middle School	Anaum Moniruzzoha Isabel Amante	Powdered or Charcoal? The Filtration Efficiency of Several Charcoal Types

St. Francis of Assisi School	John Mahoney	How Weight Affects the Speed of Solar and Battery Powered Cars
St. Francis of Assisi School	Ryan Kern	The Effect of Angle on Windmill Energy Production
Woodbridge Middle School	Sydney Johnson	The Effect of Gravity Filtration on Water Quality

Materials Sciences

School	Students	Project Title
All Saints Catholic School	Isabella Summers	The Effect of Different Types of Packaging on Cherry Tomato Freshness
All Saints Catholic School	Addison Trunzo	The Effect of Temperature on Magnetism
Benton Middle School	Eli Oldenburg	The Effect of Filament Thickness on Lightbulb Burning Duration
Benton Middle School	Harper Singer	The Effect of Flood Barriers on how Long it Takes for Water to get Through
Bull Run Middle School	Eleanor Sirocky	The Effect of Different Materials on Cell Phone Signal
Gainesville Middle School	Annalise Blankenship	Saltwater vs. Straws
Reagan Middle School	Aysha Jafar	The Effect of Different Brands of Paper on Marker Bleeding
Rippon Middle School	Noah Reitman	The Effect of Temperature on a Magnet
St. Francis of Assisi School	Kingsley Opare- Abetia	Battle of the Batteries
St. Francis of Assisi School	Logan Dennison	The Effect of a Magnet Temperature on the Magnet's Magnetic Field
Woodbridge Middle School	Zi'Lynn Spann	Gum Removal
Woodbridge Middle School	Claire Smith	The Effect of Water Amounts on a Cardboard House

Mathematics

School	Students	Project Title
Gainesville Middle School	Eshan Gupta	The Effect of Trial Size on Experimental Probability Reaching Theoretical Probability
Porter Traditional School	Saifullah Baig	Applied Mathematics to Make Money

Medicine & Health Sciences

School	Students	Project Title
All Saints Catholic School	Ashley Yonika	The Effect of Genetics on Fingerprint Similarity
All Saints Catholic School	Emily Mills	The Effect of SPF Level on UV Ray Exposure
Graham Park Middle School	Jayden Lamptey	The Effect of Playing Different Genres of Video Games on Heart Rate
Graham Park Middle School	Natalie Vanslette	The Effect of Soda on Teeth Enamel
Marsteller Middle School	Lana Wahdan	Puzzling Pulses: The Effect of Cognitive Stimulation on Heart Rate
Parkside Middle School	Jingyi Mao Aditi Puri Amira Sadieva	The Effect of Hand Washing Technique on Bacterial Growth
Pennington Traditional School	Maren Hudson Arsema Hailu Isabela Cannon	The Study of Dog and Human Mouths
Porter Traditional School	Rigved Rajbhandari Kayam Dhungana	The Impact of Various Sodas and Juices on Dental Health
Reagan Middle School	Christine Park	The Effect of Nutrition on Athletic Performance for Teenagers

Microbiology

School	Students	Project Title
All Saints Catholic School	Cameron Steketee	The Effect of the Price of Mouthwash on the Growth of Bacteria
Benton Middle School	Olivia Martin	The Effect of Mouthwash on Bacteria on the Teeth
Benton Middle School	Sara Moussavi	The Effect of Different Types of Benzoyl Peroxide on Bacterial Growth
Bull Run Middle School	Aidan Emmett	The Effect of the Type of Cleaner on the Growth of Mold on Bread
Bull Run Middle School	Maya Jaff	The Effect of Time on Bacteria Growth
Marsteller Middle School	Varun Manni	The Effectiveness of Household Cleaning Solutions on Bacteria from Environmental Swabbing

Pennington Traditional School	London Rainey-Stokes	The Effect of Common Household Cleaners on Raw Turkey Meat
Reagan Middle School	Erika Kim Ayana Moniruzzoha	The Effect of Different Types of Radiation on Bacteria in Agar Dishes
Rippon Middle School	Katja Loveall	The Effect of Temperature on the Carbon Dioxide Output of Baker's Yeast
St. Francis of Assisi School	Stephen Kretz	The Effect of Bread Type on Mold Growth
St. Francis of Assisi School	Hila Kantz	The Effect of Temperature on Mold Growth

Physics

School	Students	Project Title
Gainesville Middle School	Dylan Keeling	The Effect of Launch Angle on Launch Distance
Gainesville Middle School	Ella Repoli	Stretchy Science: The Effect of Temperature on the Elasticity of Rubber
Graham Park Middle School	Ambrose Rolfes	Measuring Background Radiation
Graham Park Middle School	Nathan Truong	The Effect of Light Color on Heat
Reagan Middle School	Levi Kouts	The Effect of Different Parachute Materials on the Speed of a Paperclip's Drop
Reagan Middle School	Mazen Ben Chouikha	The Effect of the Amount of Water in a Water Bottle on the Amount of Space it Needs to Land Upright
Rippon Middle School	Frances Yeboah	The Effect of Mass on the Diameter of Craters
Seton School	Clare Heiny	Let it Flow: An Analysis of the Effect of Different Materials on the Speed of the Water Flow
Seton School	Rafael De Micoli	The Ball Dive
St. Francis of Assisi School	Isabella Feagin	Just Some Salty Water: The Effect of Salt on Water
St. Francis of Assisi School	Dylan Sagudan	The Effect of Temperature on the Speed and Volume of Sound
Woodbridge Middle School	Amelia LaPlant	Light Art and how Shutter Speed Affects it

Plant Sciences

School	Students	Project Title
Benton Middle School	Mason Mahabir	The Effect of Fertilizers on Seedling Growth
Benton Middle School	Ava Mallaney	The Effect of Water Source on Lentil Growth
Gainesville Middle School	Linda Pistun	Sprouting Hope: The Effects of Fertilizers with Different Nitrogen-Release Speeds on the Growth and Development of <i>Solanum lycopersicum</i>
Graham Park Middle School	Annabella Loke	Does Magnetism Help Plants Grow?
Reagan Middle School	Muhammad Usufzai	The Effect of Lighting Sources on Plant Growth
Rippon Middle School	Angelina Loke	The Effect of Different Colored Lights on Plants
Rippon Middle School	Jurnee Flowers	The Effect of Soil Additives on Plant Growth
St. Francis of Assisi School	Lillian Krumnow	Hydroponics, Food and Farming Effect of Vertical Hydroponics on Crops
The Nokesville School	Aly Estenor	How Water Additives Impact Plant Growth
The Nokesville School	Sarah Chiramel Audrey Organ	Phototropism and its Effects on Plant Growth
Woodbridge Middle School	Tracy Arias Zuniga	Finding the Best Growth Medium: The Effect of Growth Medium on Root Growth of Spider Plants
Woodbridge Middle School	Caelyn Jimenez	The Effect of Lighting on Pinto Beans

Robotics and Intelligent Machines

School	Students	Project Title
Bull Run Middle School	Mlinda Nkhoma	The Effect of Different Temperatures on Robot's Performance
Gainesville Middle School	Max Mohr	How Much Weight can a 3D Print Hold? Determining Print Strength Based on Nozzle Temperature
Pennington Traditional School	Imani Cobbs Isabella Cortes Andrade	Goggles of Invisible Light