

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**Middle School Winners**

**Physical Science**

**Honorable Mention**

Name: Joseph Manalad  
Project Title: How Does Aircraft Design Affect Flight Speed?  
School: Hamilton Elementary / Middle School  
Grade: 6

**Honorable Mention**

Name: Desiree Foster  
School: James McHenry Elementary/Middle School  
Grade: 6

**4<sup>th</sup> Place**

Name: Marcus Johnson  
Project Title: Hearing Sounds in Space  
School: James McHenry Elementary/Middle School  
Grade: 8

**3<sup>rd</sup> Place**

Name: Kieran Coughlin  
Project Title: Deflate Gate Testing  
School: Hamilton Elementary / Middle School  
Grade: 6

**2<sup>nd</sup> Place**

Name: Logan Fulbright  
Project Title: Carbon Cleanse  
School: Homeschool-Classical Conversations  
Grade: 7

**1<sup>st</sup> Place**

Name: Khalila Richards  
Project Title: Chemical vs Electrical Reactions  
School: James McHenry Elementary/Middle School  
Grade: 6

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**Middle School Winners**

**Biological Science**

**Honorable Mention**

Name: Asjia Gardner

Project Title: What type of powder picks up the fingerprint the best?

School: Dickey Hill Elementary Middle School

Grade: 8

**4<sup>th</sup> Place**

Name: Kacynthia Harison

Project Title: How Do You Make the Best Cookies

School: Thomas Jefferson Elementary/Middle School

Grade: 8

**3<sup>rd</sup> Place**

Name: Skye O'Brien

Project Title: CALORIMETER

School: Dickey Hill Elementary Middle School

Grade: 8

**2<sup>nd</sup> Place**

Name: Mekayla Jackson

Project Title: What Bacteria Causes Acne on the Face

School: Thomas Jefferson Elementary/Middle School

Grade: 8

**1<sup>st</sup> Place**

Name: Aliona Penniston

Project Title: All Alone in The Moonlight: Music & Memory

School: Mount Royal Elementary Middle School

Grade: 7

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**Middle School Winners**

**Earth and Environmental Science**

**Honorable Mention**

Name: Fiona Sheehan

Project Title: Floods

School: James McHenry Elementary/Middle School

Grade: 6

**Honorable Mention**

Name: Cecilia Soko

Project Title: Which will grow?

School: James McHenry Elementary/Middle School

Grade: 8

**4<sup>th</sup> Place**

Name: Naimen Evans

Project Title: Tornado in a Box

School: Thomas Jefferson Elementary/Middle School

Grade: 7

**3<sup>rd</sup> Place**

Name: Keith James

Project Title: Purify Water with Charcoal

School: Thomas Jefferson Elementary/Middle School

Grade: 7

**2<sup>nd</sup> Place**

Name: Nico Singh

Project Title: An ex-stream-ly interesting phenomenon

School: Mount Royal Elementary Middle School

Grade: 7

**1<sup>st</sup> Place**

Name: Joshua Adler

Project Title: The Dead Sea 2.0

School: Francis Scott Key Elementary/Middle School

Grade: 6

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**Middle School Winner**

**Mathematics and Computer Science**

**1<sup>st</sup> Place**

Name: Zephaniah Noor  
School: Roland Park Elementary/Middle School  
Grade: 7

**Middle School Winners**

**Engineering**

**4<sup>th</sup> Place**

Name: Marwan El-Kamary  
Project Title: Which Lego Gun Mechanism Shoots the Farthest and is Most Durable?  
School: Roland Park Elementary/Middle School  
Grade: 6

**3<sup>rd</sup> Place**

Name: Jordan Harris  
Project Title: Design a Helping Hand  
School: Thomas Jefferson Elementary/Middle School  
Grade: 7

**2<sup>nd</sup> Place**

Name: James Korn  
Project Title: Magnet Dice for Inexperienced Rollers  
School: Mount Airy Christian Academy  
Grade: 8

**1<sup>st</sup> Place**

Name: Evan Mosier  
Project Title: Bridge competition  
School: Roland Park Elementary/Middle School  
Grade: 7

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**Middle School Winners**

**Team Project**

**3<sup>rd</sup> Place**

Name: Ashton Melo-Artega and John Williams  
Project Title: Hide-N-Sniff  
School: Francis Scott Key Elementary/Middle School  
Grade: 6

**2<sup>nd</sup> Place**

Name: Colin Durbin and Ryan Kashnow  
Project Title: Crystal Growth  
School: Francis Scott Key Elementary/Middle School  
Grade: 6

**1<sup>st</sup> Place**

Name: Ayan Kabaria, Ananya Kumbhare and Nikhil Sreekanth  
Project Title: Farming Technology to Increase Solar Efficiency  
School: Clarksville Elementary/Middle School  
Grade: 6

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**High School Winners**

**Biological Science**

**Honorable Mention**

Name: Benjamin Kilma

Project Title: Investigating the factors affecting the movement of turtles

School: Mergenthaler Vocational Technical High School

Grade: 9

Name: Ishani Ghosh

Project Title: Saturated lipid mediated abrogation of neurogenesis: a new paradigm for therapeutic implication in traumatic brain injury among obese and high lipid index individuals

School: Centennial High School

Grade: 11

Name: Dhruv Veda

Project Title: Altering the Landscape of Migraine Treatment: An Inquiry into the Use of Vagal Nerve Stimulation as an Alternative to Commonly Prescribed Triptans and Ergotamines

School: Centennial High School

Grade: 9

**4<sup>th</sup> Place**

Name: Yuki Lin

Project Title: Understanding how enoxolone inhibits HNF4a and reduces lipoproteins

School: Baltimore Polytechnic Institute

Grade: 12

**3<sup>rd</sup> Place**

Name: Iris Zheng

Project Title: Activity of E. coli CRISPR-Cas System on Insertion and Deletion Off-Target Sites

School: Baltimore Polytechnic Institute

Grade: 12



**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**High School Winners**

**Biological Science**

**2<sup>nd</sup> Place**

Name: Nicholas Santiago

Project Title: Expression of Gal3 within Mouse and Human Models of  
Alzheimer's Disease

School: Baltimore Polytechnic Institute

Grade: 12

**1<sup>st</sup> Place**

Name: Jason Wang

Project Title: Higher serum testosterone level was associated with a  
lower risk of prediabetes in US adults: findings from  
nationally representative data

School: Marriotts Ridge High School

Grade: 11

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**High School Winners**

**Earth and Environmental Science**

**Honorable Mention**

Name: Martin Meister

Project Title: Mapping Seagrass Density in the Chesapeake Bay using Sentinel-2 Remote Sensing Data on Google Earth Engine

School: Centennial High School

Grade:10

Name: Kaif Rehman

Project Title: Analysis of Small Shelly Fossils and Ocean Chemistry of the Early Cambrian period in the Poleta Formation

School: Baltimore Polytechnic Institute

Grade:12

**2<sup>nd</sup> Place**

Name: Mara Coughlin

Project Title: Phenolic Content's Correlation to Harmful Algal Blooms in a Natural Setting

School: Baltimore Polytechnic Institute

Grade: 12

**1<sup>st</sup> Place**

Name: Julio Gabriel Alumbro

Project Title: Comparison of Composition Studies of Exoplanets

School: Baltimore Polytechnic Institute

Grade: 12

**High School Winner**

**Physical Science**

**Honorable Mention**

Name: William Grant

Project Title: Investigating Relationships Between AGN Output and the ISM

School: Baltimore Polytechnic Institute

Grade: 12



**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**High School Winners**

**Mathematics and Computer Science**

**3<sup>rd</sup> Place**

Name: William Gao

Project Title: Combating Health Inequities with Globalized AI: Designing a Resource-Efficient and Privacy-Preserving Federated Diagnostic System for Metastatic Breast Cancer with Applications in Developing Countries

School: Centennial High School

Grade: 11

**2<sup>nd</sup> Place**

Name: Samuel Tesfai

Project Title: Early Detection of Parkinson's Disease Using Audio-Based Machine Learning Techniques: A Pipeline for Mel Spectrogram Classification to Improve Diagnostic Accuracy

School: C. Milton Wright High School

Grade: 11

**1<sup>st</sup> Place**

Name: Louis Lapp

Project Title: Integrating Fourier Transformation and Residual Learning for Arctic Sea Ice Forecasting

School: Baltimore Polytechnic Institute

Grade: 11

**High School Winners**

**Team Project**

**Honorable Mention**

Names: Amy Akpala and Olivia Alder

Project Title: The Marble Express

School: Parkville High School

Grade: 9

Name: Chauncey Adams and Christian Gayadeen

Project Title: The CO2 Capture Conundrum

School: Mergenthaler Vocational Technical High School

Grade: 9

**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**High School Winners**

**Engineering**

**4<sup>th</sup> Place**

Name: Mia Urban

Project Title: How Mudskippers Move in Amphibious Environments

School: Baltimore Polytechnic Institute

Grade: 12

**3<sup>rd</sup> Place**

Name: Jayden Slater

Project Title: Model Rocketry Inaptitude: Developing A Practical

Transonic Model Rocket Nozzle

School: Edgewood High School

Grade: 11

**2<sup>nd</sup> Place**

Name: Larry Djabatang

Project Title: Structural Battery Airframe (for the enhancement of  
autonomous aircraft).

School: Reservoir High School

Grade: 11

**1<sup>st</sup> Place**

Name: Eesha Sagiraju

Project Title: The End of Chemo & the Future of Cancer Treatment? Using DNA Origami to  
Design a Nanocarrier for the Targeted Delivery of Monoclonal Antibodies

School: Charter School of Wilmington

Grade: 10



**Morgan State University-Science-Mathematics-Engineering Fair 2023**

**OVERALL WINNERS**

Name: Louis Lapp  
School: Baltimore Polytechnic Institute  
Grade: 11

and

Name: Jason Wang  
School: Marriotts Ridge High School  
Grade: 11