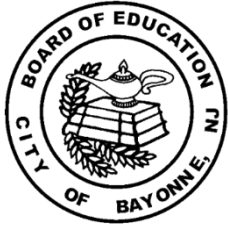


2022 – 2023 Project Innovate STEM Competition



March 15, 2023

Dear Bayonne Public School Community,

The Science Department held its 7th annual Project Innovate – Explore Research, Discover STEM Competition on Wednesday, February 8th and Friday, February 10th, 2023 from 3:30 – 6:30 PM in the library on the campus of Bayonne High School

It was wonderful to be back to an in-person STEM challenge competition. The interest was overwhelming as we had approximately 65 student teams from across the district that entered into either the Grade 5/6 elementary competition, or the junior competition which hosted teams from Grade 7/8.

Students have been preparing for this competition since late September 2022. They have been meeting once per week developing a research project or designing an engineering project. Not only did students have to develop their idea, they had to pose a question, perform research, write their procedure, create a materials list based on a budget, carry out the investigation, collect and analyze the data, draw conclusions, and finally write a research paper. On the day of the competition, they presented their findings using their poster board as a reference. Experts in the areas of Biology, Chemistry, Physics, and Engineering listened to their presentations and posed follow-up questions, such as, “How can you extend this project?” and, “What would you do differently?” Additionally, the judges provided helpful feedback and suggestions, as nine teams who received medals advanced to the prestigious RWJBarnabas Health Hudson County STEM Showcase.

I would like to take this opportunity to thank our district advisors, volunteer judges, and district coordinator for making this program possible. Without their timeless effort and support we would not be able to have a competition. Furthermore, I would like to commend our students. Continue to be curious, creative, and innovative. It was a pleasure to watch you present your ideas. Wonderful job and I look forward to the next round of competition.

Sincerely,

A handwritten signature in black ink that reads "Tara Degnan".

Tara Degnan

Director of Science

BPS STEM Showcase Coordinator

Follow us on twitter @BPSScienceDept

Grade 5/6 Team Medalists

Gold Medal

“Electrolytes: Be Sure to Replenish with the Right Drink”

Washington Community School
Ammar Emara and Andrew Labib



Silver Medal

“Biomass: Vertical vs. Traditional Farming”

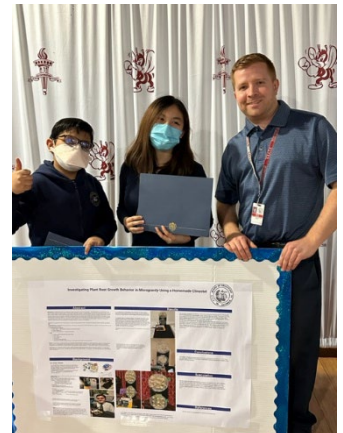
Washington Community School
Lilyana Fisher and Amanda Lopez



Bronze Medal

“Plant Root Growth Behavior in Microgravity Using an Arduino Clinostat”

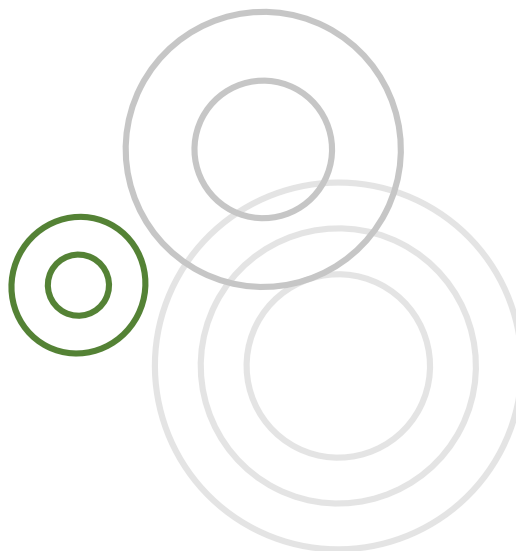
Lincoln Community School
Izyan Khan and Quyen Pham



Honorable Mention

“Rainbow Reactions”

William Shemin Midtown Community School
Harper Bosch and Timothy D’Amario



Grade 7/8 Team Medalists

Gold Medal

“LnL Ai”

Horace Mann Community School
Luca Critac and Logan Farber



Silver Medal

“It’s Crowded in Here!”

Philip G. Vroom Community School
Trinity Aberin and Garbiella Leone



Bronze Medal

“Solar Car”

Philip G. Vroom Community School
Olha Patrisiia Agutina and Mariana Perez Marquez

Honorable Mention

“Are These Big Brands Ripping You Off?”

William Shemin Midtown Community School
Steven Hanna, Yousef Athanasious, and Mark Moawad



Honorable Mention

“The Effect of Acid Rain on Seedling Germination”

Mary J. Donohoe Community School
Mark Ghobrial, Okeen Sorial, and Phelopater Wasef

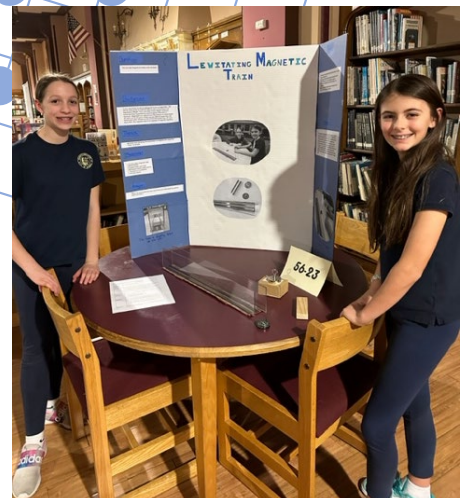
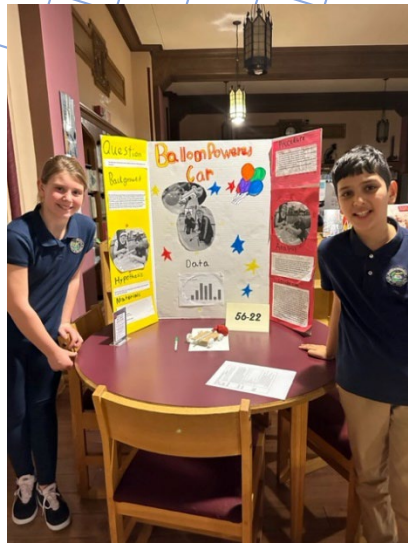


Henry E. Harris Community School

Advisor: Thomas Wilkinson

**Elan Dominici
Steven Saad
Aaron Young Freire
Sebastian Grullon Matos
Deryk Lockett
Bavly Sadek
Addison Liana**

**Lily Skowronski
Kelsey Kopacz
Maxine Tacolad
Yog Ruiz Lo
Lia Estevez
La’Nise Wallace
Adriana Soto
Ava Milachouski**





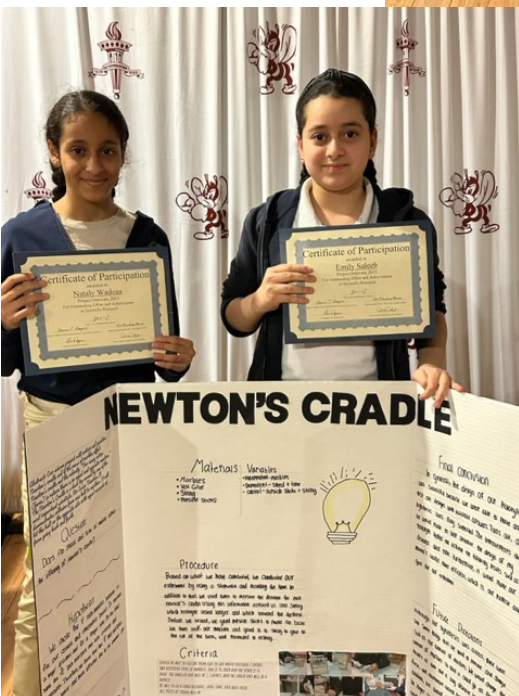
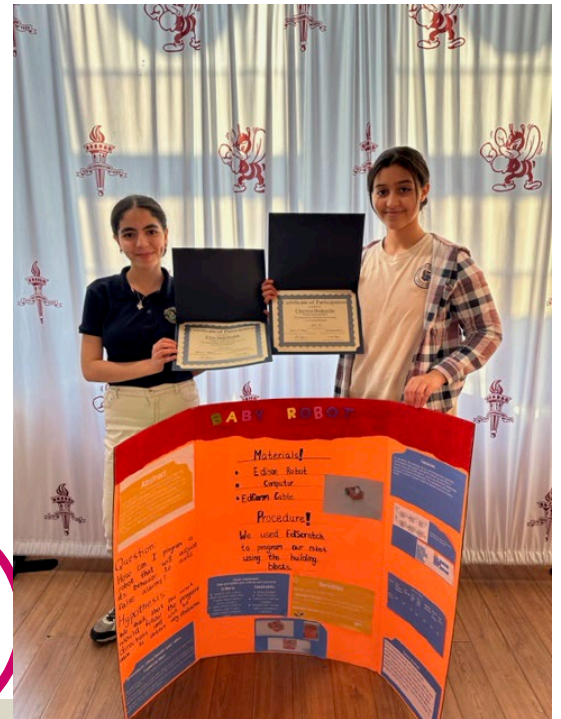
Philip G. Vroom Community School

Advisor: Anastasia Kuznetsova

Cheymaa Boukerche
Erini Abdelma
Olha Patrisiia Agutina
Mariana Perez Marquez
Steven Shehata
Chris Saleeb
Jade Bones
Leslie Larin
Rossy Carmona-Mendoza

Trinity Aberin
Gabriella Leone
Emily Saleeb
Nataly Wadea
Yandel DelRosario Nieves
Daniel Micah Malinao
Steven Khalil
Mary Adly
Jonier Metias





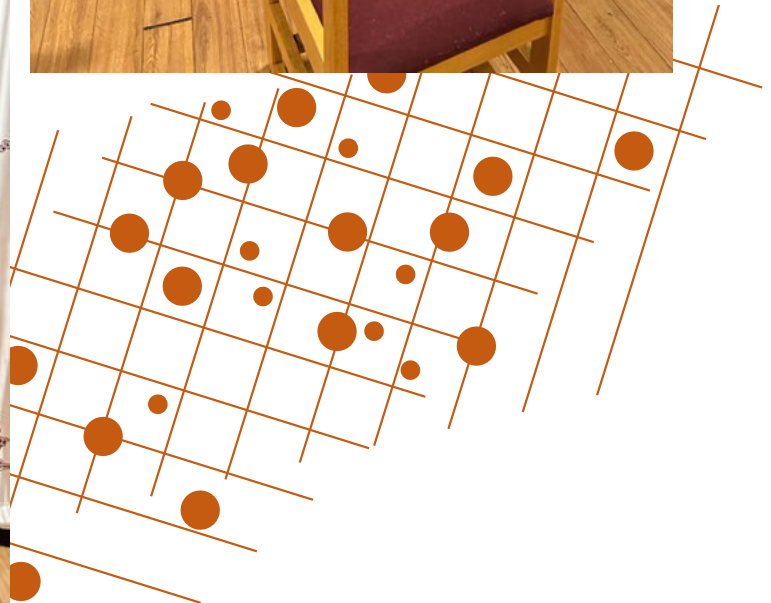
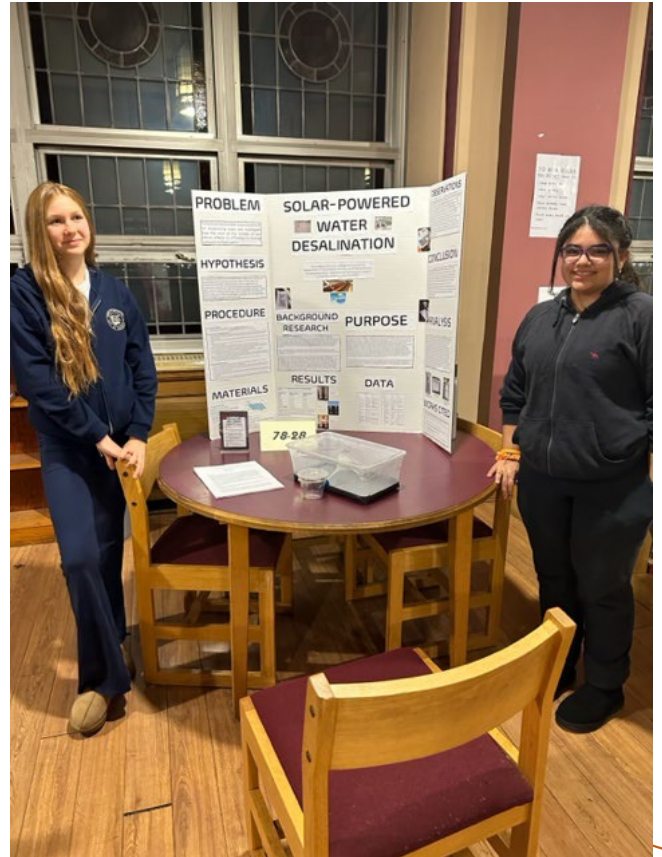
Dr. Walter F. Robinson Community School

Advisor: Anam Tazhar

Maggie Guerges

Matilda Strathausen

Ksenia Raspopina



Mary J. Donohoe Community School

Advisor: Rodolfo Morel

Mark Ghobrial

Okeen Sorial

Phelopater Wasef



Lincoln Community School

Advisor: Michael Buncek

Izyan Khan

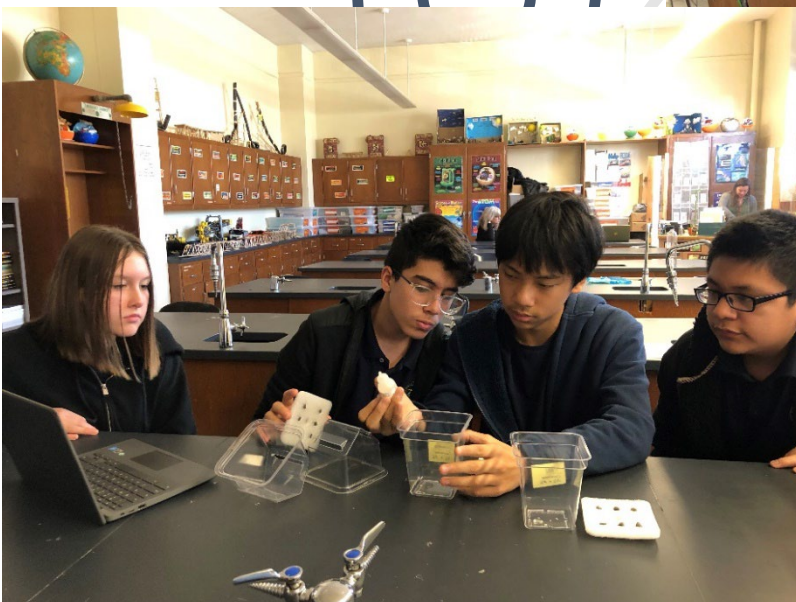
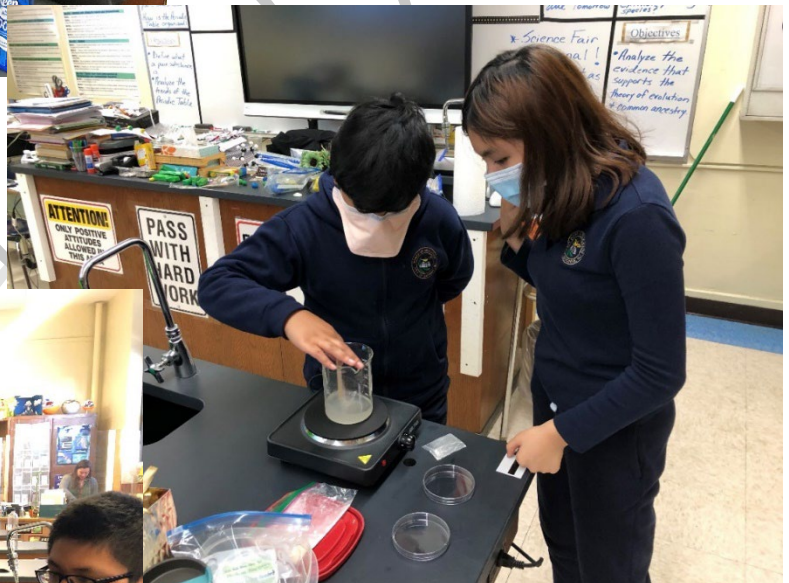
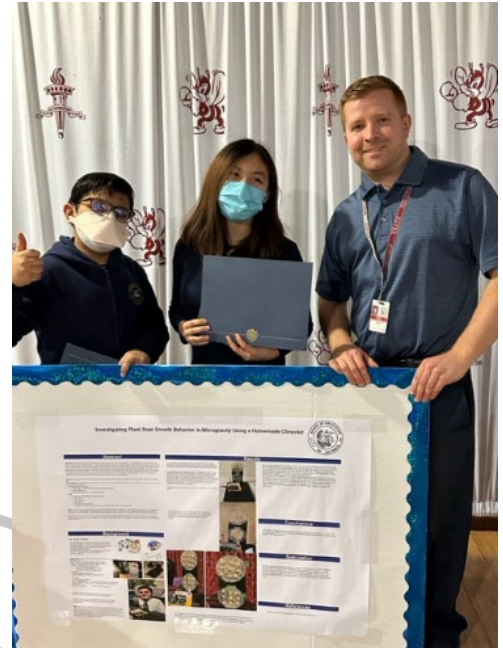
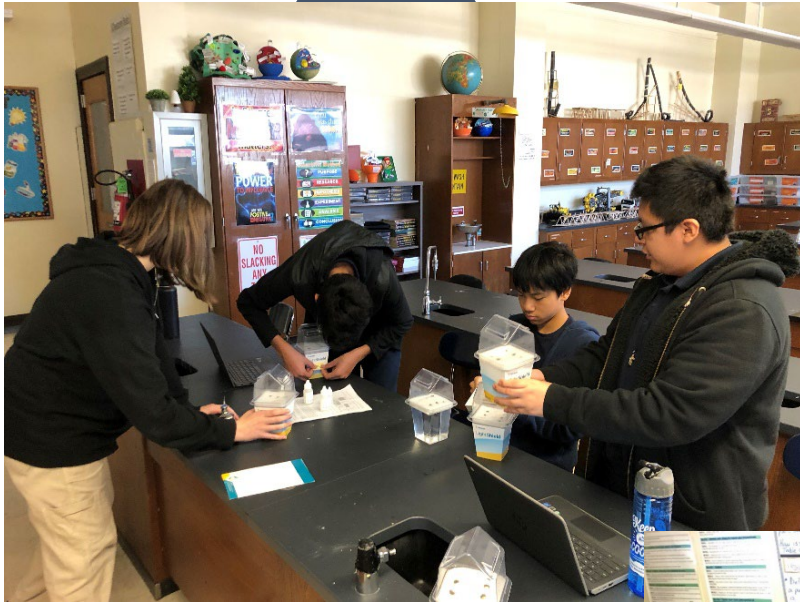
Quyen Pham

Jake Carrancho

Alan Merencias Cortez

Roxy Rubin

Emanuel Trubbo

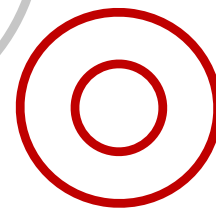


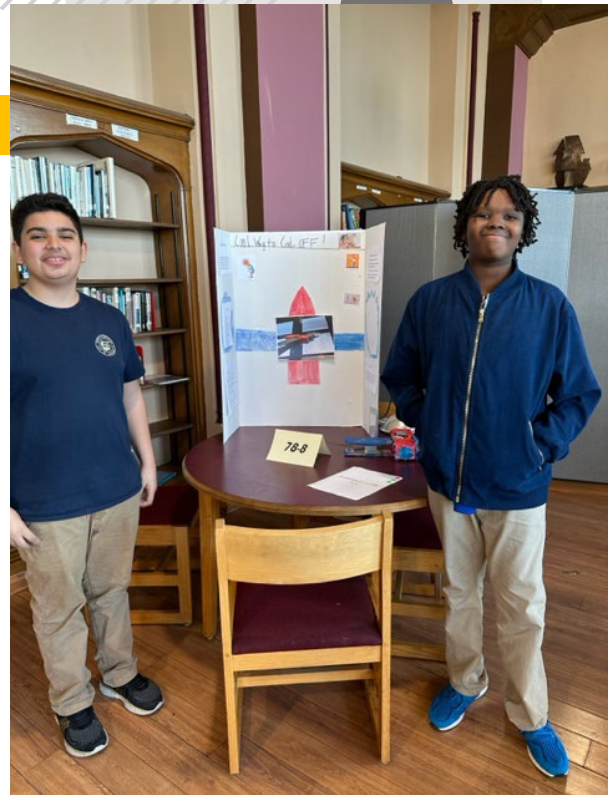
Horace Mann Community School

Advisor: Rooney Babilonia

**Carol Mekhail
Malak Elsayed
Mohamed Aboudonia
Semir Daniels
Luca Critac
Logan Farber**

**Zara Jannat
Karen Eltweel
Peyton Chi
April Heredia
Alejandra Flores
Zenona Smalec-Todd**



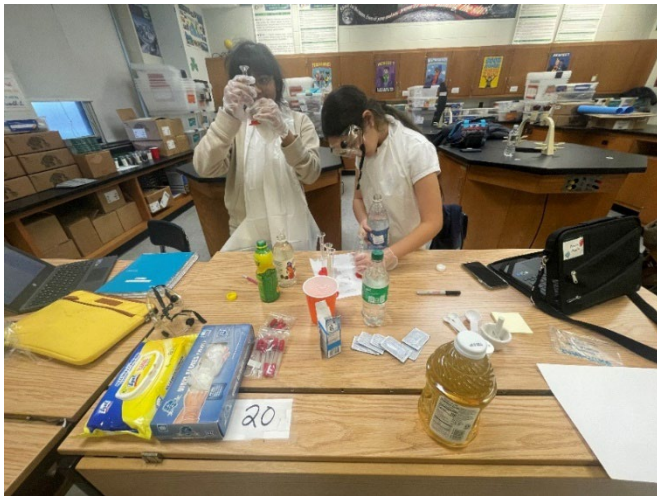


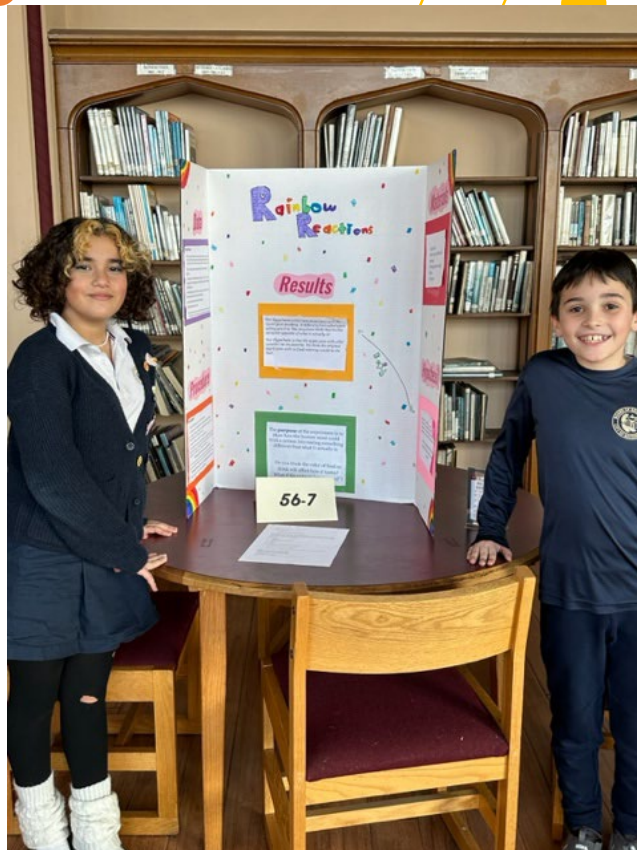
William Shemin Midtown Community School

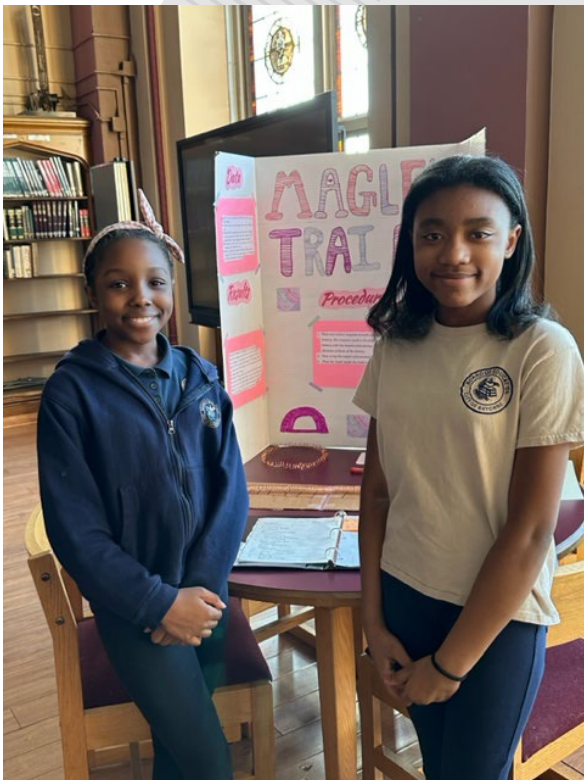
Advisor: Karey McHugh

**Aaliyah Roche
Jayson Navarro
Chaya Burley
Chastity Wearing
Lisvet Valencia
Harper Bosch
Timothy D'Amario
Jacqueline Mariano
Zaynab Umair
Sasha McCurdy**

**Mireille Megally
Gia Cipriani
Christopher Navarro
Jason Martinez
Lilly Burley
Mariam Shatlh
Myriam Gayed
Steven Hanna
Yousef Athanasious
Mark Moawad
Xola Graham**



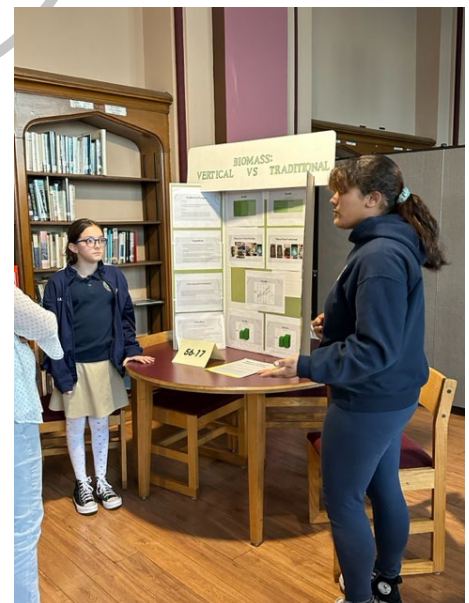
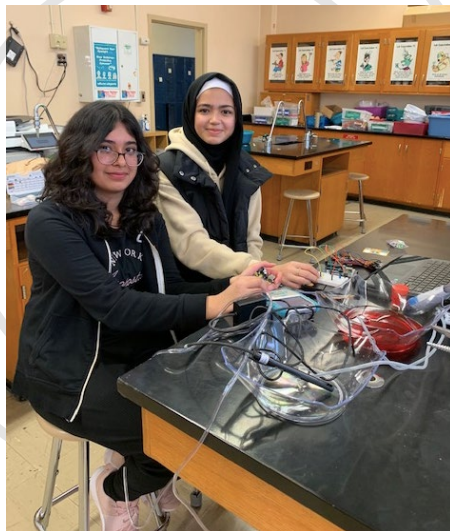




Washington Community School

Advisor: Rose Abeal

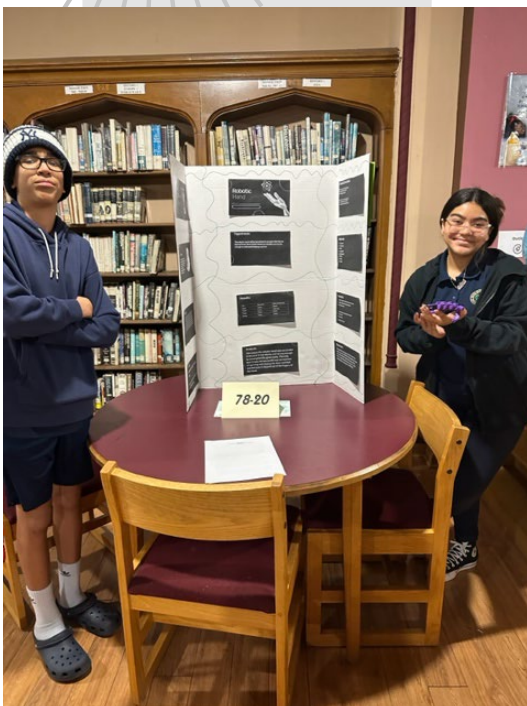
**Lilyana Fisher
Amanda Lopez
Ammar Emara
Andrew Labib
Khadija Adnan
Jana Emara**

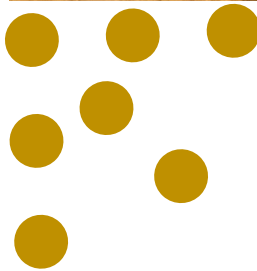
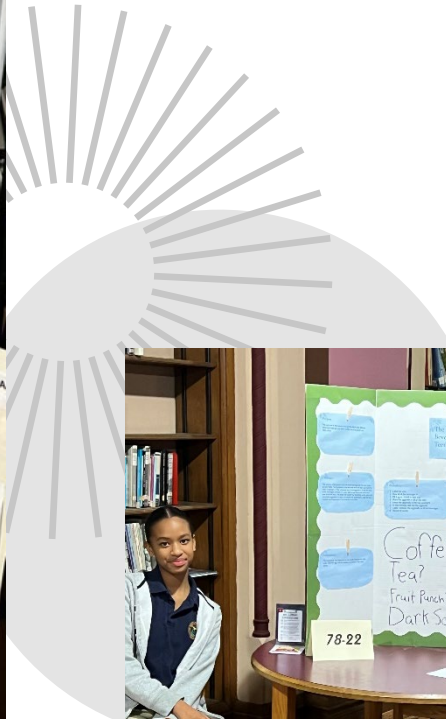
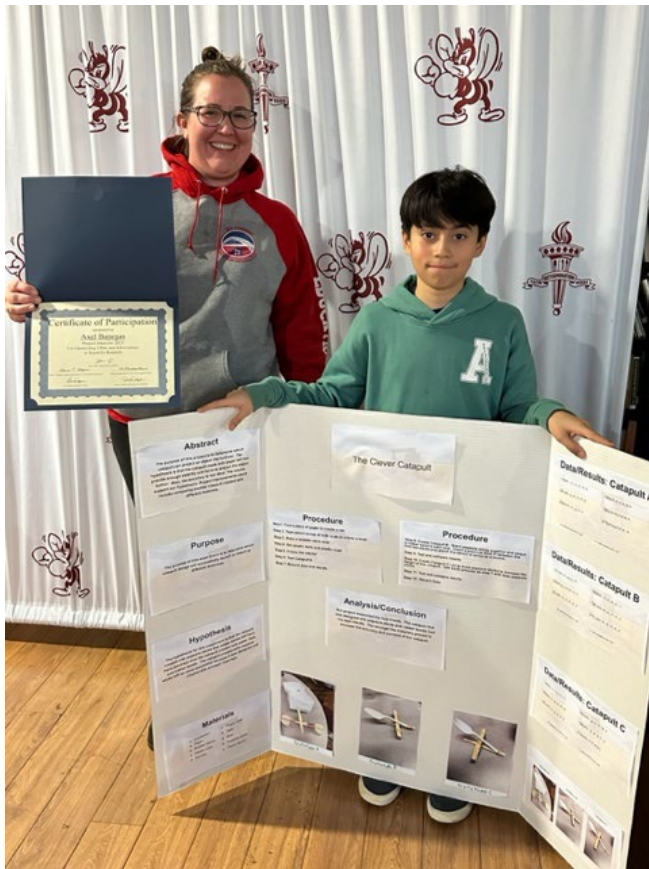


John M. Bailey Community School

Advisor: Denise Dorans

Axel Banegas
Kaleb Lambert
Dallas Nunez
Aaliyah Sosa
Joyce Haroun
Bianca Polera
Mara Ellerson
Abril Sanchez





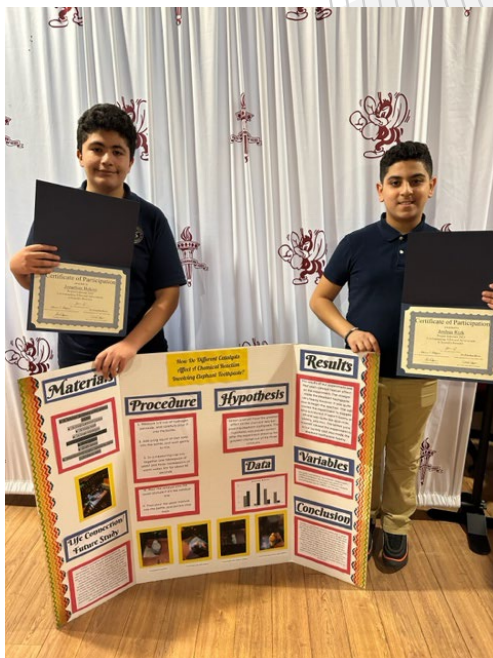
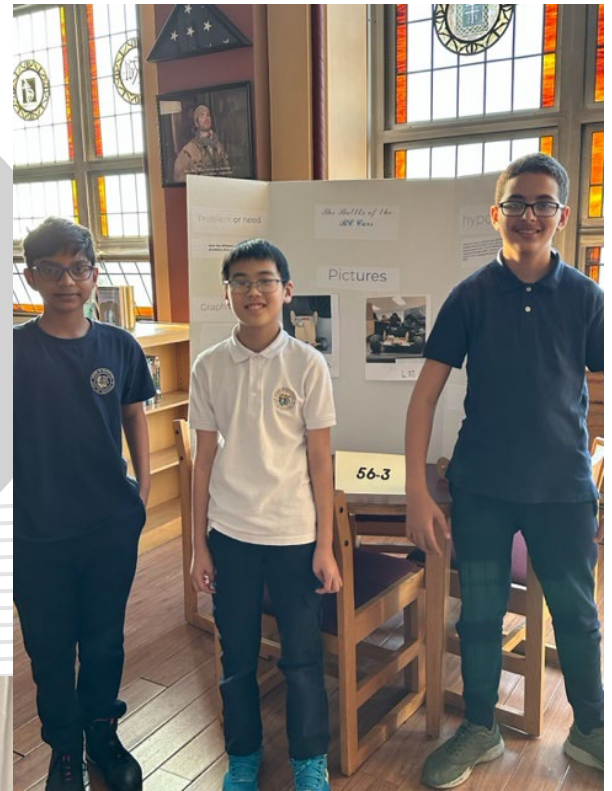
Nicholas Oresko Community School

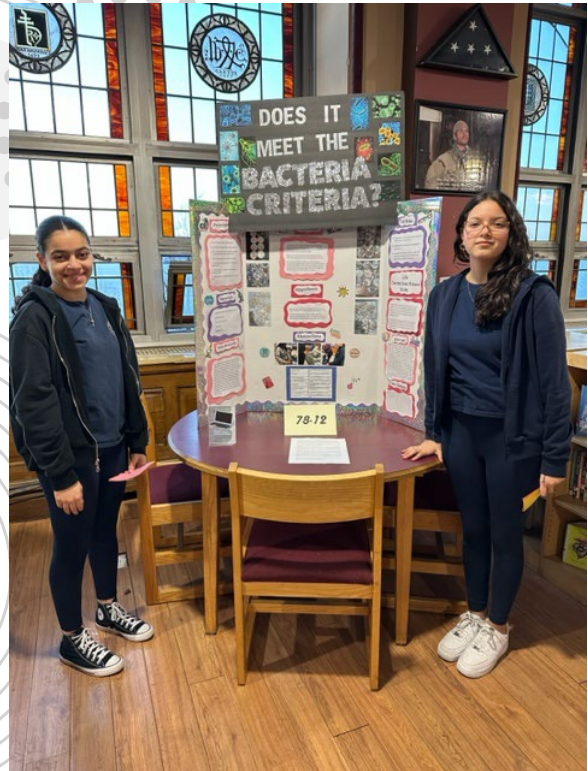
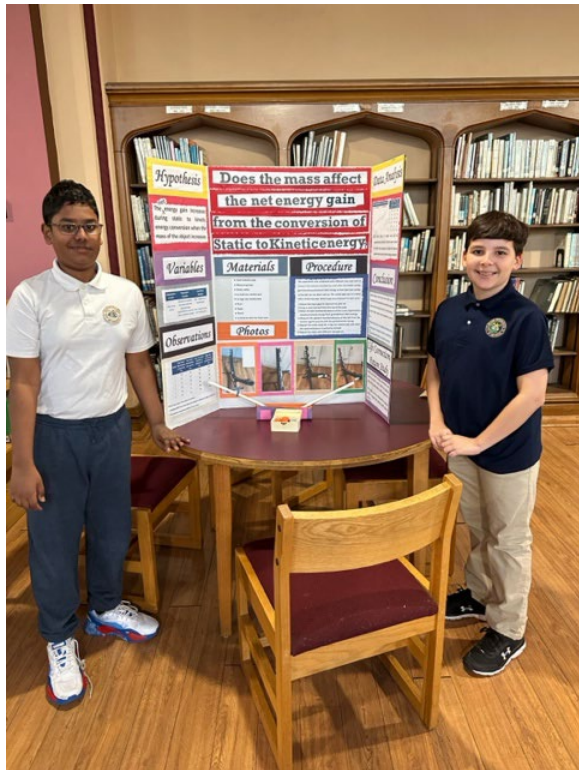
Advisor: Shallie Socorro

**Jysoun Nozha
Ivan Hunag
Arvan Raut
Harshavardham Akkenapally
Nicholas Ektheerachaisakul
Steve Gawargy
Sepia Jean-Paul
Joyce Hanna**

**Sara Habeb
Camila Elmorry
Kristen Santos
Clara Megalaa
Janani Sendhil
Ayyan Sandhu
Austin Garcia
Dylan Ashe
Joshua Rizk
Essaf Ebrahim
Jonathan Bekiet**







Bayonne High School Robotics Team

The Bayonne High School Robotics and Research team presented their work to Dr. Degnan and the elementary students at the conclusion of the competition. Students had the opportunity to drive the robots and review senior division research projects.



Bayonne High School Volunteer Judges

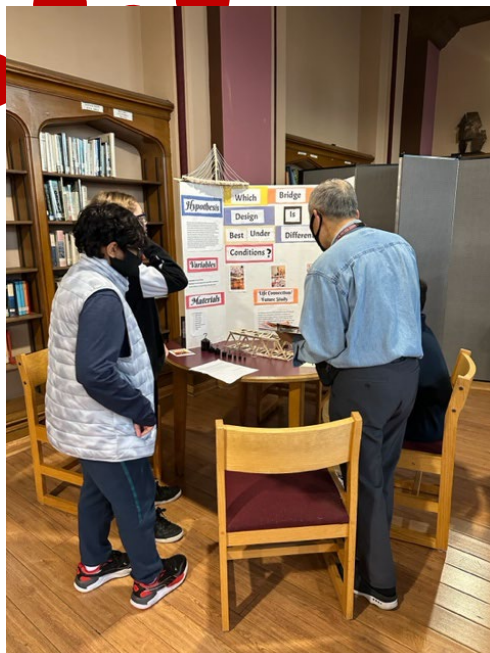
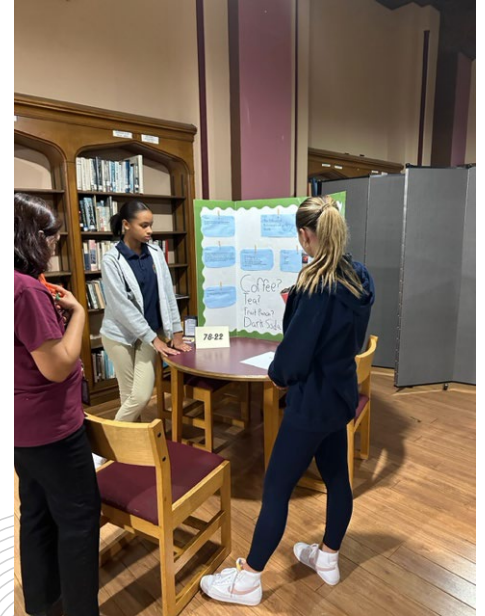
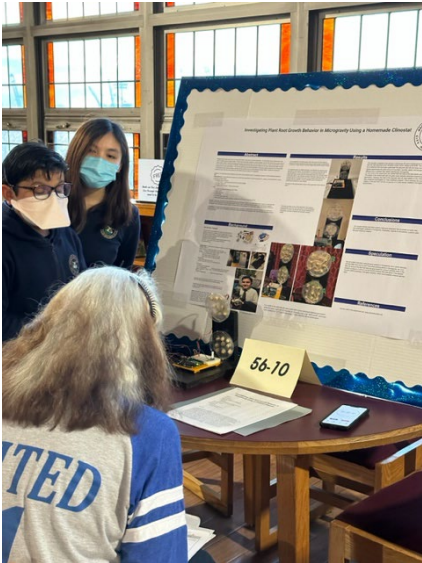
Volunteer Project Innovate Judges

Ms. Marie Aloia, Teacher of Physical Sciences and Engineering

Dr. Yoon Kwak, Teacher of Physical Sciences

Ms. Komila Patel, Teacher of Physics

Dr. Andrea Resetar, Teacher of Chemistry and Teacher of Biological Sciences



Grade 5/6 Team Projects

School	Team Member Names	Project Title
Henry E. Harris Community School	Aaron Young Freire Sebastian Grullon Matos Deryk Lockett	What is the perfect amount of air for a basketball?
Henry E. Harris Community School	Bavly Sadek Addison Liana	Ideal Number of Breaths for a Balloon Powered Car
Henry E. Harris Community School	Lily Skowronski Kelsey Kopacz	Levitating Magnetic Train
Henry E. Harris Community School	Maxine Tacolod Yog Ruiz Lo Lia Estevez	The Power of Melting Ice
Henry E. Harris Community School	La'Nise Wallace Adriana Soto Ava Milachouski	What Soda is Most Reactive to Mentos?
Henry E. Harris Community School	Elan Dominici Steven Saad	What Chemical Reaction will cause the Balloon to Inflate the most?
Philip G. Vroom Community School	Emily Saleeb Nataly Wadeaa	Newton's Cradle
Philip G. Vroom Community School	Yandel DelRosario Nieves Daniel Micah Malinao Steven Khalil	Gauss Rifle
Philip G. Vroom Community School	Mary Adly Jonier Metias	Marble Machine
Lincoln Community School	Izyan Khan Quyen Pham	Plant Root Growth Behavior in Microgravity Using an Arduino Clinostat
Horace Mann Community School	Zara Jannat Karen Eltweel	Mop shoes
Horace Mann Community School	Peyton Chi April Heredia	AAD= Anxiety Attack Device
Horace Mann Community School	Alejandra Flores Zenona SmalecTodd	Self Catching Bug Trap
William Shemin Midtown Community School	Aaliyah Roche Jayson Navarro	Can Colors Affect Your Mood?

William Shemin Midtown Community School	Chaya Burley Chasity Wearing Lisvet Valencia	Bacteria Growth. Light Vs. Dark
William Shemin Midtown Community School	Harper Bosch Timothy Damario	Rainbow Reactions
William Shemin Midtown Community School	Jacqueline Mariano Zaynab Umair	Catapult Launcher
William Shemin Midtown Community School	Sasha McCurdy Xola Graham	Magnetic Train
Washington Community School	Lilyana Fisher Amanda Lopez	Biomass: Vertical vs. Traditional Farming
Washington Community School	Ammar Emara Andrew Labib	Electrolytes: Be Sure to Replenish with the Right Drink
John M. Bailey Community School	Axel Banegas Kaleb Lambert	The Clever Catapult
Nicholas Oresko Community School	Jysoun Nozha Ivan Huang Arnav Raut	Bottle car versus Cardboard car
Nicholas Oresko Community School	Harshavardhan Akkenapally Nicholas Ektheerachaisakul Steve Gawargy	The Battles of the RC Cars
Nicholas Oresko Community School	Sepia Jean-Paul Joyce Hanna	Which battery band is most efficient in powering an electric race car?

Grade 7/8 Team Projects

School	Team Member Names	Project Title
Philip G. Vroom Community School	Cheymaa Boukerche Erini Abdelmalak	Baby Robot
Philip G. Vroom Community School	Olga Patrisiia Agutina Mariana Perez Marquez	Solar Car
Philip G. Vroom Community School	Steven Shehata Chris Saleeb Jade Bones	From Villain to Hero
Philip G. Vroom Community School	Leslie Larin Rossy Carmona-Mendoza	Effects of Liquids
Philip G. Vroom Community School	Trinity Aberin Gabriella Leone	It's Crowded in Here!
Dr. Walter F. Robinson Community School	Maggie Guergues Matilda Strathausen Ksenia Raspopina	Solar-Powered Water Desalination
Mary J. Donohoe Community School	Mark Ghobrial Okeen Sorial Phelopater Wasef	The Effect of Acid Rain On Seedling Germination
Lincoln Community School	Jake Carrancho Alan Merecias Cortez Roxy Rubin Emanuel Trubbo	Investigating Plant Macronutrients Using Hydroponics
Horace Mann Community School	Carol Mekhail Malak Elsayed	Doggie Bands
Horace Mann Community School	Mohamed Aboudonia Semir Daniels	A cool way to cool off
Horace Mann Community School	Luca Critac Logan Farber	LnL Ai
William Shemin Midtown Community School	Mireille Megally Gia Cipriani	"Neutralizing Acidic Beverages"
William Shemin Midtown Community School	Christopher Navarro Jason Martinez Lilly Burley	"Flower Follies"
William Shemin Midtown Community School	Mariam Shatl Myriam Gayed	Which filtration material leads to the best drinking water?

William Shemin Midtown Community School	Steven Hanna Yousef Athanasious Mark Moawad	Are these big brands ripping you off?
Washington Community School	Khadija Adnan Jana Emara	“Turning Type 1 Into Type None” The Human Pancreas: A Biofeedback System
John M. Bailey Community School	Dallas Nunez Aaliyah Sosa	Robo Hand
John M. Bailey Community School	Joyce Haroun Bianca Polera	Constructing a DaVinci Bridge
John M. Bailey Community School	Mara Ellerson Abril Sanchez	The Effect of Beverages on your Teeth
Nicholas Oresko Community School	Sara Habeb Camila Elmorry	Does It Meet The Bacteria Criteria?
Nicholas Oresko Community School	Kristen Santos Clara Megalaa Janani Sendhil	How do crystals form under different conditions?
Nicholas Oresko Community School	Ayyan Sandhu Austin Garcia Dylan Ashe	Which bridge design is best under certain conditions?
Nicholas Oresko Community School	Joshua Rizk Essaf Ebrahim Jonathan Bekiet	The Effect of Different Catalysts on a Chemical Reaction
Nicholas Oresko Community School	Ethan Pozo Nateshrohan Sendhilvel	Does the mass affect the energy gain from the conversion of static to kinetic energy?

“The Youth of Today. The Leaders of Tomorrow”

Dana D’Angelo, *Project Innovate District Coordinator*

Henry E. Harris Community School

Maria Kazimir, *Principal*

Luisa Jaros, *Assistant Principal*

Philip G. Vroom Community School

Stacey Janeczko, *Principal*

Heather Zalis, *Assistant Principal*

Dr. Walter F. Robinson Community School

Karen Fiermonte, Ed.D., *Principal*

Areta Costello, *Assistant Principal*

Mary J. Donohoe Community School

Philip J. Baccarella, *Principal*

Lincoln Community School

Keith Makowski, *Principal*

Heather Zalis, *Assistant Principal*

Horace Mann Community School

Catherine Quinn, Ed.D., *Principal*

Evan Wexler, *Assistant Principal*

William Shemin Midtown Community School

James Pondillo, *Principal*

Nicole Morrow, *Assistant Principal*

Christopher Romano, *Assistant Principal*

Washington Community School

George Becker, *Principal*

Lisa Wasilewski, *Assistant Principal*

Woodrow Wilson Community School

Maureen Hurley-Brown, *Principal*

Tara Furmaniak, *Assistant Principal*

John M. Bailey Community School

Albert McCormick, *Principal*

Alana Ryan, *Assistant Principal*

Nicholas Oresko Community School

Charles Costello, *Principal*

Bayonne Board of Education Administration

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Kenneth Kopacz, *Assistant Superintendent of Personnel*

Dennis C. Degnan, Ed.D., *Assistant Superintendent of Curriculum & Instruction*

Jennifer Vecchiarelli, *Assistant Superintendent of Special Services*

Wachera Rgland-Brown, Ed.D., *Chief Academic Officer*

Daniel Castles, *School Business Administrator*

Thomas Fogu, *Assistant School Business Administrator*

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Maria Valado

Dr. Gary Maita, *Board Secretary*

