

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:** General Science

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Logan Reid Ferraro**

University Heights Elementary

The affect temperature has on ball bounce height

---

**Heather Nicole Ford**

Yardville Heights Elementary

How Accurately can Mom's identify their children's clothing using only the sense of smell?

---

**Justin I Ghaffoor**

Morgan Elementary

The Bell Curve

---

**Elizabeth Sarah Legge**

Villa Victoria Academy

Don't "Run-off"

---

**Vincent Peter Lupinacci**

University Heights Elementary

The Ability of Pollutants to Travel Through Soil Types With Different Amounts of Pore Space

---

**Jimmy Moscarello**

Yardville Heights Elementary

Yeast on the RISE

---

**Amy E. Siegel**

University Heights Elementary

Water Pollution

---

**Christopher Smith**

McGalliard Elementary

Hold It

---

**Alexandra Mary Vo**

Villa Victoria Academy

Do certain liquids cause metal to rust faster?

---

**Kelsey Wyatt**

Villa Victoria Academy

Which Kind of Rock Sparks the Most?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:** General Science

**Meritorious Achievement**

**From:** Mercer Science and Engineering Club

---

**Yash Hardev Dave**

Robinson Elementary

The Greenhouse Effect and The Global Warming.

---

**Stephanie England**

Yardville Elementary

Let there be light!

---

**Riley Schmitt**

University Heights Elementary

Falling into Orbit

---

**TYLER WARNER**

McGalliard Elementary

HOW SLOW CAN YOU GO?

---

**Cecily Zecca-Naples**

Villa Victoria Academy

It's Gotta Gas

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:** General Science

**Outstanding Achievement**

**From:** Mercer Science and Engineering Club

---

**Sabrina Andreadidis**

University Heights Elementary

CAN WARM UPS HELP YOU HOLD A  
NOTE?

---

**Jack Murphy O'Donnell**

University Heights Elementary

Should You Shoot From the Hip?

---

**Tyler Peerman**

Mercerville Elementary

Altered vs Unaltered Bats

---

**Natalie Ruddy**

Villa Victoria Academy

How Does Acid Rain Affect Aquatic Life?

---

**Nicholas Swan**

Sayen Elementary

Mummy Mia

---

**Cassidy Wagner**

Robinson Elementary

The Mummy Returns...as my beef jerky --A  
comparison of mummification and modern day  
food dehydration techniques

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:** General Science

**Superior Achievement**

**From:** Mercer Science and Engineering Club

---

**Ashley Anne Abrams**

Robinson Elementary

Which rocks conduct electricity?

---

**Matthew Bauerle**

Mercerville Elementary

Blood Spatter

---

**Evan Charles Bedser**

University Heights Elementary

The "Disc"overy of Inertia

---

**Jillian Robyn Corn**

Sayen Elementary

Can Hand Warmers Be Used to Determine  
Oxygen in Air?

---

**Jarett Rockhill Elser**

Sayen Elementary

What Makes Water Hotter?

---

**Bridgid Greed**

Villa Victoria Academy

Do Lead Detection Kits Work?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:**

**Middle School Program Award**

**From:** Society For Science & The Public

---

**Sabrina Andreadidis**

University Heights Elementary

CAN WARM UPS HELP YOU HOLD A NOTE?

---

**Evan Charles Bedser**

University Heights Elementary

The "Disc"overy of Inertia

---

**Christopher Betz**

St. Gregory the Great School

How Do Different Gear Ratios Affect The Output of a Turbine?

---

**Danielle Elizabeth Caruso**

Villa Victoria Academy

Glass Under Grass: a Sustainable Drainage System

---

**Jillian Robyn Corn**

Sayen Elementary

Can Hand Warmers Be Used to Determine Oxygen in Air?

---

**Yash Hardev Dave**

Robinson Elementary

The Greenhouse Effect and The Global Warming.

---

**Meagan Davey**

Villa Victoria Academy

Are Birds Right or Left Footed?

---

**Jarett Rockhill Elser**

Sayen Elementary

What Makes Water Hotter?

---

**Stephanie England**

Yardville Elementary

Let there be light!

---

**Kara A. Hageman**

Timberlane Middle

That's the Way the Ball Bounces

---

**Ashish Krishna**

Chapin School

Computational Exploration of Proteins

---

**Kaitlyn Louise LoCastro**

St. Gregory the Great School

"Pink and Blue, Which Diaper Will Do?"

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:**

**Middle School Program Award**

**From:** Society For Science & The Public

---

**Zoe Helene MacIntyre**

Villa Victoria Academy

Feline Forensic

---

**Marissa Kathryn Migliarino**

Villa Victoria Academy

The effect of different insulations on the melting rate of ice.

---

**Jenna Francis Mollica**

Villa Victoria Academy

Is Green Grass Worth It

---

**Jack Murphy O'Donnell**

University Heights Elementary

Should You Shoot From the Hip?

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve Sonoluminescence Using Dilute Water Solutions?

---

**Shannon Elise O'Mara**

Villa Victoria Academy

Are We Breathing Toxic Liquids?

---

**Tyler Peerman**

Mercerville Elementary

Altered vs Unaltered Bats

---

**Michael S Prihoda**

St. Gregory the Great School

"Hold The Salt Please"

---

**Brigid Quinn-Gordan**

Villa Victoria Academy

Winglets, what's good for the goose...

---

**Natalie Ruddy**

Villa Victoria Academy

How Does Acid Rain Affect Aquatic Life?

---

**Robbie Sporek**

St. Gregory the Great School

"Does The Type of Milk or Sugar Coating on Cereal Affect its Sogginess?"

---

**Nicholas Swan**

Sayen Elementary

Mummy Mia

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:**

**Middle School Program Award**

**From:** Society For Science & The Public

---

**Dora von Trentini**

Why Spruce???

Chapin School

---

**Cassidy Wagner**

The Mummy Returns...as my beef jerky --A comparison of mummification and modern day food dehydration techniques

Robinson Elementary

---

**Cecily Zecca-Naples**

It's Gotta Gas

Villa Victoria Academy

---

---

**Division:** Junior

**Category:** Biological

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Austin Hanby**

"Run-It's Raining Acid!"

St. Gregory the Great School

---

**Tess Olivia McGuinness**

Stretching It; What Body Types Are The Most Flexible?

Villa Victoria Academy

---

**Samantha Catherine Morgan**

A River Out of Balance

Villa Victoria Academy

---

**Julia Nicole Vari**

Energy Drinks and Their Effect on Athletes

St. Ann's School

---

**Benjamin Wagner**

"Down Came The Rain and Washed The Material Out"

St. Gregory the Great School

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:** Biological

**Meritorious Achievement**

---

**From:** Mercer Science and Engineering Club

**Kaitlyn Louise LoCastro**

"Pink and Blue, Which Diaper Will Do?"

St. Gregory the Great School

---

**Jenna Francis Mollica**

Is Green Grass Worth It

Villa Victoria Academy

---

**Division:** Junior

**Category:** Biological

**Outstanding Achievement**

---

**From:** Mercer Science and Engineering Club

**Meagan Davey**

Are Birds Right or Left Footed?

Villa Victoria Academy

---

**Ashish Krishna**

Computational Exploration of Proteins

Chapin School

---

**Division:** Junior

**Category:** Biological

**Superior Achievement**

---

**From:** Mercer Science and Engineering Club

**Zoe Helene MacIntyre**

Feline Forensic

Villa Victoria Academy

---

**Michael S Prihoda**

"Hold The Salt Please"

St. Gregory the Great School

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:** Physical

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Marissa R Cucinotta**

St. Gregory the Great School

'Can You Hear It Now? What Size Coil Allows a Foxhole Radio to Receive More Stations?'

---

**Adam John Cyran**

Emily C. Reynolds Middle

What type of light can best be seen through fog?

---

**Alexander M Hanby**

St. Gregory the Great School

"Watts Up?" An Energy Comparison of Household Light Bulbs."

---

**Christina Martini**

St. Gregory the Great School

""Holding Power"

---

**Marianna McKenna**

St. Gregory the Great School

---

"Solar Arrays"

---

---

**Division:** Junior

**Category:** Physical

**Meritorious Achievement**

**From:** Mercer Science and Engineering Club

---

**Marissa Kathryn Migliarino**

Villa Victoria Academy

The effect of different insulations on the melting rate of ice.

---

**Brigid Quinn-Gordan**

Villa Victoria Academy

Winglets, what's good for the goose...

---

**Robbie Sporek**

St. Gregory the Great School

"Does The Type of Milk or Sugar Coating on Cereal Affect its Sogginess?"

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:** Physical

**Outstanding Achievement**

---

**From:** Mercer Science and Engineering Club

---

**Kara A. Hageman**

Timberlane Middle

That's the Way the Ball Bounces

---

**Shannon Elise O'Mara**

Villa Victoria Academy

Are We Breathing Toxic Liquids?

---

**Dora von Trentini**

Chapin School

Why Spruce???

---

---

**Division:** Junior

**Category:** Physical

**Superior Achievement**

---

**From:** Mercer Science and Engineering Club

---

**Christopher Betz**

St. Gregory the Great School

How Do Different Gear Ratios Affect The Output of a Turbine?

---

**Danielle Elizabeth Caruso**

Villa Victoria Academy

Glass Under Grass: a Sustainable Drainage System

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve Sonoluminescence Using Dilute Water Solutions?

---

---

**Division:** Elementary

**Category:**

**Computer and Engineering Award**

---

**From:** Mercer Science and Engineering Club

---

**Brendan Piers Cody**

University Heights Elementary

KEPING YOU IN SUSPENSE

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:**

**Computer and Engineering Award**

**From:** Mercer Science and Engineering Club

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve  
Sonoluminescence Using Dilute Water  
Solutions?

---

**Shannon Elise O'Mara**

Villa Victoria Academy

---

Are We Breathing Toxic Liquids?

---

---

**Division:** Senior

**Category:**

**Computer and Engineering Award**

**From:** Mercer Science and Engineering Club

---

**Christina Amendola**

Villa Victoria Academy

How does a robot navigate a maze with tactile  
and infrared sensors?

---

**John Wu**

Princeton High

---

Ear Recognition - A New Biometrics Device

---

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**Division:** Elementary

**Category:**

**Most Superior**

**From:** Rider University

---

**James Alexander Boland**

Morgan Elementary

---

Get The Lead Out!

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:** Biological

**Most Superior**

**From:** Rider University

---

**Natalie Lynne Brecker**

Growth Enhancers

Villa Victoria Academy

---

**Division:** Junior

**Category:** Physical

**Most Superior**

**From:** Rider University

---

**Alexander M Hanby**

"Watts Up?" An Energy Comparison of Household Light Bulbs."

St. Gregory the Great School

---

**Division:** Senior

**Category:**

**Most Superior**

**From:** Rider University

---

**Christina Razzano**

Making Methane

Villa Victoria Academy

---

**Division:** Senior

**Category:**

**Engineering - International Sustainable World**

**From:** Cosmos Foundation

---

**Thomas Anthony Giordano**

Should the Effectiveness of an Insulative Material Come Before Its Sustainability?

Hamilton High East

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Energy - International Sustainable World**

**From:** Cosmos Foundation

---

**Christina Razzano**

Villa Victoria Academy

Making Methane

---

**Division:** Senior

**Category:**

**Best Use of Photography**

**From:** Le Camera and Video

---

**John Wu**

Princeton High

Ear Recognition - A New Biometrics Device

---

**Division:** Junior

**Category:**

**Honorable Mention**

**From:** U.S. Navy/Marine Corps

---

**Danielle Elizabeth Caruso**

Villa Victoria Academy

Glass Under Grass: a Sustainable Drainage System

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve Sonoluminescence Using Dilute Water Solutions?

---

**Michael S Prihoda**

St. Gregory the Great School

"Hold The Salt Please"

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**U.S Navy/Marine Corps Award**

**From:** U.S. Navy/Marine Corps

---

**Ramses Daaka**

Trenton Central High

Is it possible to clean the air after dirty bomb contamination?

---

**Sundiata Zahur Daaka**

Trenton Central High

How Clean is Clean: Is it possible to clean up after a dirty bomb attack

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Honorable Mention**

**From:** U.S. Army Research Office

---

**Scott Anthes**  
Hamilton High East

Do Stents Really Help Reduce the Pressure  
Created by a Collapsed Artery?

---

**Gianna V Gard**  
Villa Victoria Academy

Can UV-induced fluorescence detect motor oil  
contamination in soil?

---

**Thomas Anthony Giordano**  
Hamilton High East

Should the Effectiveness of an Insulative  
Material Come Before Its Sustainability?

---

**Veronica Kim**  
West Windsor-Plainsboro High

Photo-induced Motions of Small Particles

---

**Kevin Mantel**  
Hamilton High East

Does Temperature Affect the Photoelectric  
Effect?

---

**Christina Razzano**  
Villa Victoria Academy

Making Methane

---

**Colleen Van Driesen**  
Villa Victoria Academy

Do different locations affect the level of acid  
rain or is it global?

---

**Sandy Zaher**  
Hamilton High East

The Effects of pH and Ionic Concentration on  
The Function of Pepsin Enzyme

---

**Division:** Senior

**Category:**

**Engineering Award**

**From:** U.S. Army Research Office

---

**Kaitlin Elizabeth Kenney**  
Villa Victoria Academy

The Mystery of the Geodesic Dome

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Environmental Sciences Award**

**From:** U.S. Army Research Office

---

**Jessica Hoff**  
Hamilton High East

Does the application of winter road salt affect the growth of grass?

---

**Division:** Senior

**Category:**

**Physical Sciences Award**

**From:** U.S. Army Research Office

---

**Rachel L. Santitoro**  
Hamilton High East

Plasmodial Slime Molds: Biodiversity and Optimal Growing Conditions

---

**Division:** Senior

**Category:**

**Life Sciences Award**

**From:** U.S. Army Research Office

---

**Melanie Alexis Mostrowski**  
Hamilton High East

The Old and the Beautiful: How Does Age Define Beauty?

---

**Division:** Senior

**Category:**

**Mathematics and Computer Science Award**

**From:** U.S. Army Research Office

---

**Ilya Podkopaev**  
West Windsor-Plainsboro High North

To Breed, or Not to Breed?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**1st**

**From:** U.S. Army Research Office

---

**John Wu**

Ear Recognition - A New Biometrics Device

Princeton High

---

**Division:** Senior

**Category:**

**Stockholm Junior Water Prize**

**From:** Water Environment Federation

---

**Amanda Worrall**

Does population size have an affect on water quality?

Hamilton High East

---

**Division:** Junior

**Category:**

**NOAA Award**

**From:** National Oceanic and Atmospheric Administration

---

**Mariah Ann Guarnaccia**

Tsunami

Villa Victoria Academy

---

**Division:** Junior

**Category:**

**Honorable Mention**

**From:** Theobald Smith Society

---

**John David Kurman**

The Best Conditions for Mold Growth

Westerly Learning Center

---

**Gregory Laurinavicius**

"Can I Grow The Mold Penicillium?"

St. Gregory the Great School

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**3rd**

**Category:**

**From:** Theobald Smith Society

---

**Katie Elizabeth O'Mara**

Villa Victoria Academy

Biofuel Production from the Decomposition of Cellulose

---

**Division:** Senior

**2nd**

**Category:**

**From:** Theobald Smith Society

---

**Rachel L. Santitoro**

Hamilton High East

Plasmodial Slime Molds: Biodiversity and Optimal Growing Conditions

---

**Division:** Senior

**1st**

**Category:**

**From:** Theobald Smith Society

---

**Christina Razzano**

Villa Victoria Academy

Making Methane

---

**Division:** Senior

**Engineering Award**

**Category:**

**From:** Herbert Hoover Presidential Library Association

---

**Kaitlin Elizabeth Kenney**

Villa Victoria Academy

The Mystery of the Geodesic Dome

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Superior Achievement**

**From:** ASM International Foundation

---

**Thomas Anthony Giordano**

Hamilton High East

Should the Effectiveness of an Insulative Material Come Before Its Sustainability?

---

**Division:** Senior

**Category:**

**Superior Achievement**

**From:** American Psychological Association

---

**Emmanuella Dorvil**

Hamilton High East

Do the effect of the Stroop Effect change if the words are rotated.

---

**Division:** Senior

**Category:**

**Superior Achievement**

**From:** American Meteorological Society

---

**Colleen Van Driesen**

Villa Victoria Academy

Do different locations affect the level of acid rain or is it global?

---

**Division:** Senior

**Category:**

**Special Award**

**From:** Association for Women Geoscientists

---

**Christina Razzano**

Villa Victoria Academy

Making Methane

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Superior Achievement**

**Category:**

**From:** Society for In Vitro Biology

---

**Scott Anthes**  
Hamilton High East

Do Stents Really Help Reduce the Pressure  
Created by a Collapsed Artery?

---

**Division:** Senior

**Intel Excellence in Computer Science**

**Category:**

**From:** Intel Corp.

---

**John Wu**  
Princeton High

Ear Recognition - A New Biometrics Device

---

**Division:** Senior

**Special Award**

**Category:**

**From:** Mu Alpha Theta

---

**Ilya Podkopaev**  
West Windsor-Plainsboro High North

To Breed, or Not to Breed?

---

**Division:** Junior

**Excellence in Engineering**

**Category:**

**From:** National Society of Professional  
Engineers

---

**Christopher Betz**  
St. Gregory the Great School

How Do Different Gear Ratios Affect The  
Output of a Turbine?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Special Award**

**From:** U.S. Metric Association

---

**Mikkyla R McLean**

Trenton Central High

Yeast and pH: the effects of yeast on the pH of water and the effect of pH on yeast growth

---

**Division:** Senior

**Category:**

**Excellence in Engineering**

**From:** Yale Science and Engineering Association

---

**Kaitlin Elizabeth Kenney**

Villa Victoria Academy

The Mystery of the Geodesic Dome

---

**Division:** Senior

**Category:**

**The Regional Ricoh Sustainable Development Award**

**From:** Ricoh Corp.

---

**Thomas Anthony Giordano**

Hamilton High East

Should the Effectiveness of an Insulative Material Come Before Its Sustainability?

---

**Division:** Elementary

**Category:**

**Airtrax Most Innovative Project**

**From:** Airtrax Corp.

---

**Donald Dudich**

Mercerville Elementary

Does Weight Distribution Affect Quarter Midgets?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:**

**Airtrax Most Innovative Project**

**From:** Airtrax Corp.

---

**Robbie Sporek**

St. Gregory the Great School

"Does The Type of Milk or Sugar Coating on Cereal Affect its Sogginess?"

---

**Division:** Senior

**Category:**

**Airtrax Most Innovative Project**

**From:** Airtrax Corp.

---

**Veronica Kim**

West Windsor-Plainsboro High

Photo-induced Motions of Small Particles

---

**Division:** Elementary

**Category:**

**3rd**

**From:** Federal Alarm

---

**Stephanie England**

Yardville Elementary

Let there be light!

---

**Division:** Elementary

**Category:**

**2nd**

**From:** Federal Alarm

---

**Nicholas Swan**

Sayen Elementary

Mummy Mia

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Elementary

**Category:**

**1st**

**From:** Federal Alarm

---

**Courtney Silakoski**

Villa Victoria Academy

Looks aren't everything the proof's in the DNA.

---

**Division:** Junior

**Category:**

**3rd**

**From:** Federal Alarm

---

**John David Kurman**

Westerly Learning Center

The Best Conditions for Mold Growth

---

**Division:** Junior

**Category:**

**2nd**

**From:** Federal Alarm

---

**Amanda Alston**

St. Gregory the Great School

"A Glass of Vitamin C a Day"

---

**Division:** Junior

**Category:**

**1st**

**From:** Federal Alarm

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve  
Sonoluminescence Using Dilute Water  
Solutions?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior  
**3rd**

**Category:**  
**From:** Federal Alarm

---

**Sandy Zaher**  
Hamilton High East

The Effects of pH and Ionic Concentration on  
The Function of Pepsin Enzyme

---

**Division:** Senior  
**2nd**

**Category:**  
**From:** Federal Alarm

---

**Danielle Victoria Reenstra**  
Hamilton High East

The Phadebas Forensic Press Test: Do  
Temperature and pH Changes Affect the Results?

---

**Division:** Senior  
**1st**

**Category:**  
**From:** Federal Alarm

---

**Elizabeth Claire Tadie**  
Villa Victoria Academy

Effects of Cryopreservation on Seeds of  
Phaseolus Limensis, Allium Cepa, and Brassica  
Oleracea

---

**Division:** Junior  
**2nd Place - Optics**

**Category:**  
**From:** MIRTHE

---

**Hannah Shevlin**  
St. Gregory the Great School

""Burn, Baby Burn!"

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:**

**1st Place - Optics**

**From:** MIRTHE

---

**Molly Beth O'Mara**

Villa Victoria Academy

Light from Sound Part 2: Can I Achieve  
Sonoluminescence Using Dilute Water  
Solutions?

---

**Division:** Junior

**Category:**

**Honorable Mention - Environmental  
Science**

**From:** MIRTHE

---

**Jenna Francis Mollica**

Villa Victoria Academy

Is Green Grass Worth It

---

**Division:** Junior

**Category:**

**2nd Place - Environmental Science**

**From:** MIRTHE

---

**Bethany Pacifico**

St. Gregory the Great School

"The Trouble In the Bubbles"

---

**Division:** Junior

**Category:**

**1st Place - Environmental Science**

**From:** MIRTHE

---

**Shannon Elise O'Mara**

Villa Victoria Academy

Are We Breathing Toxic Liquids?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Junior

**Category:**

**Honorable Mention - Health**

**From:** MIRTHE

---

**Elaine Stewart**

"Poisonous Play"

St. Gregory the Great School

---

**Division:** Junior

**Category:**

**2nd Place - Health**

**From:** MIRTHE

---

**Julia Nicole Vari**

Energy Drinks and Their Effect on Athletes

St. Ann's School

---

**Division:** Junior

**Category:**

**1st Place - Health**

**From:** MIRTHE

---

**Robert H. Conway**

"Water-To Drink or Not to Drink?"

St. Gregory the Great School

---

**Division:** Senior

**Category:**

**Honorable Mention - Optics**

**From:** MIRTHE

---

**Gianna V Gard**

Can UV-induced fluorescence detect motor oil contamination in soil?

Villa Victoria Academy

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**2nd Place - Optics**

**From:** MIRTHE

---

**Kevin Mantel**  
Hamilton High East

Does Temperature Affect the Photoelectric Effect?

---

**Division:** Senior

**Category:**

**1st Place - Optics**

**From:** MIRTHE

---

**Veronica Kim**  
West Windsor-Plainsboro High

Photo-induced Motions of Small Particles

---

**Division:** Senior

**Category:**

**2nd Place - Environmental Science**

**From:** MIRTHE

---

**Colleen Van Driesen**  
Villa Victoria Academy

Do different locations affect the level of acid rain or is it global?

---

**Division:** Senior

**Category:**

**1st Place - Environmental Science**

**From:** MIRTHE

---

**Ramses Daaka**  
Trenton Central High

Is it possible to clean the air after dirty bomb contamination?

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**2nd Place - Health**

**From:** MIRTHE

---

**Laine Taylor Bishop**

Hamilton High East

Soothe The Heart: Is there a relationship between scent and its effect on heart rate and blood pressure?

---

**Division:** Senior

**Category:**

**1st Place - Health**

**From:** MIRTHE

---

**Jacqueline Cunningham**

Trenton Catholic Academy

Something In The Air: Airborne Allergens

---

**Division:** Senior

**Category:** Animal Sciences

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Michelle Alexandra Jaworski**

Hamilton High East

Do Sound Waves Have Negative Effects on Arthropods?

---

**Division:** Senior

**Category:** Behavioral and Social Science

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Tanisha Rosemarie Dorner**

Hamilton High East

Do Speech Deficiencies Remedy Themselves Without Intervention?

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## *2008 Mercer Science and Engineering Fair Results*

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**Division:** Senior

**Category:** Engineering Materials and  
Bioengineering

**Honorable Mention**

**From:** Mercer Science and Engineering Club

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**Saumitra Sahi**

Princeton High

Two designs for piezoelectric transducers based  
on Zinc Oxide nanowires

---

**Division:** Senior

**Category:** Environmental Management

**Honorable Mention**

**From:** Mercer Science and Engineering Club

---

**Gianna V Gard**

Villa Victoria Academy

Can UV-induced fluorescence detect motor oil  
contamination in soil?

---

**Division:** Senior

**Category:** Behavioral and Social Science

**Third Place**

**From:** Mercer Science and Engineering Club

---

**Melanie Alexis Mostrowski**

Hamilton High East

The Old and the Beautiful: How Does Age  
Define Beauty?

---

**Division:** Senior

**Category:** Computer Science

**Third Place**

**From:** Mercer Science and Engineering Club

---

**Christina Amendola**

Villa Victoria Academy

How does a robot navigate a maze with tactile  
and infrared sensors?

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## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:** Environmental Management

**Third Place**

**From:** Mercer Science and Engineering Club

---

**Sundiata Zahur Daaka**

Trenton Central High

How Clean is Clean: Is it possible to clean up after a dirty bomb attack

---

**Division:** Senior

**Category:** Plant Sciences

**Third Place**

**From:** Mercer Science and Engineering Club

---

**Joanna Marie Latini**

Villa Victoria Academy

Does Aloe Vera have an effect on the regeneration of planaria?

---

**Division:** Senior

**Category:** Behavioral and Social Science

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Emmanuella Dorvil**

Hamilton High East

Do the effect of the Stroop Effect change if the words are rotated.

---

**Division:** Senior

**Category:** Chemistry

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Sandy Zaher**

Hamilton High East

The Effects of pH and Ionic Concentration on The Function of Pepsin Enzyme

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## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:** Computer Science

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Samantha Rose Sandfort**

Hamilton High East

Do Subliminal Messages Affect The Thought  
Process Of Individuals?

---

**Division:** Senior

**Category:** Energy and Transportation

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Katie Elizabeth O'Mara**

Villa Victoria Academy

Biofuel Production from the Decomposition of  
Cellulose

---

**Division:** Senior

**Category:** Engineering Materials and  
Bioengineering

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Kaitlin Elizabeth Kenney**

Villa Victoria Academy

The Mystery of the Geodesic Dome

---

**Division:** Senior

**Category:** Environmental Management

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Ramses Daaka**

Trenton Central High

Is it possible to clean the air after dirty bomb  
contamination?

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## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:** Medicine and Health

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Jacqueline Cunningham**

Something In The Air: Airborne Allergens

Trenton Catholic Academy

---

**Division:** Senior

**Category:** Plant Sciences

**Second Place**

**From:** Mercer Science and Engineering Club

---

**Elizabeth Claire Tadie**

Effects of Cryopreservation on Seeds of  
Phaseolus Limensis, Allium Cepa, and Brassica  
Oleracea

Villa Victoria Academy

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**Division:** Senior

**Category:** Animal Sciences

**First Place**

**From:** Mercer Science and Engineering Club

---

**Ilya Podkopaev**

To Breed, or Not to Breed?

West Windsor-Plainsboro High North

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**Division:** Senior

**Category:** Behavioral and Social Science

**First Place**

**From:** Mercer Science and Engineering Club

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**Samantha Ann Rapos**

Does a decrease in the ability to identify smells  
signify a loss of memory?

Hamilton High East

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## *2008 Mercer Science and Engineering Fair Results*

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**Division:** Senior

**Category:** Biochemistry

**First Place**

**From:** Mercer Science and Engineering Club

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**Danielle Victoria Reenstra**

Hamilton High East

The Phadebas Forensic Press Test: Do  
Temperature and pH Changes Affect the Results?

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**Division:** Senior

**Category:** Chemistry

**First Place**

**From:** Mercer Science and Engineering Club

---

**Veronica Kim**

West Windsor-Plainsboro High

Photo-induced Motions of Small Particles

---

**Division:** Senior

**Category:** Computer Science

**First Place**

**From:** Mercer Science and Engineering Club

---

**John Wu**

Princeton High

Ear Recognition - A New Biometrics Device

---

**Division:** Senior

**Category:** Energy and Transportation

**First Place**

**From:** Mercer Science and Engineering Club

---

**Christina Razzano**

Villa Victoria Academy

Making Methane

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## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:** Engineering Materials and  
Bioengineering

**First Place**

**From:** Mercer Science and Engineering Club

---

**Thomas Anthony Giordano**  
Hamilton High East

Should the Effectiveness of an Insulative  
Material Come Before Its Sustainability?

---

**Division:** Senior

**Category:** Environmental Management

**First Place**

**From:** Mercer Science and Engineering Club

---

**Colleen Van Driesen**  
Villa Victoria Academy

Do different locations affect the level of acid  
rain or is it global?

---

**Division:** Senior

**Category:** Medicine and Health

**First Place**

**From:** Mercer Science and Engineering Club

---

**Scott Anthes**  
Hamilton High East

Do Stents Really Help Reduce the Pressure  
Created by a Collapsed Artery?

---

**Division:** Senior

**Category:** Microbiology

**First Place**

**From:** Mercer Science and Engineering Club

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**Rachel L. Santitoro**  
Hamilton High East

Plasmodial Slime Molds: Biodiversity and  
Optimal Growing Conditions

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## *2008 Mercer Science and Engineering Fair Results*

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**Division:** Senior

**Category:** Physics and Astronomy

**First Place**

**From:** Mercer Science and Engineering Club

---

**Kevin Mantel**  
Hamilton High East

Does Temperature Affect the Photoelectric Effect?

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**Division:** Senior

**Category:** Plant Sciences

**First Place**

**From:** Mercer Science and Engineering Club

---

**Savannah Rose Jones**  
Villa Victoria Academy

Roses are Red, these Violets are Dead

---

**Division:** Senior

**Category:**

**2nd Runner Up**

**From:** Mercer Science and Engineering Club

---

**Kevin Mantel**  
Hamilton High East

Does Temperature Affect the Photoelectric Effect?

---

**Division:** Senior

**Category:**

**1st Runner-up**

**From:** Mercer Science and Engineering Club

---

**Christina Razzano**  
Villa Victoria Academy

Making Methane

---

## *2008 Mercer Science and Engineering Fair Results*

---

**Division:** Senior

**Category:**

**Grand Prize**

**From:** Mercer Science and Engineering Club

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**John Wu**

Ear Recognition - A New Biometrics Device

Princeton High

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