

**Middle School Awards for the Howard County Public School System  
2007 Mathematics, Science and Technology Fair**

**Best Overall Middle School Project (Tie)**

Ashley Earp	<i>Bacteria Growth in Make-Up</i>	Murray Hill
Ben Eve	<i>The Effect of Terrestrial Light Pollution on the Visibility of Astronomical Objects</i>	Hammond

**Middle School Trophy Winners**

**Animal Biology**  
Category Winner

Celia Rozanski	<i>Sensory Perception of Triops</i>	Wilde Lake
Runner-up Jared Seifter	<i>Evolutionary Changes in the Aperture and Umbilicus of the Extinct Gastropod Ecphora</i>	Burleigh Manor

**Behavioral & Social Sciences**

Category Winner

Shoshana Nachman	<i>The Stroop Effect –The Impact of Age on Visual Selective Attention</i>	Dunloggin
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Runner-up

Stephen Christian	<i>Effect of Audio and Visual Stimuli on Short Term Memory Retention</i>	Hammond
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**Microbiology**

Category Winner

Kaiwen Zhang	<i>Polymerase Chain Reaction</i>	Dunloggin
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Runner-up

Emily Singleton	<i>Bacteria Be Gone</i>	Elkridge Landing
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Runner-up

Victor Atta-Dakwa	<i>The Effect of Antacids on Pepsin's Ability</i>	Patapsco
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**Plant Biology**

Category Winner

Matthew Zuchero	<i>The Effect of Amount of Nitrogen in Soil on the Capsaicin Concentration in Jalapeno Peppers</i>	Lime Kiln
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Runner-up

Mackenzie Burnett	<i>The Allelopathic Effects of Cereal Rye Straw on Dandelion Seed</i>	Dunloggin
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## **Chemistry**

Category Winner

Alison Jirak     *The Effect of 3M Window Film on the Fading and Mass Loss of Fabric*     Lime Kiln

(tie)

Category Winner

Vivian Steyert     *The Effect of Temperature on Diffusion Rate*     Cradlerock

Runner-up

Kim Nguyen     *The Effect of Ice Cream Type on Melting Time*     Lime Kiln

(tie)

Runner-up

Shourjya Mookerjee     *Which Salt Is Environmentally and Economically Most Effect in Melting Ice*     Patuxent Valley

## **Earth and Space Sciences**

Category Winner

Brian Kim     *Aerosols' Effects on Sunlight Penetration*     Mount View

Runner-up

Hank Zwally     *Ice Keeps The Planet Cool*     Dunloggin

## **Engineering**

Category Winner

Alexander Lo     *The Effect of Magnetic Exposure on Magnetic Media*     Ellicott Mills

Runner-up: Technology

Emily Schultheis     *The Effect of Different Template Images on the Automated Identification of Ripe Tomatoes*     Glenwood

Runner-up: Computer Science.

Ryan Dorson     *The Effect of Programming Strategies on Solutions to the N-Queens Problem*     Lime Kiln

## **Environmental Sciences**

Category Winner

Jean-Luc Duvall     *The Effect of Decomposition on Commercial-Grade, Biodegradable Fabrics*     Patapsco

Runner-up

Danielle Mohab     *The Effects of Plants on the Quality of Stream Water*     Murray Hill

Claire McGrath

Katie Gaverth

Chloe Beatty

**Mathematics**

Category Winner

Brooke Wible

*What Mathematical Effect Does the  
Distribution of Colored Marbles in a Bag  
Have on the Probability of Collecting All Four  
Colored Marbles?*

Patuxent Valley

Runner-up

Luke Schurman

*The Correlation Between Height and Scoring  
Performances in Basketball*

Oakland Mills

**Physics**

Category Winner

Tim Higgins

*Aerodynamic Kites*

Folly Quarter

Runner-up

James Stackhouse

*The Effect of Temperature on the Behavior of  
Electrical Circuits*

Cradlerock

**Blue Ribbons of Excellence**

Kuo Grace

Burleigh Manor

Scott Swan

Burleigh Manor

Melanie Zheng

Burleigh Manor

Heejo Choi

Clarksville

Alyssa Kaiser

Clarksville

Jordan Levy

Clarksville

Derrick Altema

Cradlerock

Eva Bacmeister

Cradlerock

Caroline Chisolm

Cradlerock

Jonathan Witt

Cradlerock School

Justin Cosentino

Dunloggin

Kae David

Dunloggin

Jonathan Kowarski

Dunloggin

Michael Lazris

Dunloggin

Sarah Lord

Dunloggin

Nicole Rangos

Dunloggin

Lauren Dise

Elkridge Landing

Nicole Grabowski

Elkridge Landing

Uvin Ranawake

Elkridge Landing

Shelby Smith

Elkridge Landing

Paula Ladd

Ellicott Mills

Kendall Auth

Folly Quarter

Krista Boyd

Folly Quarter

Sydney Braithwaite

Folly Quarter

Arienne Greenberg

Folly Quarter

Ian Howard

Folly Quarter

Jocelyn Kojzar	Folly Quarter
Steven Morton	Folly Quarter
Angela Rusconi	Folly Quarter
Annalease Faustino	Glenwood
Emily Moore	Glenwood
Carolyn Oehrig	Glenwood
Chris Swetz	Glenwood
Mitchell Dennison	Hammond
Katherine Ziebarth	Harper's Choice
Erin Bowley	Lime Kiln
Erin Breitenother	Lime Kiln
Stephanie Ducharme	Lime Kiln
Erin Geoghan	Lime Kiln
Kaitlin LaGrasta	Lime Kiln
Erica Makar	Lime Kiln
Rachel Napoli	Lime Kiln
Puja Parmar	Lime Kiln
Luke Rhodes	Lime Kiln
Jimmy Callaway	Mayfield Woods
Matthew Trotta	Mayfield Woods
Rachel Follmer	Mount View
Brendan McMurtray	Mount View
Chris Ulmer	Mount View
Karl Kletetschka	Murray Hill
Chloe Outen	Murray Hill
Rhani Pflaum	Murray Hill
Zachary Hopkins	Oakland Mills
Zachary Hughes	Oakland Mills
Gabe Phillips	Oakland Mills
Katherine Taylor	Oakland Mills
John Wales	Oakland Mills
Allie O'Malley	Patapsco
Meghan Predenkoski	Patapsco
Shalini Ray	Patapsco
Lauren Reiser	Patapsco
Elisabeth Tawa	Patapsco
Emily Farb	Wilde Lake

## SPECIALTY AWARDS

### National Capital Area Chapter of the Society of Toxicology Certificate for Excellence in Environmental Science and Toxicology Research

Brendan McMurtray Mount View MS  
*Effect of Fertilizer on Submerged Aquatic Vegetation*

### American Chemical Society

Brian Katz Lime Kiln MS  
*The Effect of Carbon Dioxide on the Rate of Photosynthesis*

### Friends of Agricultural Research – Beltsville

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

Brian Katz Lime Kiln MS  
*The Effect of Carbon Dioxide on the Rate of Photosynthesis*

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

Brendan McMurtray Mount View MS  
*Effect of Fertilizer on Submerged Aquatic Vegetation*

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

Eva Bacmeister Cradlerock School  
*The Effect of Fertilizer Algae on Spores*

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

Angela Rusconi Folly Quarter MS  
*Musical Influences on Canine Comfort*

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

Jared Seifter Burleigh Manor  
*Evolutionary Changes in the Aperture and Umbilicus of the Extinct  
Gastropod Ecphora*

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

Olivia Ostrom Folly Quarter MS  
*Freshwater Protozoan*

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

Shourjya Mookerjee Patuxent Valley  
*Which Salt Is Environmentally and Economically Most Effective  
in Melting Ice*

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

Gabrielle Diener Wilde Lake MS  
*Does Tooth Paste Whiten Teeth as They Advertise*

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

Aimee Hecher

*Is It Really Sugar Free?*

Wilde Lake MS

**The Optical Society of America, National Capital Section Outstanding Achievement Award in Optics Junior Division**

Ben Eve

*The Effect of Terrestrial Light Pollution on the Visibility of Astronomical Objects*

Hammond MS

Katrina Carey

*The Effect of Location of Solar Panel on Amount of Energy Produced*

Glenwood MS

Nick Pelletiere

*Capturing Solar Energy*

Harper's Choice

Uvin Ranawake

*How Does Sugar Content Effect Refractive Index*

Elkridge Landing

Scott Diwulski

*The Effect of Ultraviolet Rays on Fishing Line*

Glenwood MS

Janani Gururam

*The Effect of Type of Window Materials on the Solar Heating of a Room*

Ellicott Mills MS

Amelia Baronowsky

*Edge Detection, Clarifying a Digital Image*

Folly Quarter MS

**Outstanding Achievement Awards in Optics Junior Division-Mentored Projects**

Emily Schultheis

*The Effect of Different Template Images on the Automated Identification of Ripe Tomatoes*

Glenwood MS

**The Howard County Conservancy Certificate in Recognition of Rachel Carson's 100th Birthday**

Chris Swetz

*Rivers Underground*

Glenwood MS

**Koshland Science Museum of the National Academy of Sciences**

**Creativity in Design**

Steven Morton

*Infra-Red Marshmallow Cooker*

Folly Quarter MS