

## **Category Awards**

### **Animal Science**

Senior First Place, Molly Tracy, The Birds are Alive with the Sound of Music

Junior First Place, Mary Williams, To "B" or Not to "B"

Junior Second Place, Tristan Ritchey, Does Diurnal Variation Affect Egg Production

Junior Honorable Mention, Natalie Krissoff, Does Temperature Affect Egg Laying Rate of Chickens?

### **Behavioral and Social Sciences**

Senior First Place, Amanda Dennis, Music 4the Heart

Senior Second Place, Brian Brown, Human Hearing Comparison by Age

Junior First Place, Rose Young, Handwriting Characteristics –Feminine or Masculine?

Junior Second Place, Ronald McGee, Jr., Right Paw or Left?

Junior Honorable Mention, Hayden Buckler, Is Your Memory Better in Color?

### **Biochemistry**

Senior First Place, Nathan Luke, DNA Separation

Senior Second Place, Ashley Dennis, Soda: Bad to the Bone?

Junior First Place, Chelsea Kibler, Battle of the Bars

Junior Second Place, Katie Pappas, Pigments are Everywhere!

### **Cellular and Molecular Biology**

Senior First Place, Aparna Sajja, Lactadherin Deficiency in Atherosclerotic Apoptosis

Junior Honorable Mention, Caitlin Dugan, Family Fingerprints

### **Chemistry**

Senior First Place, Rachel Haas, Rusting Iron

Senior Second Place, Meghan Gleason, Can Limestone Survive Against Acid Rain?

Senior Second Place, Malarie O'Brien, Who's More Excited

Senior Honorable Mention, Sangeeta Sarkar, Effect of Temperature on Enzyme Reaction

Junior First Place, Matthew Johnson, Oil Viscosity Does It Matter?

Junior Second Place, Katherine Dowdle, House on Fire

### **Computer Science**

Junior First Place, Jackie Smedley, Sound Squeeze

Junior Honorable Mention, Andrew Herbig, A Good Excuse to Use the Computer

### **Earth and Planetary Science**

Senior Honorable Mention, Sarah Harvey, Solar Storm Affect on Magnetic Field

Junior Honorable Mention, Megan Cenate, Sunlight + Wind = Evaporation

### **Engineering: Materials and Bioengineering**

Senior First Place, Nazat Dowla, Cloth, Drop, and Roll

Senior Second Place, Dillon Norris, Which Beginner's Lacrosse Shaft is Strongest?

Junior First Place, Emily Clark, Soundproofing

Junior Second Place, Todd Roberts, May the Best Beam Win

Junior Honorable Mention, Kelly McGowan, I Crushed It! The Great Cement Event

### **Engineering: Electrical and Mechanical**

Senior First Place, Megan Triplett, Asteroid Mining: Payload Launcher

Senior Second Place, Daniel Bolton, Sound to Electricity Generator II

Senior Honorable Mention, Alex Klapka, Tennis Enhancements: Hype or Substance Part 2

Senior Honorable Mention, Noah Wichrowski, Fatal Attraction

Junior First Place, Harrison Hope, Solar Enhancer

Junior Second Place, Logan Dudley, Blade Angle Matters

Junior Second Place, Nicholas Tobler, Vampire Drain

Junior Honorable Mention, Brady Slattery, Lemon Battery

## **Energy and Transportation**

Senior First Place, Jeremy Dehn, What are Winglets?  
Senior Second Place, Jason Bray, Aerodynamic Affects of Design Changes Vehicles  
Senior Second Place, Alexander Kracinovich, Drag caused by Wires on Biplanes  
Junior First Place, Michael Lopez, Wave Action  
Junior Second Place, Thomas Beary, Traffic Power!  
Junior Second Place, Ethan Rudman, Testing Robots: Wheeled vs. Tracked  
Junior Honorable Mention, Sohum Shah, Wind the Energy of the Future  
Junior Honorable Mention, Ken Gill, Static Load Hydroplaning

## **Environmental Science**

Senior First Place, Shefali Shah, An Inconvenient Algal Truth  
Senior Second Place, Jordan Rice, Does Development Affect Global Temperature  
Senior Honorable Mention, Christian Burton, Levels of Pollution in the Chesapeake Bay  
Junior First Place, Samantha Long, Polluted Waters  
Junior Second Place, Madeline Mattingly, The Safest Water  
Junior Honorable Mention, Benjamin Anderson, Preventing the Squish

## **Environmental Management**

Senior Honorable Mention, Alison Treglia, Comparing Run-Off of Different Fertilizers  
Junior First Place, Katie Jahn, Water, Water, Everywhere...Any to Drink?  
Junior Second Place, Madeline Roberts, Be Clean or Be Green  
Junior Second Place, Sara Moore, Walking on Broken Glass?  
Junior Honorable Mention, Hailey Dodges, Build a Better Levee 2  
Junior Honorable Mention, Madisson Wood, What's the Dirt?

## **Mathematical Sciences**

Junior First Place, Nicholas Wilson, What Are The Odds?  
Junior Second Place, Patrick Offenbacher, Apple Medley: How Random is an iPod?

## **Medicine and Health Science**

Senior First Place, Kelles Gordge, Take a Deep Breath!  
Senior Second Place, Rebecca Birkholz, Hair Today Gone Tomorrow!  
Junior First Place, Quinn Alsheimer, What's Your Eye-Q!  
Junior Second Place, Cassie Oliver, Got Oxygen?  
Junior Honorable Mention, Aleksander Glut, What Types of Liquids Cause Cavities in Teeth?

## **Microbiology**

Senior First Place, William Lawson, Don't Sweat It

## **Physics and Astronomy**

Senior First Place, Mariko Sakemi, Geometric Dome Frequency vs. Strength  
Senior Second Place, Kyle Beggs, Measure the Speed of Light through Media  
Senior Second Place, Eumi Pok, Differences in Pitches  
Junior First Place, Rupali Shah, String 'n Swing  
Junior Second Place, Nicholas Ragland, Silent Noise  
Junior Honorable Mention, Jake Dodges, Vexing Velocity Vectors  
Junior Honorable Mention, Connor Alsheimer, Breaking News About Holograms

## **Plant Science**

Senior First Place, Tyler Gatton, Hydroponics Irrigation Sources  
Senior Second Place, Austin Vale, Growing Grass with Different Water Temperatures  
Senior Honorable Mention, Lydia Browne, How Acids and Bases Affect Plant Growth  
Junior First Place, William Frech, Biofuel for Your Lawn  
Junior Second Place, Isabelle Lopez, Earth's Own Fertilizer  
Junior Honorable Mention, Mina Fahmi, Plants Inner Polarity

## **Team Awards**

Senior First Place, Alexa Cohen and Katie Chan, Tricolson Exposed  
Senior Second Place, Michael Klier and Carson Myers, Reinventing the Wheel  
Senior Honorable Mention, Danielle Wilkin and Claire Weber, Dream Scheme

## **Sparkle Awards**

Senior Winner, Molly Tracy, The Birds Are Alive with the Sound of Music  
Senior Winner, Taylor Renae Nelson, High-Spirited Hovercrafts  
Senior Winner, Danielle Wilkin, Dream Scheme  
Senior Winner, Claire Weber, Dream Scheme  
Senior Winner, Ashley Dennis, Soda: Bad to the Bone?  
Senior Winner, Meghan Gleason, Can Limestone Survive Against Acid Rain?  
Senior Winner, Kelles Gordge, Take a Deep Breath!  
Senior Winner, Tyler Gatton, Hydroponics Irrigation Sources  
Senior Winner, Jesse Arnold, Unidentified Fourth Dimensional Object  
Senior Winner, Mark Ragland, Simulating Ocean Water for Video Laser Communication  
Junior Winner, Katherine Dowdle, House on Fire  
Junior Winner, Henry Hewson, IV, Nature vs. Skyscraper  
Junior Winner, William Frech, Biofuel for your Lawn  
Junior Winner, Mary Kate Morgan, It's Shocking  
Junior Winner, Jake Dodges, Vexing Velocity Vectors  
Junior Winner, Ken Gill, Static Load Hydroplaning  
Junior Winner, Madeline Roberts, Be Clean or Be Green  
Junior Winner, Natalie Krissoff, Does Temperature Affect Egg Laying Rate of Chickens?  
Junior Winner, Benjamin Anderson, Preventing the Squish  
Junior Winner, Brady Slatery, Lemon Battery

## **Enrichment Awards**

### **Senior Division Enrichment Awards**

Best Use of Inexpensive Materials, Mariko Sakemi, Geometric Dome Frequency vs. Strength  
Best Presentation, Jesse Arnold, Unidentified Fourth Dimensional Object  
Best Correlation of Data, Shefali Shah, An Inconvenient Truth  
Mike Moses Award for Best Teaching Aide, Megan Triplett, Asteroid Mining: Payload Launcher

### **Junior Division Enrichment Awards**

Best Use of Inexpensive Materials, Logan Dudley, Blade Angle Matters  
Best Presentation, Jake Dodges, Vexing Velocity Vectors  
Best Correlation of Data, Nicholas Wilson, What Are the Odds?  
Mike Moses Award for Best Teaching Aide, Quinn Alsheimer, What's Your Eye-Q!

## **Special Awards**

### **Education Systems Federal Credit Union**

Senior First Place, Kelles Gordge, Take a Deep Breath!  
Senior Second Place, Amanda Dennis, Music 4 the Heart  
Junior First Place, Katie Jahn, Water, Water, Everywhere...Any to Drink?

## **INCOSE**

Senior First Place, Kelles Gordge, Take a Deep Breath!  
Senior Second Place, Mark Ragland, Simulating Ocean Water for Video Laser Comm.  
Senior Honorable Mention, Daniel Bolton, Sound to Electricity Generator II  
Junior First Place, Sarah Carty, Give Me A Hand on Mars  
Junior First Place, Sara Moore, Walking on Broken Glass?  
Junior Second Place, Noah Varner, Get Rid of Your Gas  
Junior Honorable Mention, Harrison Hope, Solar Enhancer

### **League of Women Voters**

Senior Award, Tyler Gatton, Hydroponics Irrigation Sources  
Junior Winner, Madeline Roberts, Be Clean or Be Green  
Junior Winner, Katie Jahn, Water, Water, Everywhere...Any to Drink?  
Junior Winner, Stephen Henkel, Are You a Water Waster?  
Junior Winner, Madeline Mattingly, The Safest Water  
Junior Winner, Samantha Long, Polluted Waters

### **Lockheed Martin, Da Vinci Awards**

Da Vinci Award 1, Caitlin Dugan, Family Fingerprints  
Da Vinci Award 2, Tyler Gatton, Hydroponics Irrigation Sources  
Da Vinci Award 3, Kelles Gordge, Take A Deep Breath!

### **Naval Science Awards**

Senior Award, Kelles Gordge, Take a Deep Breath!  
Senior Award, Amanda Dennis, Music 4 the Heart  
Junior Award, Katie Jahn, Water, Water, Everywhere...Any to Drink?

### **The Patuxent Partnership**

Senior Aeronautics/Aerospace Project Award, Megan Triplett, Asteroid Mining: Payload Launcher  
Senior Electrical/Electronics Project Award, Emma Holmes, Reclaiming Heat Pump Energy  
Senior Environmental/Biological Project Award, Shefali Shah, An Inconvenient Algal Truth  
Senior Physical/Life-Science Project Award, Aparna Sajja, Lactadherin Deficiency in Atherosclerotic Apoptosis  
Junior Aeronautics/Aerospace Project Award, Robert Vandegrift, Nose Cone Aerodynamics  
Junior Electrical/Electronics Project Award, Alex Lusk, The Car That Could...or Couldn't  
Junior Environmental/Biological Project Award, Delaney Hancock, Creepy Crawly Composters  
Junior Physical/Life-Science Project Award, Quinn Alsheimer, What's Your Eye-Q!

### **The Potomac River Association**

Senior Division Winner, Shefali Shah, An Inconvenient Algal Truth  
Junior Division Winner, Samantha Long, Polluted Waters

### **The Robert and Barbara Herbig Awards**

Senior Division Winner, Molly Tracy, The Birds are Alive with the Sound of Music  
Junior Division Winner, Mary Williams, To "B" or Not to "B"

### **SMECO**

Senior Division Winner, Emma Holmes, Reclaiming Heat Pump Energy  
Senior Division Winner, Zachary Lusk, Insulated or Not?

### **Southern Maryland Association of Realtors**

Scholarship Award, Mark Ragland, Simulating Ocean Water for Video Laser Communication

### **Southern Maryland Audubon Society**

Senior First Place, Christian Burton, Levels of Pollution in the Chesapeake Bay  
Junior First Place, Samantha Long, Polluted Waters

### **Southern Maryland Resource Conservation and Development Board**

Senior First Place, Karina Marks, Ocean Acidification  
Senior Second Place, Alison Treglia, Comparing Run Off of Different Fertilizers  
Junior First Place, Isabelle Lopez, Earth's Own Fertilizer  
Junior Second Place, Cullen Taylor, Rock and Roll Takes its Toll

**St. Mary's College of Maryland**

Scholarship Award, Shefali Shah, An Inconvenient Algal Truth

**St. Mary's Hospital**

Senior Award Cellular and Molecular Biology, Aparna Sajja, Lactadherin Deficiency in Atherosclerotic Apoptosis

Senior Award Chemistry, Rachel Haas, Rusting Iron

Senior Award Biochemistry, Nathan Luke, DNA Separation

Senior Award Microbiology, William Lawson, Don't Sweat It

Senior Award Medicine and Health Sciences, Kelles Gordge, Take a Deep Breath!

Junior Award Chemistry, Matthew Johnsons, Oil Viscosity Does It Matter?

Junior Award Biochemistry, Chelsea Kibler, Battle of the Bars

Junior Award Medicine and Health Sciences, Quinn Alsheimer, What's Your Eye-Q!

**St. Mary's Soil Conservation District Award**

Senior First Place, Shefali Shah, An Inconvenient Algal Truth

Junior First Place, Hailey Dodges, Build a Better Levee 2

**Town Creek Garden Club**

Senior Division, Lydia Browne, How Acids and Bases Affect Plant Growth

Junior Division, Isabelle Lopez, Earth's Own Fertilizer

**Unitarian Universalist Fellowship of Southern Maryland, Joseph Priestley Award**

Senior Division, Emali Kitchen and Jonathan Munshaw, Esters and the Human Nose

Junior Division, Matthew Johnson, Oil Viscosity Does it Matter?

**Water and Waste Operators Association**

Senior Division, Alexa Cohen and Katie Chan, Triclosan Exposed

Junior Division, Abby Brugman, Pollution Effects

**Wyle Laboratories**

Senior First Place, Joseph Vandegrift, Leading and Trailing Devices on a Symmetrical Airfoil

Senior Second Place, Taylor Nelson, High-Spirited Hovercrafts

Junior First Place, Jackie Smedley, Sound Squeeze

Junior Second Place, Patrizia Pelington, Teething Turbines

**Senior Grand Prize**

Kelles Gordge – GMHS: Take a Deep Breath!

Amanda Dennis – GMHS: Music 4 the Heart

**Junior Grand Prize**

Katie Jahn – SRMS: Water, Water, Everywhere...Any to Drink?

**The following St. Mary's County Science and Engineering Fair participants will be attending the Regional Prince George's Area Science and Engineering Fair in March 2010.**

**Senior Division**

Danielle Wilkin and Claire Weber - Dream Scheme  
Nathan Luke - DNA Separation  
Meghan Gleason - Can Limestone Survive Against Acid Rain?  
Sangeeta Sarkar - Effect of Temperature on Enzyme Reaction  
Malarie O'Brien - Who's More Excited  
Noah Wichrowski - Fatal Attraction  
Daniel Bolton - Sound to Electricity Generator II  
Megan Triplett - Asteroid Mining: Payload Launcher  
Michael Klier and Carson Myers - Water and Electricity: Reinventing the Wheel  
Alex Klapka - Tennis Enhancements: Hype or Substance Part 2  
Mark Ragland - Simulating Ocean Water for Video Laser Comm.  
Dillon Norris - Which Beginners Lacrosse Shaft is Strongest?  
Alexander Kracinovich - Drag Caused by Wires on Biplanes  
Jeremy Dehn - What Are Winglets?  
Alison Treglia - Comparing Run-Off of Different Fertilizers  
Christian Burton - Levels of Pollution in the Chesapeake Bay  
Jordan Rice - Does Development Affect Global Temperature?  
Shefali Shah - An Inconvenient Algal Truth  
Kelles Gordge - Take a Deep Breath!  
William Lawson - Don't Sweat It  
Eumi Pok - Differences in Pitches  
Mariko Sakemi - Geometric Dome Frequency vs. Strength  
Tyler Gatton - Hydroponics Irrigation Sources  
Austin Vale - Growing Grass with Different Water Temperatures  
Alexa Cohen and Katie Chan - Triclosan Exposed

**Junior Division**

Mary Williams - To "B" or not to "B"  
Tristan Ritchey - Does Diurnal Variation Effect Egg Production  
Rose Young - Handwriting Characteristics - Feminine or Masculine?  
Chelsea Kibler - Battle of the Bars  
Matthew Johnson - Oil Viscosity Does it Matter?  
Jackie Smedley - Sound Squeeze  
Andrew Herbig - A Good Excuse to Use the Computer  
Nicholas Tobler - Vampire Drain  
Logan Dudley - Blade Angle Matters  
Harrison Hope - Solar Enhancer  
Emily Clark - Soundproofing  
Kelly McGowan - I Crushed It! The Great Cement Event  
Thomas Beary - Traffic Power!  
Michael Lopez - Wave Action  
Ethan Rudman - Testing Robots: Wheeled vs. Tracked  
Katie Jahn - Water, Water, Everywhere... Any to Drink?  
Hailey Dodges - Build a Better Levee 2  
Sara Moore - Walking on Broken Glass?  
Benjamin Anderson - Preventing the Squish  
Madeline Mattingly - The Safest Water  
Samantha Long - Polluted Waters  
Patrick Offenbacher - Apple Medley: How Random is an iPod?  
Nicholas Wilson - What Are The Odds?  
Quinn Alsheimer - What's Your Eye-Q!

Cassie Oliver - Got Oxygen?  
Nicholas Ragland - Silent Noise  
Rupali Shah - String 'N Swing  
Jake Dodges - Vexing Velocity Vectors  
Connor Alsheimer - Breaking News About Holograms  
Isabelle Lopez - Earth's Own Fertilizer  
William Frech - Biofuel for Your Lawn  
Mina Fahmi - Plants Inner Polarity