

Third Place Winners Fairfax County Regional Science and Engineering Fair

March 29, 2009

Animal Sciences

Phylogeography of the Giant American River Prawn	Alexander M. Kim	Thomas Jefferson H S for Science and Technology
What is the Outcome of Competition Between Daphnia	Sara A. El-Ashaal	Stuart High School

Behavioral and Social Sciences

The Effect of Music on Spatial Relationships	Antonia I. Stabile	Oakton High School
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Biochemistry

What's in Your Burger?	Rebecca E. Goldwater	Hayfield Secondary
Tularemia Biomarker Discovery Using LC-MS/MS	Arjan C. Kool	Madison High School
The Effect of Sports Drinks on Tooth Color	Aaron Fausser Fernando Gutierrez	Lake Braddock Secondary School

Cellular and Molecular Biology

Effect of OTC Medications on Daphnia	Ryan E. Fishel, Chris K. Yun	Madison High School
Effect of Oya Mineral in Bags on Produce	Danna Chavez Calvi, Paola Jimenez Vergara	Falls Church High School

Chemistry

Contrasting Carbons	Kelsey P. Rook	Langley High School
Fastest Way to Cool a Carbonated Beverage	Manmohan Singh	Fairfax High School
Which Antacid Works Best?	Brent T. Sherwood	Westfield High School
Effect of Color on the Photodegradation of Plastic	Jenna Bugge	Langley High School
Effect of Al Concentration of Daphnia Magna	Megan C. Ohlfest	Lee High School
Effect of CuSO ₄ on Voltage of Electrochemical Cell	Ali Fattahi	South Lakes High School
Fire Retardant Methods and Christmas Tree Ignition	John J. Edgar	West Potomac High School
The Formation of Plasma by Microwaves	Margaret T. Berrigan	West Potomac High School
If You Can't Neutralize the Acid, Stay Out!	Melanie N. Brodner, Briana Crabb	Lake Braddock Secondary School

Computer Science

Galilean Telescope with Program for Lens Selection	Jonathan D. Lykins	Robinson Secondary
Digital Forensics	Halleemah N. Qureshi	McLean High School

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Earth and Planetary Science

Making and Using Sextants as Related to Accuracy	Isabel J. Hardee	West Potomac High School
Effect of Atmospheric Activity on Micrometeorites	Alexandra Summers	Centreville High School

Engineering: Materials and Bioengineering

The Effect of Liquid Environments on Asphalt	David H. Springer	Oakton High School
The Effect of Heat on a Diode	Johann Vargas	Madison High School
The Effect of Yarn Pattern on Carrying Capacity	Blaise Spratt	Madison High School
Effect of Material on Soundboard Resonance	Evan A. Rajadhyaksha	West Potomac High School
How Mass and Surface Affect Putty Adhesiveness	Ethan R. Haviland	Oakton High School
Measuring Knee Stress with a Mechanical Model	Lindsay E. Blassic	Oakton High School
Stack Materials in a Thermoacoustic Refrigerator	Jonathan R Reeg	Oakton High School
Can You Hear Us Now?	Meghan F. Lawler, Meghan Maraia	Woodson High School
The Effect of the Graft of the ACL on Stability	Lara Dianna Kuna, Julia Rosebluth	South County Secondary School
Sandbag Filler Alters Effectiveness v Flood Waters	Ryan Mavity, Sergio Sanchez, Brian Sapolsky	Woodson High School
Can You Hear Me Now?	Brendan Hogan, Garrett Shu	Woodson High School

Engineering: Electrical and Mechanical

Effect of Diameter on Rocket Altitude	Mark R. Schierling	Paul VI High School
Eco Friendly or Eco Deadly?	David A. Fowler	Madison High School
AUCK: Audio Capturing Kable	Jason Lin	McLean High School
Wattage Weighted Winds	Arya Esraghi, Dhananjay Tripathi	Westfield High School
Effect of Magnetic Fields on Solution Resistance	Thomas M. Dziura, Britt H. Jeter	Robinson Secondary
The Effect of Blade Pitch Generated Energy and RPM	Mark R. Bergenholtz, Ryan Walter	Marshall High School
Alternative Internal Designs of Gravity Dams	Lani Furbank, Margaret Hardy, Erica Inmaculato	Woodson High School
Effect of Insulation on Temperature	Emily Lichstrahl, Michael Lichstrahl	South County Secondary School

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Energy and Transportation

What Type of Bulb is Most Energy Efficient?	Amanda L. Fox	Oakton High School
Effect of Temperature on Gasoline Density	Linh P. Duong	Lee High School
Electromagnetic Engine	Scott V. Feit	McLean High School
The Effect of Combustible Liquids on Efficiency	Jennifer L. Grottle	Woodson High School
Effect of Focused Light on a Solar Panel	Christopher B. Collier, Erika J. VanArsdel	Robinson Secondary
Improving Wind Turbine Efficiency	Lana T. Hoang, Priscilla Lin	Westfield High School
Energy Production from Household Waste	Suji Cha, Michael Chon, Stephanie Hyon	Centreville High School
Effect of Skin Friction on Flight of Golf Balls	Matthew P. Clark, Megan P. Clark	Hayfield Secondary
Effect of Blade Design on Hawt Turbine Efficiency	Aimme Chen, Zher-Hui Tan	Westfield High School

Environmental Analysis

The Effect of Type of Cleaner on Soil Health	Daniel A. Macdonald	Madison High School
Effect of Phosphate on DO Rate of River Water	Christina I. Bolton	Mount Vernon High School
Global Warming: A Simple Misconception	Zachary B. Charles Brett Pennetti,	McLean High School
The Effect of Wind Turbines on Natural Wind	Subheksha Rayamajhi, Zafar Y. Shaw	Fairfax High School
Effect of Incineration on Plastic Waste	Nicholas Cole, Matt Cruz, Juliana Cuomo	Centreville High School
The Effect of Filtration on Bacteria and Phosphate	Rachel K. Fulmer, Rachel L. Hoffman	Fairfax High School
Analysis of US Rivers vs Developing Countries	Anuj Gupta, Diksha Gupta	Chantilly High School
Homemade Water Cleaner	Jasmine Adams, Panisa Jiumdumneankij, Karen Yi	Lee High School

Environmental Management

The Effect of Waveheight on a Water Column	Mary C. Pepin	Fairfax High School
The Effect Lenses Have on Solar Oven Efficiency	Taylor T. Daley	West Potomac High School
Effect of Plant Species on Phyto-Remedial Ability	Kirin Gupta	Oakton High School
The Effect of Albedo on Heat Islands	Victoria L. Skaggs	Mount Vernon High School
The Effect of Phosphate on Growth of Mushrooms	Katja B. Broecker	Mount Vernon High School
An Assessment of Potomac River Water Toxicity	Alice M. Chae, Lauren C. Corbett	Thomas Jefferson H S for Science and Technology

Mathematical Sciences

The Effect of Quality of Dice on their Randomness	Michael S. Monaco	Hayfield Secondary
The Effect fo Different Card Counting Techniques	Navid R. Alavi, Don D. Choi	Marshall High School

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Medicine and Health

Genetic Cure for Muscular Dystrophy	Aksheetha Sridhar	Westfield High School
Life in Plastic - Not So Fantastic	Caroline S. Davis	Hayfield Secondary
The Effect of HCl on the Dissolution of Pain Pills	Elisabeth S. Bloxam, Brittany L. Simmons	Westfield High School

Microbiology

Natural vs Synthetic Antibiotics on E. coli Growth	Maria Lee	Centreville High School
Bacterial Resistance to Various Antibiotics	Elshadai Zenaye	Lake Braddock Secondary School
How Safe Are Your Drugs?	Riley C. Ennis	Thomas Jefferson H S for Science and Technology
Differing Concentrations of Ethanol on E. coli	Nikita Dodbele	Hayfield Secondary

Physics and Astronomy

Correlation of Coronal Mass Ejection/Sunspot Cycle	Nithin A. Donnipad	Chantilly High School
Maximizing Solar Oven Efficiency	Emma E. Weil	Oakton High School
The Effect of Types of Light on the Color of Gems	Robert W. Butler	Chantilly High School
The Rubens Tube	Dharanish V. Gollamudi	Westfield High School
The Effect of Shape on Parachute Performance	Dane Huling	Woodson High School
SRR Resonance Quality and Microwave Metamaterials	Kyle S. Markwalter	Thomas Jefferson H S for Science and Technology
The Effect of Packing Materials on Glass Breakage	Arenn M. Martin, Sarah Moniz, Victoria Tran	Fairfax High School
Frozen Flames	Nada Abu-Ulbah, Liza A. Kossobokova	Fairfax High School
Go For The Gold	Katherine Bannon, Victoria Bannon	Centreville High School

Plant Sciences

Phytoremediation Nature's Way to Remove Pollutants	Matthew S. Dronfield	Langley High School
Magnetite Used as Iron Supplement to Fortify Crops	Morgan G. Bayer	Oakton High School
Effect of Magnetized Water on Plant Growth	Devon Mack	Lee High School
Effect of Neem Extract on the Shelf-Life of Fruits	Ashwin Saidha	Lake Braddock Secondary School
The Effect of Fertilizers on Eutrophication	Rafael Enriquez-Hesles	McLean High School
Effect of Pesticide on Flowers	Kristina N. Clingaman	Falls Church High School
The Effect of Radiation on Radish Seeds	Chelsea G. Bender	West Potomac High School
Effect of Sod Plants on Runoff	Alexandra E. Collins, Antonio J. Rodriguez	South County Secondary School
Effect of Apple Specie on Malic Acid Amount	Anna Bruce, Shannyn Esmond	Centreville High School