

First Place Winners Fairfax County Regional Science and Engineering Fair

March 30, 2008

Animal Sciences

Geographical Location Effects on Tyto alba Pellets	Zoe C. Tippel	Westfield High School
Decapod Biocontrol of An Aquatic Trematode Vector	Alexander M. Kim	Thomas Jefferson H S for Science and Technology
The Effect of Sound Intensity on Planaria Learning	Juyeon Park, Koeun (Janet) Shin	Thomas Jefferson H S for Science and Technology
The Effect of Oxygen on Filtration Rate of Oysters	Paul S. Lee, Chase T. Uyeda, Patrick Colin Weaver	Robinson Secondary

Behavioral and Social Sciences

Backboard/Hood Color of Traffic Lights	Varun Takanti	Fairfax High School
The Relationship Between Nail Biting and OCD	Alexander L. Peterkin	Oakton High School
Formulae of Formulation	Anthony Mehalic	Westfield High School
Seatbelt Suicide	Komal Dhir, Tugce Karageyer	Centreville High School
Breaking the Barrier to Girl's Running Time	Kelly Fox, Mira M. Mehta	Oakton High School

Biochemistry

Measuring Cholinesterase Activity	Russell P. Glorioso	Thomas Jefferson H S for Science and Technology
Effects of Different Substances on Kidney Stones	Rachel E. Derrick, Lyndsey M. Dowell, Jessica L. Zelenack	Fairfax High School
Effect of Salinity on the Growth of Algae	Eric Adamshick, Louis Sciortini	Centreville High School
The Effect of Glucose on Voltage Produced by Yeast	Urslan J. Ahmad, Timmy Nguyen	South County Secondary School

Cellular and Molecular Biology

Oxysterol Binding Proteins in Lipid Transport	Rebecca E. Chung	Thomas Jefferson H S for Science and Technology
Effects of Chromium Picolinate on Drosophila	Sara J. Photiadis	Stuart High School

Chemistry

What's in a Chopstick?	Krizia Ivana Udquim	Lake Braddock Secondary School
5-Hydroxy-1,4-Naphthoquinone: A Natural Acid/Base	Jordan Beckvonpeccoz	Centreville High School
Oh, The Ties That Bind!	Francesca E Lee	Fairfax High School
Effect of Temperature on Life Span of Antibubble	Stefanie L. Bannon	Mount Vernon High School
Radon Capture via Capillarity of Carbon Nanotubes	Anne B. Rohlfig	Thomas Jefferson H S for Science and Technology
How Fire Retardant is Your House?	Aubrey M. May, Gregory S. Trieber	Fairfax High School
On the Optimization & Refinement of Zeolite Na-A	Rohit Dasgupta, Christine N. Hiemstra	Thomas Jefferson H S for Science and Technology
Got UV? Get Sunscreen!	Dana Hayes, Mojan Nourbakhsh	Marshall High School
The Effect of Hydrogen Peroxide on Human Hair	Carolyn Huynh, Nealofar Panjshiri, Tram Phung	West Springfield High School

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Computer Science

Dynamic Speech Recognition Via News Monitoring	Jeff Z. Chen	Thomas Jefferson H S for Science and Technology
Analysis of Receptive Fields in a Neural Network	Madhav M. Nandipati	Thomas Jefferson H S for Science and Technology
Creating an Effective School Schedule	Kevin Andrews, Greg Hyde	Hayfield Secondary

Engineering: Materials and Bioengineering

Peanut Brittle: Battle of Sugar and Baking Soda	David Harsh	Chantilly High School
Economic Efficiency of Tennis Balls by Brand	Rahul Chopra	West Potomac High School
Development of ZrN+ & ZrN+Mo High Temp Cermets	Gillian H. Seok	Langley High School
Enhancement of CNT Gas Sensors Using Polymers	Nabeem I. Hashem	Thomas Jefferson H S for Science and Technology
Nanoscale Electronic Sensors for Explosives	Kedar Mulpuri	Lake Braddock Secondary School
Different Insulation Materials on Heat Transfer	Joanna Holman, Jonathan Pilcher, Meredith Pilcher	Hayfield Secondary
Flirting with Invisibility	Lauren Z. Abram, Eleanor L. Jordan	Fairfax High School

Engineering: Electrical and Mechanical

The Refraction of Lasers in Different Mediums	Katherine E Walker-Bawa	McLean High School
An Automobile Collision Avoidance System	Dennis Li	Langley High School
Factors that Affect the Range of a Siege Engine	Elizabeth A. O'Brien	Oakton High School
Motion Capture for Mixed Reality Applications	William B. McGrath	Thomas Jefferson H S for Science and Technology
Modeling and Manufacturing Metamaterials	Thomas J. Williams	Thomas Jefferson H S for Science and Technology
Analysis of Compressed Gas For Energy Storage	Ryan Brewster	Thomas Jefferson H S for Science and Technology
Can We Improve the Versatility of Our Hovercraft?	John C. Carter, Andrew P. Jordan	Fairfax High School
Seeing the Light: Combating Scintillation	James D. Carter, Janet L. Josten	Lake Braddock Secondary School
Testing a Trebuchet's Fulcrum and Counterbalance	Atif M. Javed, Alex S. Kuck	Fairfax High School

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Energy and Transportation

Enzymatic Conversion of Cellulose Biomass to Sugar	Abhinav R. Mohan	Chantilly High School
Electr-Yeast-ity	Arfa N. Aijazi	South Lakes High School
Effect of Tidal Generator Design On Power Output	Mike S. Finneran	Chantilly High School
ALF Validation of Asphalt Binder Fatigue Parameter	Dawei Qi	Thomas Jefferson H S for Science and Technology
Energy Production...Now Available In Color!	Sara W. Almousa, Noha A. Sherif	Islamic Saudi Academy

Environmental Analysis

Arsenic in Microstegium Vimineum From Two Rivers	Varun Bansal	Thomas Jefferson H S for Science and Technology
Optimization: Marine Sediment Microbial Solar Cell	Phil T. Grisdela, Joy E. Lee, Sumit Malik	Thomas Jefferson H S for Science and Technology
Effect of OTC Medications on Survival of Daphnia	Anuj Gupta, Diksha Gupta	Chantilly High School

Environmental Management

A Substrate's Effect on Filtration by Mussels	Pasha Mostaghim	Langley High School
The Chesapeake Bay Watershed Reality	Riley Ennis	Langley High School
Ability of Soil Types to Protect Seeds from Fire	Nathan Collins	Westfield High School
Microbial Bioconversion of Varying Concentrations	Samantha Dodbele	Hayfield Secondary
Grain Size of Sand on the Filtration of Nitrates	Nichole E. Chandler, David C. Junta	South County Secondary School

Mathematical Sciences

Implementation of the Schwarz-Christoffel Mapping	Evan B. Warner	Thomas Jefferson H S for Science and Technology
Cayley Graphs Formed by Conjugate Generating Sets	Jacob N. Steinhardt	Thomas Jefferson H S for Science and Technology
Chaos: An Analysis of Market Nonlinearity	Dhruv Kedar, Shawn Mittal	Chantilly High School

Medicine and Health

The Effect of Alcohol on Heart Rate	Sydney B. Sampson	Madison High School
The Development of Mitochondrial Gene Therapy	Anirudh Saraswathula	Thomas Jefferson H S for Science and Technology
B. Burgdorferi Exposure in Fairfax/Montgomery Dogs	Shahleen Z. Ahmed	Chantilly High School
AMD3100: a Potential Therapeutic for WHIM Syndrome	Francis Deng	Thomas Jefferson H S for Science and Technology
Survivin: Anti-Apoptotic Prognostic Tool in ESFT	Sappho Z. Gilbert	Thomas Jefferson H S for Science and Technology
The Effect of Turmeric on Heart Rate Daphnia	Andrew A. Almonte, Hamza A. Rahimi	South County Secondary School
Without a Trace: The Effect of Age on Fingerprints	Namrata Garg, Lauren C. Mims, Jacquelyn Thich	Chantilly High School
Astaxanthin and High Fat Diet on Weight Loss	Miriam Hashemi, Agne Mohan	Hayfield Secondary

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Physics and Astronomy

Effect of Angular Arm Position on Rotational Speed	Elizabeth Tandler	Chantilly High School
Effect of the Types of Dye on Strength of Hair	Kirstie L Fleger	South Lakes High School
Effect of Bubble Size on Tsunami Size	Wesley J. Rabusseau	Mount Vernon High School
Effect of Length on Forces on a Rotating Airfoil	Robert W. Meyer	Robinson Secondary
A Study of Splashes	Peyman Pejman	Robinson Secondary
Radon Pump Efficacy	Andre Gerner	Marshall High School
Raman Study of Carbon Nanotube Interactions	Bo Fan	Thomas Jefferson H S for Science and Technology
Determining Age of Enceladus	Arielle B. Kahn	Thomas Jefferson H S for Science and Technology
The Effect of Different Frequencies on Vibration	Armin Aflaki, Ryan P. Klein	Langley High School
Evolution of Airfoil Based on Aerodynamics	Syed M. Hassan, Arian Khorshid, Arturas Petkevicius	Marshall High School
Dyes & the Electrical Output of Photovoltaic Cells	Fatmata S. Kabia, Mariama S. Kabia	Robinson Secondary
Effect of Servomechanisms and Autogyros on Flight	Christopher Braun, Marta Hansen	Woodson High School
Moon's Distance from Earth on its Vacillation	Riley Conroy, Daniel Mun	Hayfield Secondary
Liquid Propelled Rockets	Kimberly Nguyen, Nina Y. Randorf	Marshall High School
Aspects of Motor Vehicles on Rippled Roads	Connie Chee, Nikita Dodbele	Hayfield Secondary

Plant Sciences

Effectiveness of Graft Types on Rosa Radrazz	Kanica Allagh	South County Secondary School
Drugs Damage Development	Leilani E. Green, Tiffany A. Herndon	Fairfax High School
Effect of Heavy Metals on Rate of Photosynthesis	Prashasti Agrawal, Yasmin Kamal	Thomas Jefferson H S for Science and Technology
Effect of Radiation on Plant Germination	Megan Burley, Katherine Drakeley, Michele Moneyhun	Hayfield Secondary
Effect of Different Wavelengths of Light	Jordan E. Gilmore, Sara E. Turner	Stuart High School