



First Place Winner
Fairfax County Regional Science and Engineering Fair
 March 18, 2007

Code	Project Title	Student	School
10-A-1	Agonism Between Two Epibenthic Freshwater Decapods	Alexander Kim	Thomas Jefferson H S for Science and Technology
11-A-2	Sugars Effect on Learning Ability & Hyperactivity	Caylen Eckman	Lee High School
12-A-1	A Study of Salinity and Fish Abundance & Diversity	Caitlin Sheldon	Thomas Jefferson H S for Science and Technology
12-A-3	Improving Malaria Diagnosis in African Penguins	Victor Zhu	Thomas Jefferson H S for Science and Technology
09-B-1	Effect of Wording on Memorization of Advertising	Kelly Fox	Oakton High School
10-B-2	Does the Brain Compute Mathematical Risk?	Aditya M. Palepu	Thomas Jefferson H S for Science and Technology
11-B-2	Personality Type on Performance on MC Tests	Erika E. Swartz	West Potomac High School
TM-B-2	The Effect of Music Genre on Test Performance	Caitlin Ayoub, Kim McMasters	Langley High School
TM-B-3	Mating Behavior of Betas Varying in Color and Sex	Navdeep Kaur, Elizabeth Lee, Sneha Ryali	Centreville High School
12-C-1	Correlation-Cmyc & ER/Vim Status in Breast Cancer	Deepti Garg	Thomas Jefferson H S for Science and Technology
12-C-3	Simulation Study on Cholesterol-binding Protein	Rishi Singh	Hayfield Secondary
TM-C-2	Effect of Chemicals on Respiration of S.Cerevisiae	Vivian Dang, Monica Erviti	Centreville High School
TM-C-8	Daphnia Metrics	Bharath Krishnamurthy, Sheela Saidha	Lake Braddock Secondary School
12-D-1	The Effect of Wnt11 on Cardiogenesis & Myogenesis	Avigile Baehr	Thomas Jefferson H S for Science and Technology
12-D-3	Immunomagnetic Separation of Terminal Fragments	Byron Smith	Thomas Jefferson H S for Science and Technology
09-E-7	Up, Up and Away	Katherine Bannon	Centreville High School
10-E-3	The Effect of Pressure on Crown Ethers	Maneeshika Madduri	Thomas Jefferson H S for Science and Technology
10-E-4	Analysis of Sugar Concentration in Fruits	Olga Korostelina	Woodson High School
10-E-7	Stearic Acid Effects the Burn Time of Paraffin	Marta Hansen	Woodson High School
11-E-7	Spectral Transmission of Cochineal Dye at pH Level	Christopher Moad	Madison High School
11-E-8	Effects of Surface Area on Lead-Acid Batteries	Nathan Hardesty-Dyck	Herndon High School
12-E-2	New Model for Hydrophobic Hydration	Sarah Marzen	Thomas Jefferson H S for Science and Technology
12-E-3	Electrochemically Tested Nanoparticle Paints	Yang Yang	McLean High School
TM-E-2	Synthesis and Analysis of OLED Emitters	Leo Ahnn, Stephen Ammann	Thomas Jefferson H S for Science and Technology



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TM-E-6	Analysis of Water Quality by Spectroscopy	Arjun Dayal, Andrew Pyrak	Thomas Jefferson H S for Science and Technology
TM-E-8	What Hygroscopic Compound Absorbs Most Water?	Joseph Camilo, Nichole Chandler, David Junta	South County Secondary School
TM-E-17	The Suitability of CD-Rs as an Archival Medium	Theo Leiss, Tobias Leiss	Lee High School
TM-E-21	Effect of Detergents on Lipstick Stain Removal	Komal Dhir, Tugee Karageyer	Centreville High School
12-F-1	Artificial Neural Networks Recognizing Gestures	Joel E. Shor	Thomas Jefferson H S for Science and Technology
12-F-3	Pheromone Modification for Dynamic Ant Algorithms	Ryan Ward	Thomas Jefferson H S for Science and Technology
TM-G-2	The Effects of Martian Surface Age on TARs	Marta Sparrow, Lisa Weber	Thomas Jefferson H S for Science and Technology
10-H-1	Removal of Crayon Stains From Walls	Becca Christensen	Fairfax High School
11-H-4	Interior Design From The Inside Out	Jackie Birnbaum	Falls Church High School
12-H-1	Ceramo-Metallic Materials: ZRB ₂ +MO and ZRB ₂ +W	Erin Hopke	Thomas Jefferson H S for Science and Technology
12-H-3	Use of Cyclodextrins to Optimize Drug Absorption	Soumya Netti	Thomas Jefferson H S for Science and Technology
TM-H-4	Comparing Alternative Fuels	Taesung Lee, David Tran	Marshall High School
09-I-2	Effect of Quantity of Blades on Efficiency	Shahleen Ahmed	Chantilly High School
09-I-5	Effect of Pen Weight on Seismograph Sensitivity	Thomas Harmon	Chantilly High School
10-I-4	The Effect of Harmonic Frequency Vibration Dampers	Matthew Bombaugh	Lake Braddock Secondary School
10-I-6	Air Purification Using Electrostatic Precipitators	David Levonian	Robinson Secondary
11-I-1	Constructing a Needle Positioner for an STM	Julie Clemmensen	Langley High School
11-I-3	Effects of Blades on Thrust and Power Consumption	Matt Smith	Fairfax High School
11-I-5	Autonomous Navigation	Raumi Sidki	Langley High School
11-I-6	Feel the Heat	Antoine Muller	Marshall High School
12-I-1	Speech Synthesis Via Degree Freedom Extraction	Ivan Papusha	Thomas Jefferson H S for Science and Technology
TM-I-1	A High Speed Race	Henry Helmes, David Raffman	Langley High School
TM-I-3	Can We Build a Hovercraft That Can Move a Person?	Jack Carter, Andrew Jordan	Fairfax High School
TM-I-7	Lego Mindstorms NXT Scorpion	Nora Jones, Deanna Kohnstam	Westfield High School
TM-I-10	Diagonal Structure Positioning & Optimal Strength	Issac Kwon, Gillian Seok	Langley High School
TM-I-11	Cooling a Computer with Liquid Submersion	Caitlin Brown, William Ross, Erin Tamargo	Lake Braddock Secondary School



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TM-I-13	What's The Dam Problem?	Michelle Beatty, Mina Recta	Chantilly High School
12-J-1	Thermal Conversion: Nano Carbon Particulates	Frederick Mako	Thomas Jefferson H S for Science and Technology
12-J-2	Corrugated Spar Performance During Reentry	Anastasia Rumiantsev	Thomas Jefferson H S for Science and Technology
TM-J-1	The Effect of Air Channels on Lift of the Aircraft	Jackie Rosas, Patrick Rosas	Centreville High School
10-K-1	Streams and Shrubberies: A Saga of Soggy Science	Carl Stankwitz	Centreville High School
10-K-8	Dendroclimatological Climate Reconstruction	Katherine Costa	Robinson Secondary
12-K-3	Shenandoah River Smallmouth Bass: LH-PCR Analysis	Peter Bojo	Thomas Jefferson H S for Science and Technology
TM-K-3	The Effects of ATP on Bioluminescence	Eric Noh, Dennis Shiraev, David Stem	Robinson Secondary
TM-K-13	DNA variation and Photosynthetic Productivity	Bhum-jun Kim, Aaditya Madala	Chantilly High School
TM-K-17	Soy Isoflavone on the Fecundity of Artemia Salina	Samantha Dodbele, Elena Tenore	Hayfield Secondary
12-L-1	Effect of Riparian Buffer Size on Stream Health	Zachary Tillett	West Potomac High School
TM-L-2	The Bioremediation of an Oil Spill	Bong Choi, Brandon Grilli, Michael Hyon	Centreville High School
TM-L-3	Got Oil? A Study of Oil Clean-up on Duck Feathers	Danielle Chambers, Amy Olivero	Woodson High School
TM-M-1	Rigging a Coin Flip	Betsy Khol, Curtis Khol	Madison High School
09-N-3	Caffeine as a Natural Pesticide Against Crickets	John Clark	Madison High School
10-N-2	Effect of Phytic Acid on Iron Absorption	Christina Knippler	Chantilly High School
11-N-2	The Effect of Coca Cola on Teeth	Gene Yoo	Centreville High School
TM-N-2	The Study of Caffeine on the Heart Rate of Daphnia	Dylan Honig, Seth Mc Chesney, Daniel Yang	Westfield High School
10-O-3	The Effect of Spices on E. coli	Nikitha Reghu	Chantilly High School
11-O-1	Arabinose Metabolism of Halobacterium sp. NRC-1	Ava Mainieri	Madison High School
12-O-1	Development of a qPCR Assay for Borrelia lonestari	HaoQi Li	Thomas Jefferson H S for Science and Technology
TM-O-5	Effect of Photosynthesis on MFCs Using Chlorella	Eli Chen, Andrew Li, Benjamin Ranard	Thomas Jefferson H S for Science and Technology
10-P-12	The Effect of Air Drag on Geometric Solids	Arman Majumder	Herndon High School
11-P-2	Effect of Humidity on Sports Performance	Leah Soukup	Chantilly High School
11-P-3	Temperature-Viscosity Relationships in Fluids	Alex Schudel	Langley High School
12-P-2	Modeling Impurity Transport in Fusion Plasma	Raillan Brooks	Thomas Jefferson H S for Science and Technology



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12-P-3	Metamaterials with Negative Indices of Refraction	Aleksander Drozdetski	Thomas Jefferson H S for Science and Technology
12-P-5	Cotranslational Protein Folding Lattice Models	Peiyu (Jonathan) Wang	Thomas Jefferson H S for Science and Technology
12-P-6	Dynamics of Curved DNA	William Zeng	Thomas Jefferson H S for Science and Technology
TM-P-5	Effect of Blade Angles on Wind Energy Generation	Manjot Jassal, Cynthia Kathir, Zarmeena Waseem	Robinson Secondary
TM-P-7	Proportionality of Trebuchet's Arm to the Range	Alex Crespo, Ben Hudson	South County Secondary School
TM-P-9	The Effect of Frontal Surface Area on Drag Force	Jacob Merlin, Scott Miller	Oakton High School
TM-P-14	Properties of Liquids and Surface Tension	Tejasri Chandrabhatla, Divya Murali, Celina Suh	Westfield High School
TM-P-16	Validity of HDOP as a Predictor of GPS Accuracy	Michelle Baca, Sanah Baig, Nina Peji	Hayfield Secondary
TM-P-26	Electric Arcs and You!	Cameron Cassady, Jonathan Maiorana	Madison High School
09-Q-3	The Effect of Magnetic Fields on Plant Growth	Mai Abdel-Ghani	Marshall High School
TM-Q-4	Thirsty? Water Percentage in Fruits and Vegetables	Lana Hoang, Eunice Seo, Jennifer Sung	Westfield High School
TM-Q-15	Will They Survive?	Vivien Bui-Huynh, Hannah Keem, Kristina Lee	Lake Braddock Secondary School