



TRI COUNTY SCIENCE & TECHNOLOGY FAIR

PUTNAM <> WESTCHESTER <> ROCKLAND

Organized by **The Putnam Children's Discovery Center, Inc.**

A not for profit organization per 501 (c) 3

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ANNOUNCING THE 2009 WINNERS of the TRI COUNTY SCIENCE & TECHNOLOGY FAIR

The Putnam Children's Discovery Center, located at 854 Route 6 Mahopac, New York completed it's sixteenth annual **TRI COUNTY SCIENCE & TECHNOLOGY FAIR** held on Saturday April 25, 2009 at The White Plains High School 550 North St White Plains, NY. The best and the brightest from grades K-12; public and private schools in Westchester, Rockland and Putnam Counties were judged by professional scientists in this regional competition. There were an impressive 225 exhibits on display. The Judge Edith Miller Excellence in Education, for the best exhibit in middle school went to **Austap Klymko** from PEARLS School (Yonkers, NY) The Marilyn Reiner Science in Education Award for the top high school score went to **Mariel Henkoff** from Scarsdale HS. To learn more or to compete in the Tri County Science & Technology Fair email JNewman@DiscoveryCtr.org or call (845) 621-1260. Next year's fair will be April 24, 2010.

The Fair was produced with corporate sponsorship: Grand Sponsors: Consumers Reports and the Judge Edith Miller Excellence in Education Fund, additional funds were received from the participating schools. Special thanks to Gino's Trattoria (Mahopac, NY). The Fair is done with cooperation from Tim Selg, and the White Plains HS Research Department, Science Teachers Association of NYS and the many volunteers from The Putnam Children's Discovery Center.

The top ten High school scores doing individual research were:

Psychology	Mariel Henkoff	A Comparison between the Effects of Life and Recorded Music on Food Consumption in People with Dementia	Scarsdale HS
Health & Medicine	Avri Sainte	Interactions between Knob-associated Histidine-rich Protein (KAHRP) and Red Blood Cell Protein Ankyrin	Sleepy Hollow HS
Biology	Ethan MacKenzie	Mechanisms of transport of gap junction protein connexin 43 to the plasma membrane	Scarsdale HS
Biology	Derek Racine	The Role of Akt-dependent Inhibition of Gsk3 in the mtor and wnt Pathways	John Jay HS
Environment	Samisha Bansal	Feasibility Study of Wind Power for My School	Rye Country Day School
Environment	Katherine Caswell	Comparative Occupancy and Habitat Selection of Barred Owls and Great Horned Owls within Mianus River Gorge Preserve Using Call Surveys	Yorktown High School
Environment	Lulu Mu	Modeling the effect of climate change on Ixodes scapularis and Lyme disease through representation of the epidemiological triangle	Scarsdale HS
Health & Medicine	Leah Bushin	Stereological Assessment of Neurodegeneration in Niemann-Pick Type C Disease	Scarsdale HS
Biology	Enfu Keith Shoda	The Alternatively Spliced Isoforms of Fibroblast Growth Factor Receptor 2 and their Differential Roles	Edgemoont HS
Math/Computers	Daniel Daks	A Mathematical-Logic Based Approach to Network Intrusion Detection	Scarsdale HS

2009 Tri County Science & Technology Fair Winners

MARILYN REINER EXCELLENCE IN SCIENCE AWARD

over all top score on the high school level

Marief Henkoff	A Comparison between the Effects of Life and Recorded Music on Food Consumption in People with Dementia	Scarsdale HS
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JUDGE EDITH MILLER EXCELLENCE IN EDUCATION AWARD

over all top score on the middle school level

Austap Klymko	Hydrogen and Acid-Metal Reaction	PEARLS School
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HIGH SCHOOL FIRST PLACE

Biology (tied)	Ethan MacKenzie	Mechanisms of transport of gap junction protein connexin 43 to the plasma membrane	Scarsdale HS
Biology (tied)	Derek Racine	The Role of Akt-dependent Inhibition of Gsk3 in the mtor and wnt Pathways	John Jay HS
Chemistry	Harry Oppenheimer	Controlled Crystallization of Calcium Oxalate Defined Surface by Microcontact Printing Technique	Pelham Memorial HS
Environment	Katherine Caswell	Comparative Occupancy and Habitat Selection of Barred Owls and Great Horned Owls within Mianus River Gorge Preserve Using Call Surveys	Yorktown HS
Engineering / Technology	Jonathan Varga-Sabo	The Effectiveness of Current Computer Cooling Methods in Stabilising the Temperature of a Simulated Processor at Full Load	White Plains HS
Psychology	Marief Henkoff	A Comparison between the Effects of Life and Recorded Music on Food Consumption in People with Dementia	Scarsdale HS

MIDDLE SCHOOL FIRST PLACE

Biology	David Jackson, Genevieve Sambrook	How Different Types of Music Affect Blood Pressure	Rye Neck Middle School
Chemistry	Austap Klymko	Hydrogen and Acid-Metal Reaction	PEARLS School
Earth / Space	Skye Malone	Solar Storm	PEARLS School
Engineering / Technology	Nicole Bulzacchelli, Brooke Severance	Hydrogen Power	George Fischer MS
Environment	Tyler Pager	Effect of Classroom Lighting on Achievement	Rye Country Day School
Math / Computers	Bram Wollowitz	Music, Resonance, and Vibration	Rye Neck Middle School
Physics	Hunter Lyon	The Effect of Temperature on the Strength of Metals	Rye Neck Middle School

HIGH SCHOOL SECOND PLACE

Biology	Enfu Keith	Shoda	The Alternatively Spliced Isoforms of Fibroblast Growth Factor Receptor 2 and their Differential Roles	Edgemont HS
Chemistry	Fernando	Luo	Analysis of Trichloroacetic Acid in Private Wells and Public Water Supplies=Determining By-product Formations	White Plains HS
Environment (tied)	Samisha	Bansal	Feasibility Study of Wind Power for My School	Rye Country Day School
Environment (tied)	Lulu	Mu	Modeling the effect of climate change on Ixodes scapularis and Lyme disease through representation of the epidemiological triangle	Scarsdale HS
Health / Medicine	Leah	Bushin	Stereological Assessment of Neurodegeneration in Niemann-Pick Type C Disease	Scarsdale HS
Psychology	Jake	Rosen	The Impact of Family Factors on Empathy	Sleepy Hollow HS

MIDDLE SCHOOL SECOND PLACE

Biology	Hannah Youseff, Steven Youseff		Effects of Drugs & Alcohol on the Human Brain	George Fischer MS
Chemistry (tied)	Rachel Cohen		Cavities in a Can	Rye Neck Middle School
Chemistry (tied)	Adam Kapilow		Your Brain on Autopilot	Rockland Country Day School
Earth / Space	Peter Budd		Making Static Electricity	C.V.Starr Intermediate
Engineering / Technology	Daniel Borkenstein		Dome Sweet Dome"	Edgemont Jr/Sr HS
Environment	Paolo Caponong, Theodore Kim		Bacteria in Drinking Water	PEARLS School
Math / Computers	Allison DiGregorio, Samantha Schneider		Art by Design	George Fischer MS
Physics	Dennis Devey		Magnetohydrodynamic Boats	John Jay Middle School

HIGH SCHOOL THIRD PLACE

Biology	Sydney	Gaylin	The Role of Intron Sequences Downstream of the 5' Splice Site in Pre-mRNA Splicing	Edgemont HS
Environment	Jane Madelyn "J.J."	Luceno	Sustainable Aquaculture: Maximizing Duckweed Protein Content Through Fertilization	Yorktown High School
Health / Medicine	Daniela	Parra	Murine Model during Pre and Post Stages of Human Luus and Cognitive Recognition	White Plains HS
Psychology	Tyler	Lipperman	The Effects of EDTA Chelation on the Functioning Levels of Children with Autism Spectrum Disorders	Yorktown High School

MIDDLE SCHOOL THIRD PLACE

Biology	Alexandra Taber		The Stroop Effect: Does It Send Everyone for a Loop?	George Fischer MS
Chemistry (tied)	Riley Mallet		Race to Corrosion	Cherry Lane Elementary
Chemistry (tied)	Phillip DiSarro, Jack Revkin		How fast and far can soap go with different lubricant?	Garrison School
Earth / Space	Joseph DaSilva		What Is the Effect of Miracle Grow on Plant Growth?	St. Joseph's School
Engineering / Technology	Aaron Bailey		Saltwater + Freshwater = Clean Energy	St. Columbanus
Environment (tied)	Justin Ferrara		Feel the Burn	C.V. Starr Intermediate School
Environment (tied)	Daniel Blake, Nicholas Hudock		Acid Rain	Cherry Lane Elementary
Math / Computers	Alorah Saffran		i Rumor Has It	Rockland Country Day School
Physics	Asa Westerdale		The Tensile Strength of Common Household Items	The Melrose School

ELEMENTARY AWARDS

AWARD	NAME	PROJECT TITLE	SCHOOL
BIOLOGY			
Outstanding	Nina Acevedo	Expanding Beans	St. Columbanus
Outstanding	Michael Ambrosio	To Grow or Not to Grow?	The Melrose School
Outstanding	Kassie Kastopoulos	What Do I Smell Like?	Rockland Country Day School
Outstanding	Will Sambrook	Which foods will my hamster choose?	F. E. Bellows
Excellent	Michela Fedele	Flowers and Dye	St. Ann's
Excellent	Michael Reich	Why Do We Get Headaches?	St. Columbanus
Excellent	Eddie Jo Barry	How TV Impacts Homework	Garrison School
CHEMISTRY			
Outstanding	Amanda Fultz	Don't Be So Dense	St. Ann's
Excellent	Shaun Cunningham	Why Do Some Things Glow	St. Columbanus
Excellent	Kevin Dyckman	I Heard It Through the Grapevine That Raisins Can Actually Dance	St. Columbanus
Excellent	Deanna Espinoza	Can You Blow up a Balloon with a Banana?	St. Ann's
Excellent	Brendan Feehan	The Cleaning Power of Detergent	St. Joseph's School
Excellent	Ayodele Obe	What Makes Water Hot?	Rockland Country Day School
ENVIRONMENTAL			
Excellent	Elise Simon	It's a tiny environment: Biomes	Rockland Country Day School
EARTH/SPACE			
Outstanding	Molly Dignam	Crystals!	St. Joseph's School
Outstanding	Shantanu Jha	Which liquids form into icicles first and last?	F. E. Bellows
Excellent	Marquelle Bell	Tornado in a Bottle	St. Columbanus
ENGINEERING/TECHNOLOGY			
Outstanding	Emily Crook	Which is the most efficient use of water - bath or shower?	F. E. Bellows
Outstanding	Justin Magalona	Magnets and Levitation	St. Ann's
Excellent	Jeacy Espinoza	Mini Bot	St. Ann's
Excellent	Michael Haag	Bottle Rocket Launcher Fueled by Air and Water	St. Columbanus
Excellent	Coby Pohn	The Amazing Sponge Glove	Rockland Country Day School
PHYSICS			
Outstanding	Jacob Engelbrecht	Sink or Swim	The Melrose School
Outstanding	Isabel Martinez	Magic Move	St. Ann's
Outstanding	Tiffany Pimentel	What Is A Magnet?	St. Ann's
Excellent	Robby Alter	What amount of light is best to grow tomatoes?	F. E. Bellows
Excellent	Chance Catucci	Battery Power	St. Joseph's School
Excellent	Nicole McMullen	Lifting with Levers	St. Columbanus
Excellent	Christopher Onate	Aerodynamics in Cars	St. Columbanus
Excellent	Josh Yanko	How Big Is Your Field?	Rockland Country Day School